CITY OF SANTA FE
NEW MEXICO

NATIONAL POLLUTION
DISCHARGE ELIMINATION SYSTEM

Notice of Intent
and
MS4 Storm Water Management Plan and Program

May 15,2008

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Table of Content

Part I

Notice of Intent

NOI Application

Signature and Certification..... 2-3
Introduction..... 4
Mission and goals..... 5
The Santa Fe River Watershed..... 6
Santa Fe River Watershed Analysis and Assessment..(Attachment) A1
Sub-Watershed Analysis...(Attachment)..... A2
Self Analysis (current status of SWQM) A3
WRAS...(Attachment)..... A4
Map – MS4 Boundaries/Storm Water System...(Attachment A)..... A5

Part II

Storm Water Management Plan

SWMP and supporting documentation

SWMP -City of Santa Fe..... 1-31
IDDE Ordinance -City of Santa Fe...(Attachment)..... A1
Terrain Storm Water Mgmt. Ordinance -CSF...(Attachment)..... A2
SWMP Public Notification Postings...(Attachment)..... A3
SWMP Public Comment...(Attachment)..... A4

Part III

The Endangered Species Act Eligibility

BA and supporting documentation

Biological Assessment Eligibility Report 1-5
Santa Fe County Threatened & Endangered Species List..(Attach) A1
State of NM Dept. of Game & Fish Comment Letter..(Attachment) A2
Map – Endangered Species...(Attachment)..... A3

Part IV

Historic Properties Eligibility

NHPAER and supporting documentation

NHPA Eligibility Report..... 1-2
Study Methodology..... 3-4
City of Santa Fe Adopted Policies..... 5-8
National Historic Property listing..... A1
NMHPD Consultation Letter A2
Outline of properties listed under scenario 2..... A3
Outline of properties listed under scenario 3..... A4
Map – 7.5' Quadrangles...(Attachment)..... A5

Notice of Intent (NOI)

Santa Fe, New Mexico

National Pollutant Discharge Elimination System (NPDES)
General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4)
Permit No. NMR040000

3.2.1	Legal Name of the MS4 Operator and the name of the urbanized area:	**City of Santa Fe** **Santa Fe – Urbanized Area** The city's full name, *"La Villa Real de la Santa Fe de San Francisco de Asisi", or "The Royal City of the Holy Faith of Saint Francis of Assisi"*
3.2.2	Full Facility Mailing Address:	**200 Lincoln Avenue** **P.O. Box 909** **Santa Fe, NM 87504-0909** **505-955-6509**
	Office Responsible for compliance with Small MS4 Permit Compliance and Development / Implementation of Storm Water Management Plan (SWMP); and the Mailing Address:	**Storm Water Management Division** **1142 Siler Road** **P.O. Box 909** **Santa Fe, NM 87504-0909**
3.2.3	Contact Person: Telephone No:	**Jim L. Salazar** **505-955-2132**
3.2.4	Location Map:	The small MS4 consisting of **Santa Fe** city limits (automatically designated under 40 CFR 122.32 (a)(1)) is an urbanized area, in **Santa Fe County** New Mexico. Attached is the location map showing the boundaries of the urbanized MS4, including streets and the storm sewer system. Part III Attachment.
3.2.5	MS4's Area of Land Served:	The total area of the MS4 boundary contains **41.15 square miles.**

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3.2.6	Latitude and longitude:	The approximate center of the MS4 (City of Santa Fe) is **35°40'2"N** and **105°57'52"W.**
3.2.7 & 3.2.12	Name of the waters the MS4 storm system discharges to; the TMDL:	The major receiving water is the **Santa Fe River** an ephemeral stream. The MS4 **Does Not** discharge to water for which a **TMDL** applicable to discharge from the MS4 has been approved. (The New Mexico Environment Department Surface Water Quality Bureau has not established a TMDL for the Santa Fe River segment 20.6.4.98; (Assessment Unit ID NM-9000.A_61.)
3.2.8	Entities that applicant is relying on to satisfy permit obligations:	The MS operator is **NOT** relying on another governmental entity to satisfy one or more permit obligations.
3.2.9	SWMP:	Draft Storm Water Management Plan (SWMP)- Part II pg ; IDDE Ordinance- Part II pg. ; Public Notice of the draft SWMP- Part II pg. ; and Public Comments on the draft SWMP Part II pg. .
3.2.10	ESA:	Part 1.5, Endangered Species Act (ESA) Eligibility Provisions Documentation. Part III Attachment
3.2.11	NHPA:	Part 1.6, National Historic Preservation Act (NHPA) Eligibility Provisions Documentation. Part IV Attachment
3.2.13	Signature and 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 of knowing violations."* *Signed:* Galen Buller *Date:* 6/10/08 *Galen Buller, City Manager*

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INTRODUCTION:

The City of Santa Fe must comply with the Federal National Pollution NPDES regulations by submitting this comprehensive Stormwater Plan as a Notice of Intent (NOI) with the United States Environmental Protection Agency (EPA) to obtain a permit authorizing the discharge of pollutants into the Santa Fe River and its tributary arroyos. This document must be submitted to the EPA. The city will then have five years to fully implement its plan.

All municipalities in the USA, regardless of size or location and the urbanized areas (UAs) of counties as operators of large, medium and small municipal separate storm sewer systems (MS4s) must develop a plan, and implement and enforce a stormwater management program to reduce the discharge of pollutants from all sources to the "maximum extent practicable" (MEP) through the use of Best Management Practices (BMPs). Note that in Santa Fe, this system includes the Santa Fe River and its tributary arroyos.

MISSION and GOALS

The NPDES MS4 Storm Water Program holds the following stated mission:

- Implement a nationwide storm water management program to control polluted discharges from MS4s into the nation's waterways.
- Protect water quality and satisfy the mandates of the federal Clean Water Act.

The City of Santa Fe intends to use a watershed approach to design programs to meet this overarching goal, and at the same time to achieve the following related goals and overall objectives of the storm water program:

- Reduce the discharge of pollutants to the City's MS4 "to the maximum extent practicable";
- Protect surface water quality by infiltrating stormwater runoff to treat it and, at the same time, help to recharge the aquifers;
- Satisfy the appropriate water quality requirements of the Clan Water Act as measured by the total maximum daily loads in the Santa Fe River (TMDLs) including sediment and stream bottom deposits;
- Protect, enhance and restore wildlife habitat along the river and arroyos, minimizing any undesirable effects;
- Reduce the threat of flooding;
- Use storm water to create and enhance parks and open spaces;
- Educate citizens to care for and treat storm water as a resource and, generally;
- Restore the watershed to health.

THE SANTA FE RIVER WATERSHED:

The health of the watershed environment is the context within which the City of Santa Fe and the County's urban area are situated is critical to the people who live there. Water quantity as well as water quality are inextricably entwined and are both dependent on restoring this "health". The New Mexico Environment Department (NMED) Surface Water Quality Bureau funded the Santa Fe River Watershed Restoration Action Strategy (WRAS) the goals of which are reflected above. Short term objectives area listed as well in the document that relate to each long term goals (see NOI Part I Attachment WRAS). This Storm Water Management Plan and Program will fulfill the NPDES permitting requirements as well as help to achieve these goals.

The Santa Fe River Watershed is comprised of several major tributaries and many minor tributaries of the Santa Fe River. This NPDES Plan is based upon a systems approach that will address the issues and problems of the Santa Fe River Watershed as a whole as well as each of the major tributaries listed below.

1. **Santa Fe River – 4 Reaches:** plus
   - Arroyo Ancha
   - Arroyo Saiz
   - Arroyo Mascaras
     - Arroyo Piedra
     - Arroyo Barranca
     - Arroyo Rincon
     - Arroyo Rosario
2. **Arroyo de los Chamisos:** plus
   - Arroyo de los Pinos
   - Arroyo de los Chamisos – Tierra Contenta Reach
3. **Arroyo de los Frijoles**
4. **Arroyo Calabasas and Arroyo Gallinas**
5. **Arroyo Hondo**

The Santa Fe River is a tributary of the Rio Grande in northern New Mexico. Its watershed is defined as Hydrologic Unit Area (HUA) #1302020103. It forms the central third of the Rio Grand/Santa Fe watershed and is identified in New Mexico's unified watershed Assessment as a category 1 watershed - one of the state's watersheds in most urgent need of restoration.

Please note that all arroyos or tributaries of the Santa Fe River are "ephemeral streams" as are the lower reaches of the river as well. These arroyos only flow during storm events.

Notice of Intent Application

Attachment A1

Santa Fe River Watershed Analysis and Assessment

2.2 SANTA FE RIVER WATERSHED ANALYSIS and ASSESSMENT

A general overall analysis and baseline assessment of the Santa Fe River Watershed will be based on the following areas of concern and potential sources of pollution and will serve as the basis for the sub-watersheds' analysis. Much of the following information has been synopsized from the Watershed Restoration Action Strategy; Jan. 2002 (WRAS Appendix A).

- plan area boundaries and assumptions: EPA defines the Urbanized Area (UA) to contain the densest portions of the city and the area of Santa Fe County to the city's southwest. However, due to the impact on the stormwater system from all arroyos (tributaries) of the Santa Fe River to that river, including massive amounts of sediment as a pollutant, this Plan addresses several arroyos and their impacts which are not within the EPA boundary but which contribute heavily to the problems of stormwater pollution (see Figure 1 and Map 1).

- physical watershed characteristics: The Santa Fe River watershed is a sub basin of the Rio Grande, with its headwaters at Santa Fe lake below Lake Peak in the Sangre de Cristo range. The watershed supports two reservoirs and nine public wells in addition to a large number of private wells. The watershed is heavily wooded on the easternmost reach and is owned primarily by the US Forest Service with some inholdings of the City. After leaving the steep foothills to the east of the city, the river historically created an alluvial fan and the escarpment seen north of the city. The River at this point has been severely constrained and has sustained downcutting, most severe beginning below St. Francis Dr. where the large Arroyo Mascaras drains into it. Scouring and degradation continues along the River past the city limits and into the County.

  Despite the dependence of a City of at least 62,203 resident persons (Census 2000) and an estimated 1 to 2,000,000 visitors per year, on the Santa Fe River and its aquifer, poor watershed and river management have resulted in almost complete dewatering of the river between the Alameda/Camino Cabra bridge and the City's wastewater treatment plant.

  There are several major subwatersheds or drainages within the Santa Fe River Watershed and the City limits that are analyzed in greater detail in Section 2.3. Other major drainages are located in the County. In addition, there is one active acequia, the Acequia Madre which currently carries untreated stormwater along the Westside of the City against its intended purpose and historical function. See the WRAS, Appendix A for a more complete narrative on the Santa Fe River watershed as a whole.

- topography: Ground surface elevations in the Santa Fe River watershed range from 12,408 feet above mean sea level at the top of Lake Peak to 5,220 feet at the Rio Grande. Slopes are extremely steep (often 40 degrees or greater) in the upper watershed, from the ridgeline down to the zone where the pre Cambrian rocks of the Sangre de Cristo mountains are overlapped by the deep sediments of the Santa Fe Group. (at the base of the foothills. Most of the rest of the watershed is gently rolling, except in the deeply incised basalt canyon of the River between la Cieneguilla and La Bajada, where the canyon walls are nearly vertical.

  The historic City of Santa Fe at 7,000 feet in elevation was situated on the alluvial fan of the Santa Fe River as it emerges from the foothills of the Sangre de Cristo Mountains to the east of town (see Maps 2 and 3). Later populations spread primarily to the south and southwest, along the River channel and into the Arroyo de los Chamisos drainage basin. Later, newer houses were build on the hillsides and escarpment slopes to the north and east. Development of the urbanized areas reflects the topography, especially in the earlier settlement patterns. Steeper slopes of the Santa Fe River escarpment and the foothills are visual landmarks as well as historic constraints to growth. These wooded areas were used for community fire wood cutting and grazing purposes with buildings arranged on flat land, around the Santa Fe plaza configuration (mandated by the king of Spain) the River and its acequia system. Today's topography reflects the many new roads and building footprints constructed in the foothills, escarpment areas and hills between drainage basins and their arroyos.

- soils: The soils in the approximate central half of the Santa Fe River watershed are termed Haplargids-Torriorthents-Calciorthids that do not hold water available to mesophytic plants for long periods: These soils take up water slowly. Most precipitation runs off the limy soils on actively eroding slopes creating large scale and widespread erosion problems large sediment deposits. These soils occur on most of the developed urban area with its many acres of impervious surfaces further exacerbating the problem.

  The soils east of town shift to Ustorthents-Cryoborolls; newly forming soils on recently exposed rock or sediments and deep, dark well drained forest soils. The lower third of the watershed includes a unit of Torriorthents/Rough Broken Land near the confluence of the Santa Fe River and the Rio Grande: limy soils on rough broken land. See the WRAS (Appendix A) for a description of the soils of the upper, middle and lower watersheds as well as the geohydrology of the area. Older Soil Conservation Service soils descriptions for the Santa Fe region include:

  - Pojoaque-Rough broken land association- moderately sloping to moderately steep, deep, loamy and gravelly soils; on upland terraces and rough broken land;
  - Panky-Pojoaque-Harvey association- level to hilly, deep, loamy to clayey soils; on old alluvial fans and dissected, eroded terraces; and
  - Chimayo-Mirabal-Supervisor association- moderately sloping to very steep, shallow to moderately deep, loamy and very gravelly or very stony soils; on mountain foot slopes.

- climate conditions: The climate of the Santa Fe area, exclusive of high mountain regions, is semiarid continental. The summers are relatively cool and pleasant and the winters are crisp, clear, and sunny. Wind velocities are generally low except for short periods in the spring. However, during the "monsoon" season, June, July and August, violent thunderstorms do occur which can produce very heavy storm events of short duration in relatively small areas, producing localized flooding and severe erosion problems. Currently, and in general Santa Fe experiences and shares severe drought conditions with the rest of the southwest region of the country. Rainfall which averages 12-14 inches a year was 9.79 inches for 2001, measured at the Santa Fe Airport.

- land uses and population densities: The Santa Fe region supports approximately 23,000 acres of typical mixed density urban development land uses, including 11,600 acres of parkland, with the exception of highly polluting heavy industries although there is sand and gravel mining and grazing in the County that contribute pollutant to the River. City zoning categories are variations on the general categories of Residential, Commercial/Office and Industrial. The downtown is primarily visitor oriented businesses and government offices. Residential neighborhoods are generally located off of heavily traveled major arterials that tend, with a few exceptions, to support strip mall commercial, office and shopping center uses. Regardless of land use, most stormwater enters the storm sewer/acequia/arroyo/river system and is untreated.

  Population densities are greatest in the south and western portions of the city but population growth in the lands outside the city limits added nearly as many people as did growth in the city from 1980 to 1994 and has been growing at a rate of 2.7% since then, but at very low densities because of generally more affordable land costs. The City has a general infill policy to help manage sprawl, but also contributes to higher densities and more impervious surfaces, definitely adding more stormwater runoff to the system. See Figure 2 for sub-watershed population characteristics.

- population characteristics, projected growth rates and trends: Within the city limits and by the end of 2001, the city contained 23,885 acres of land

(37.3 square miles) within its corporate limits. According to Census 2000, the city's population was 62,203 as of April 1, 2000, having grown at a rate of 1.1% annually during the 1990's. The city has an average population density of 1,668 persons per square mile which is slightly higher than Las Cruces (1,426) but lower than Albuquerque (2,483).

Based on national demographic trends and recent local migration trends, it is projected that the central region of Santa Fe County will contain 115,000-126,000 residents by 2020, an increase of between 20,000 and 30,000 residents (see map [from general plan]). However, due to the drought and the water shortage, these growth figures may be optimistic.

Population estimates for the NPDES proscribed Santa Fe, NM Urbanized Area and sub-watersheds within the City limits are as follows (Census 2000 Summary File 3 (SF3). See also Figure1:

- Total population 80,509
- Subwatershed pop 6,079
- Total 86,588
- City Population -62,385
- UA outside City of Santa Fe 24,385

Population characteristics have been estimated based on percentages of block group *areas* for each of the sub-watersheds from Census 2000 Block Group characteristics (see Section 2.3 and Figure 2).

- age of neighborhoods: The oldest neighborhoods within the Urban Area are closest to the downtown core of the city, along Agua Fria St. (the historic Camion Real) West Alameda and in the regional traditional villages of Agua Fria and Tesuque. Large subdivisions to the south and west of the central core were built primarily in the 1970s, 80s and 90s. Tierra Contenta a large growth community was planned and construction started in the 1990s. Large lot subdivisions have primarily occurred in the County outside the City Limits during the 1980s, and 90s to the present day although the lack of water has recently caused plans for this major future growth to the southand west of town to come under intense scrutiny.

- condition of our receiving waters/pollutant loadings/TMDLs (see State of New Mexico 303(d) List for Assessed Stream and River Reaches and TMDLs Appendix C).

  Water quality problems in the reach below the wastewater treatment plant have resulted in the establishment of Total Maximum Daily Load (TMDL) standards for stream-bottom deposits (sediment), chlorine, dissolved oxygen and pH in that reach of the Santa Fe River (from the Cochiti Pueblo to the Santa Fe Waste Water Treatment Plant, as a step toward

attaining the designated uses of that reach as a marginal cold water fishery, a warm water fishery and for livestock watering. The following assumptions may be made regarding TMDLS and their relationship to the City of Santa Fe's NPDES permit application:

- MS4s are now considered to be point sources for stormwater runoff;
- The City will make a small contribution to the total wasteload allocation that is now designated to the City's downstream wastewater treatment plant;
- There has been a margin of safety built into this total allocation which may not be necessary for the Wastewater Treatment Plant;
- because the TMDL waste load allocation of the Wastewater treatment plant is far below what it actually generates, the City's share would be within those limits;
- That the BMPs for the watershed as a whole and for all of the sub-watersheds will produce a reduction in all pollutant loads; and
- There has not been guidance on this issue forthcoming from EPA.

Based on these assumptions, the City of Santa Fe and the State of New Mexico Surface Water Quality Bureau may be directed to take one or more of the following options:

- Reevaluate the values used for load allocation;
- Modify the load allocation to include point sources other than the Wastewater Treatment Plant; and/or
- Allow the City of Santa Fe to use the margin of safety in the load allocation until further determinations are made.

- monitoring capabilities: Currently, the City of Santa Fe has stream flow monitoring capabilities but no stormwater water quality monitoring program. The Santa Fe River has been gauged since 1913 at a point below McClure Reservoir. There are two other gauges on the River within the municipal watershed: one on the uncontrolled river just where it flows into McClure Reservoir, and one below Nichols Reservoir. Two other gauges were installed by the City on paired sub-basins on the south bank of McClure Reservoir in 1999. Another two gauges were installed were installed by the City in the urban reach of the River in 1999; one just above St. Francis Drive and the second above Frenchy's Park. There is a gauge near the mouth of the Santa Fe Canyon above La Bajada that has operated since 1970. Under this Plan's Best Management Practices, the City will undertake a comprehensive stormwater pollution monitoring plan and program to measure the results of the Minimum Control Measures other BMPs.

- impervious surfaces: The impervious surface area within the City of Santa Fe was calculated from the zoning map and streets "edge of road" map

polygons. Several assumptions may be made based on the zoning categories and existing development code standards:

- Current code allows a developer to put 100% impervious surfaces on residential lots at their discretion, even though the code calls for dedicated open space.
- Some pervious surfaces are assumed to accompany landscaping requirements for commercial and industrial development.
- Some setbacks are required in the downtown historic district.
- The water shortage and emphasis on ever increasing residential densities to allow for affordable housing inhibits landscaping and permeable and pervious surface areas.
- Without some sort of code amendments, impervious surfaces will dominate the urban landscape with the exception of the under-national-average acres of parks and open spaces.

See Map 1 for the basis of analysis of impervious surfaces by zoning category and by sub-watershed. The sub-watersheds and arroyo tributaries are evaluated for pollutant sources and impervious surfaces based on more specific parameters in Section 2.3.

- number and type of streets and storm sewers (see Figure 4 and Map 5). The City of Santa Fe has a data base of storm sewer drop inlets but not storm sewer lines. In order to formulate an Infrastructure Plan, the locations and descriptions of these sewers will be researched.

City of Santa Fe, New Mexico

Eligibility Report
National Historic Preservation Act

2007 National Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems

5 May 2008

Prepared for
New Mexico State Historic Preservation Office (NMSHPO)
United States Environmental Protection Agency District 6

Prepared by
Jim L. Salazar, CFM
City of Santa Fe, New Mexico
Stormwater Management Division

INTRODUCTION

The City of Santa Fe is the operator of a small Municipal Separate Storm Sewer System (MS4). This report describes the City of Santa Fe stormwater system and its relationship and effects on properties listed in the National Register of Historic Places.

In compliance with the Clean Water Act (CWA), this report is part of a larger Notice of Intent (NOI) submitted to the United States Environmental Protection Agency (EPA) Region 6, by the City of Santa Fe, New Mexico. The purpose of the NOI is to gain coverage under General Permit Number NMR040000, effective January 1, 2007. Coverage under this permit provides authorization to discharge pollutants to waters of the United States under the National Pollutant Discharge Elimination System (NPDES).

In order to be eligible for coverage under this permit, the City of Santa Fe must be in compliance with the National Historic Preservation Act. According to General Permit NMR040000, Section 1.6.1, discharges may be authorized under this permit based on the following:

Section 1.6.1.1 Criterion A: storm water discharges, allowable non-storm water 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 Secretary of the Interior; or

Section 1.6.1.2 Criterion B: the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) (or equivalent tribal authority) that outlines all measures the MS4 operator will undertake to mitigate or prevent adverse effect to the historic property.

This report will demonstrate that each of the 38 listed properties in the City of Santa Fe was closely studied and that compliance with all provisions of the National Historic Preservation Act has been and will continue to be achieved.

STUDY METHODOLOGY

Each site was inspected, photographed and evaluated individually. Multiple photographs of each property were taken. Photos of each facade of the historic buildings were taken when possible and because each property was evaluated for storm drainage patterns, photos of surrounding drainage features were taken as well.

Using GIS mapping, 2005 aerial photography maps were produced indicating each property's distance to the Santa Fe River and major arroyos. The property's location relative to the City of Santa Fe Historic District and its sub-districts was also noted. The maps also indicate the subject property's current FEMA one-percent annual chance floodplain (one-hundred year flood) status and when needed, the *new* FEMA one-percent annual chance floodplain maps (effective date June 17, 2008) were also included. Evaluation was done based on both sets of floodplain maps for those properties affected by one-hundred year floodplains.

Evaluation of existing nearby storm water system components was done as well and each map shows the location of city storm sewer inlets and outfalls. Topography and the property's vertical elevation relative to nearby arroyos and the river were considered as well.

Finally, existing City of Santa Fe policies regarding historical preservation and storm drainage were considered when formulating conclusions.

In accordance with Appendix B: Historic Properties Eligibility Guidance, the listings have been categorized within two of the three possible scenarios in order to meet permit eligibility criteria for protection of historic properties:

(1) If historic properties are not identified in the path of an MS4's storm water and allowable non-stormwater discharges or where construction activities are planned to install BMP's to control such discharges (e.g., diversion channels or retention ponds), then the MS4 operator has met the permit eligibility requirements under 1.4.6.1.

(2) If historic properties are identified but it is determined that they will not be affected by the discharges or construction of BMP's to control the discharge, the MS4 operator has met the permit eligibility criteria under Part 1.4.6.2.

(3) If historic properties are identified in the path of an MS4's storm water and allowable non-storm water discharges or where construction activities are planned to install BMP's to control such discharges, and it is determined that there is the potential to adversely affect the property, the MS4 operator can still meet permit eligibility criteria under Part 1.4.6.2 if he/she obtains and complies with a written agreement with the appropriate State or Tribal Historic Preservation Officer which outlines measures the MS4 operator will follow to mitigate or prevent those adverse effects. The operator should notify EPA before exercising this option.

City of Santa Fe Adopted Policies

Historic Preservation Policies

City of Santa Fe policies regarding historic preservation are famous and a very important part of the city's cultural fabric. They are among the most successful in the country. According to the *City of Santa Fe Historic Districts Handbook*, the *City of Santa Fe Historic Districts Ordinance* is one of the oldest ordinances of its type in the United States. Initially adopted in 1957, the intent of the ordinance is to preserve existing historic buildings, and to encourage new construction to be similar in architectural style, form and materials, so as to achieve a harmonious appearance in the city's historic districts. The historic districts cover over 6.25 square miles and most of the listed properties are within the districts boundaries.

The *City of Santa Fe General Plan Update of 1999*, in its *Heritage Resource Management Section 2.3.1* states:

> The City of Santa Fe is committed to the appropriate management and sensitive treatment of archaeological, cultural, and historic resources. To that end, in 1986 the city accepted designation as a Certified Local Government from the National Park Service in accordance with the National Historic Preservation Act of 1966. As a Certified Local Government, the city is responsible for integrating historic preservation activities into its function as a local government.

In the same document, in the *Implementation* section it is said:

> Santa Fe's heritage preservation program has developed well beyond the preservation of isolated buildings. In order that the city's sense of history and sense of place be cared for, Santa Fe has taken steps to sensitively manage its identified heritage resources. These resources include archaeological sites, architecturally and historically significant building and structures, acequias, historic neighborhoods, and other cultural landscape features.
>
> Planning efforts should bear in mind the importance of appropriately managing the unique qualities of Santa Fe.

The *General Plan's Heritage Resource Implementing Policy* number 2-1-I-2 states that the city should:

> Lead by example through the integration of sensitive treatment of heritage resources in city-sponsored Public Works and Parks and Recreation maintenance and construction projects.

Finally, under *Heritage Resource Management Section 2-3-I-1* it is stated:

> Make management of archaeological, cultural, and historic resources a municipal commitment through integration of sensitive treatment of such resources in city-sponsored projects, including self-enforcement of municipal ordinances.

Stormwater Management Policies

The City of Santa Fe General Plan and the *Santa Fe City Code* focus on minimizing runoff, especially during peak-flow periods. The General Plan - stated strategies to reduce increased runoff include small-scale site water retention facilities, water harvesting, and detention ponds. In the *Natural Resource Management and Conservation* chapter, the *General Plan* includes the following *Guiding Policies*:

- 8-1-G-1 Protect, enhance, and restore environmental and biological resources, including the Santa Fe River and habitats that are sensitive or declining, to restore and to prevent or reduce their loss within the Santa Fe area.
- 8-1-G-2 Consider riparian and wildlife corridors as a single, interconnected habitat, the numerous limbs of which branch throughout the entire watershed, providing access and habitat to a wide range of plant and animal species and preserving the natural character of the landscape.

The *City Code*, in the *Terrain and Stormwater Management Regulations*, lists the following items under the *Purpose* section:

- Minimize destruction of the natural landscape;
- Treat stormwater runoff as a valuable natural resource by encouraging water collection and infiltration on-site;

- Minimize the erosion and degradation of arroyo channels and improve the condition of the channel where possible;
- Respect, protect, maintain and restore natural drainage ways, wetlands, bosques, floodplains, steep slopes, riparian vegetation and natural wildlife areas;
- Provide aesthetically pleasing solutions to stormwater management and erosion control measures by integrating measures into the overall landscape and site design.

The Santa Fe City Code requires that new development retain or detain increased stormwater runoff on-site, thereby minimizing it. Landscaping standards encourage and reward the preservation of open space and the use of harvested runoff. Strong emphasis is placed on the protection and preservation of natural drainage features and especially the natural state of the arroyos. Disturbance of natural drainage ways is strongly discouraged and new development is required to setback a minimum of 25 feet from the banks of arroyos.

Erosion control and earth stabilization using vegetative and bioengineering techniques is preferred and structures should be aesthetically pleasing. The use of terracing and natural stone is encouraged.

The *Terrain and Stormwater Management Regulations*, in Section 14-8.2F(2)(c)(iv)C state:

Arroyo and watercourse banks shall not be armored with concrete, gabion baskets, sheet piling, rip-rap, or similar hardened material unless no reasonable alternative exists to protect public infrastructure or pre-existing structures.

Municipal Storm Sewer System

The city's storm water collection and conveyance systems in the areas of concern vary. Because of the locations of the listed properties, three distinct areas of the city are involved.

- The largest is the downtown area and surrounding neighborhoods. The major stormwater conveyance here is the Santa Fe River. The core downtown area has a somewhat developed storm sewer system consisting of short runs of underground pipes and a good number of mostly roadway storm drain inlets. These drains discharge either to the Santa Fe River or to one of the arroyos that convey to the Santa Fe River. Collection and conveyance in areas surrounding the core downtown area consists mostly of street and surface drainage, unlined channels and arroyos and some small, localized underground systems.

- Three of the listings are in the southeast region of Santa Fe. The major stormwater conveyance here is the Arroyo de Los Chamisos. Each of the listed properties is immediately adjacent to this arroyo. Collection and conveyance consists of roadway and surface drainage that is discharged directly to the Arroyo de Los Chamisos or to one of its contributory drainages. These are unlined channels and arroyos. The Arroyo de Los Chamisos discharges to the Santa Fe River in Santa Fe County.

- Two listings, one of them with multiple buildings, are located along the city's major traffic artery; Cerrillos Road. Collection and conveyance for both listings consists of surface drainage (some isolated private underground collection exists on the New Mexico School for the Deaf property) discharging to a nearby unlined arroyo.

City of Santa Fe

Storm Water Management Plan

INDEX

ITEM	CONTENT	PAGE
1.	Index	2
2.	**Executive Summary**	4
3.	Legal Authority	4
4.	Permit Coverage Area	4
5.	Endangered Species Act (ESA)	5
6.	Reporting Requirements	5
7	Storm Water Management Program	5
8.	Minimum Control Measures	5
9.	**Public Education and Outreach on Storm Water Impacts**	5
10.	Education Materials and Strategies	6
11.	Reaching Diverse Audience	6
12.	Measurable Goals	7
13.	**Public Participation**	10
14.	Strategies	11
15.	Measurable Goals	10
16.	**Illicit Discharge Detection and Elimination**	12
17.	Strategies	13
18.	Measurable Goals	14
19.	**Construction Site Runoff Control**	16
20.	Measurable Goals	17
21.	**Post-Construction Runoff Control**	19
22.	Measurable Goals	20
23.	**Pollution Prevention/Good Housekeeping**	21
24.	Measurable Goals	22
25.	**Allowable Non-Storm Water Discharges**	26

26.	**Tasks Assigned by Department**	27
27.	Storm Water Management	27
28.	Solid Waste Division	28
29.	Streets and Drainage Division	28
30.	Public Utilities Department Environmental Regulations Compliance Officer	28
31.	Parks, Trails, Open Spaces & Watershed Department	29
32.	Wastewater Division	29
33	Transit Division	29
34	Planning and Land Use Department	29
35	Motor Pool (Finance Department)	30
36	Public Information Office	30
37	Fire Department	30
38	Police Department	30
39	City Attorney	31
40	City Manager	31

Executive Summary

This Storm Water Management Plan ("SWMP") outlines the City of Santa Fe's program to comply with the Environmental Protection Agency's ("EPA") Phase II mandate to improve stormwater quality in accordance with the Clean Water Act of 1972. This program will serve to develop, implement, and enforce a stormwater management program designed to reduce the discharge of pollutants to the maximum extent possible The receiving water is the Santa Fe River. The EPA has identified six (6) minimum control measures that must be specifically addressed within this plan. The City must show **measurable goals** and **improvement** in six (6) minimum areas. Recording these results and improvements will be the responsibility of each department. The six (6) minimum areas are listed below and involve several City departments.

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

The Best Management Practices ("BMP") listed here are minimum goals based on anticipated funding levels derived from a Storm Water Impact Fee. If additional funding should become available through federal or state grants, loans approved by the Managing Body, or in-kind services, minimum control measures could be increased. Any additional efforts made by any department with the ultimate goal of improving the quality of stormwater will be documented and reported to the designated Storm Water System Manager.

Legal Authority

The City of Santa Fe has implemented an ordinance providing the city with authority to control the quality of separate stormwater discharge to its stormwater sewer system. This will include runoff discharges into public rights-of-way (streets). Its authority will address both industrial and municipal discharges. The City of Santa Fe has both the fiscal authority and legal resources to fully implement this Storm Water Management Plan.

Permit Coverage Area

The SWMP encompasses all areas within the City of Santa Fe city limits covering over 40

square miles. The City of Santa Fe has a population of 62,200 residents, 92.2 miles of major roadways and numerous storm drain outfalls discharging into intermittent water courses ("arroyos"), with potential access to the waters of the United States.

Endangered Species Act (ESA)

Potential impacts that municipal activities, residential actions, or construction projects may have on federal endangered or threatened species of concern or critical habitats are evaluated on an ongoing basis in accordance with the National Environmental Policy Act (NEPA), New Mexico Department of Game and Fish (NMDGF) and the New Mexico Environmental Department (NMED). The stormwater conveyance system has no effect with regard to endangered or threatened species of concern.

Reporting Requirements

The City of Santa Fe will submit its required report annually during the first five year term of the permit cycle. The report will include the status of compliance with the permit conditions, an assessment of the suitability of the BMPs selected and progress towards achieving the measurable goals for each of the six minimum control measures. A summary of the activities the City of Santa Fe undertakes during the reporting cycle and any changes to this plan or its measurable goals and all relevant data obtained during the reporting period will be contained in the report.

Storm Water Management Plan

The plan outlines the six minimum control measures that are expected to result in significant reductions in pollutants discharged by the City of Santa Fe. The SWMP measures and controls are consistent with the TMDL established for the Santa Fe River by incorporating the best available measures for control of sediments.

A. Minimum Control Measures

1. Public Education and Outreach on Storm Water Impacts.

The City of Santa Fe has chosen a mix of best management practices (BMPs) to address fecal coliform, yard waste, grease and oil and suspended solids and any additional impacts from stormwater discharges on the Santa Fe River and tributaries and the steps the public can take to reduce pollutants in stormwater runoff. This control measure will target homeowners, restaurants, industry, and the general public. An informed and knowledgeable community is crucial to the success of the stormwater management program. The program

estimates it will communicate with 2,000 to 2,500 people per year. As the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters, a greater compliance with the stormwater program will result. The plan has a major initiative: the use of educational materials.

a. Education Materials and Strategies

The City of Santa Fe will give residents an opportunity to voice concerns, share resources and develop strategies in regard to local environmental issues (i.e., urban growth, scenic ways, flooding, and water quality issues). It will also provide for the training of municipal employees, residents and industry by the various State, Federal, County and City agencies. Education topics might include the benefits of permeable pavement, innovative residential development design for the building community, urban watershed planning, construction certification, open space design, pet waste ordinances, and design ideas for pet walkways. The educational materials will include, but will not be limited to, the following:

(1) Brochures.

(2) Recreational Guides to educate groups (sportsmen, hikers, etc.).

(3) Alternative information sources (websites, bumper stickers, posters, etc.).

(4) A library of educational materials.

(5) Storm Drain stenciling program.

(6) Signage ("no dumping", watershed signage, etc.).

b. Reaching Diverse Audience

The public education program will use a variety of strategies in which to reach a diverse audience. Mass media campaigns will use a mix of media to generate a watershed message to our audience. Our local strategies will use various public service announcements, including multilingual posters. Our industrial outreach program will target businesses and industries that significantly impact storm drains

(restaurants and garages) through grease and oil releases. The school education program will target school age children in grades K through 12. Volunteer educators from community schools and local universities will be encouraged to conduct workshops from their natural science departments. The classes will teach students the water cycle, the watershed, the benefits of composting and stormwater runoff. The education effort will inform homeowners about the City of Santa Fe's recycling program, including proper disposal of used motor oil, chemicals, pesticides and household products.

c. **Measurable Goals**

Target Date	BMP Activity
4/07-4/08	1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2. Establish calendar for meetings;
	3. Media Relations will establish storm water hotline; create Public Service Announcements ("PSA") and brochures.
	4 Creation of Storm Water Management System Manager position in Public Works Department to manage and facilitate this program.
	5. Assess previously identified water quality problems that can be partially addressed through education.
	6. Participate in community events and provide information.
	7. Schedule speakers and establish class curriculums for public schools (composting and knowing your watershed).
	8. Educational brochures and posters created to teach owners of restaurants and garages on proper disposal of grease and oil.
	9. Proper use of pesticide and lawn chemical flyers distributed and posted at vendor

locations.

4/08-4/09

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
2. Develop and implement school curricula.
3. Multimedia PSAs created and website developed by Media Relations and ITT/MIS Department.
4. Proper use of pesticide and lawn chemical flyers distributed and posted at vendor locations.
5. Assess placement needs for "NO Dumping" signage.
6. Participate in community events and provide information.
7. Document the number of educational brochures given away to targeted industries and at community events

4/09-4/10

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
2. 25% of elementary school age children educated.
3. Continue educational visits by codes officers to educate 30% of restaurants and garages owners.
4. Document, the number of "clean up after your pets" signs posted in parks and neighborhoods.
5. Participate in community events and provide information.
6. Document the number of educational brochures given away to targeted industries and at community events.

7. Pesticide and lawn chemical information distributed through the Parks. Trails, Open Spaces & Watershed Division and the Storm Water Management Division.

4/10-4/11

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
2. 50% of elementary school age children educated.
3. Pesticide and lawn chemical information distributed through the Parks, Trails, Open Spaces & Watershed Division and the Storm Water Management Division.
4. 25% increase in the number of "Clean Up After Your Pets' signs posted in parks and neighborhoods.
5. Continue to participate in community events and provide information.
6. Document the number of educational brochures given away to targeted industries and at community events.

4/11-4/12

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
2. 75% of elementary school age children educated.
3. Survey residents to determine the effectiveness of the Storm Water Management program.
4. Pesticide and lawn chemical information distributed through the Parks, Trails, Open Spaces & Watershed Division and the Storm Water Management Division.
5. 50% increase in the number of "Clean Up After Your Pets" signs posted in parks and

neighborhoods.

6. Continue to participate in community events and provide information.

7. Document the number of educational brochures given away to targeted industries and at community events.

2. Public Participation & Involvement

The City of Santa Fe's public participation control measure will have a large public component. The city will provide educational semi-annual environmental forums. The forums will be used to announce and advertise City programs supporting stormwater efforts and designed to encourage public involvement. Support by the citizenry is crucial to the success of the storm water management plan. The measure will involve all socio-economic groups. The public participation program is a key component of the public education measure. Broader public support in the development and decision making process will minimize potential legal challenges and maximize acceptance and cooperation.

a. Strategies

Public meetings and forums will provide an opportunity to discuss various viewpoints and provide input concerning appropriate stormwater management policies and BMPs. Community volunteer cleanup projects for local arroyos and riparian corridors will be targeted. Special cleanup events will be city sponsored. An "Adopt-an-Arroyo" program will be initiated in coordination with the River Commission and Earth Works Institute. Recycling programs will be maintained to recycle glass, plastic, oil and antifreeze. These are the pollutant components identified in our storm drains and water bodies which can be recycled. A recycling program that targets these pollutants will have a major impact on improving our intermittent river and our arroyos. A phone hotline (428-3700) is maintained which can be utilized to aid enforcement authorities in the identification of polluters. An "Adopt-A-Storm Drain" or an "Adopt-An-Arroyo program, similar to "Adopt-A-Median" programs will offer individuals and groups an opportunity to monitor what is entering our arroyos and to beautify our drainage systems. The SWMP and NOI will be made available on

the City's Web site and during working hours at the Storm Water office Public comment was solicited in the development of the SWMP via residential utility billing and the local news paper.

b. Measurable Goals

Target Date	BMP Activity
4/07-4/08	1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2. Publish Public Notices of upcoming meetings and event schedules in several different print media.
	3. Volunteers groups formed. Hotline in place.
	4 Stencil drain program implemented.
	5. Establish Acceptance Program for handling, storage, and disposal of lead-acid batteries at recycling center
	6. Document the amount of materials recycled.
	7. Document the number of calls received by hotlines.
4/08-4/09	1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2. Citizen watch groups established.
	3. 20% of storm drains stenciled.
	4. Hazardous waste receiving and recycling implemented at recycling center.
	5. Confine loading and unloading activities to a designated area at recycling center.
	6. Document the number of problem/incidents resolved as a result of hotlines.
4/09-4/10	1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2. Intern Program developed.

3. Water quality samples taken and the results published

4. Document the number of participants volunteering for river and arroyo clean ups from previous year.

5. 60% of storm drains stenciled.

6. Provide Non-Recyclable covered waste storage bins and containers

7. Document the number of problems/incidents resolved as a result of hotlines.

4/10-4/11

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. 80% of storm drains stenciled.

3. Provide covered disposal containers or equivalent for residual waste materials at recycling center

4/11-4/12

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. All storm drains stenciled.

3. Water quality grab samples taken tested for fecal-coliforms and TSS, results cataloged and compared to earlier samples.

4. Document the measurable decrease in the concentration levels of the identified pollutants.

5. Document the actions taken as a result of the creation of the Storm Water Management Plan.

3. Illicit Discharge Detection and Elimination

The illicit discharge detection measure involves both municipal staff and local citizens. The City has adopted two key ordinances designed to protect surface water and ground water quality; the "Safe Drinking Water and Source Water

Protection" (25-6SFCC) and the "Stormwater Illicit Discharge Control" (13-2 SFCC). Both ordinances prohibit non-stormwater discharges and contain procedures for enforcement. The City of Santa Fe staff will locate illicit discharge problems areas through public complaints, visual screening, dry weather screening methods, and through the use of a line camera. The program will work to detect and eliminate illicit discharges.

a. Strategies

A Geographic Information System ("GIS") owned by the City of Santa Fe will be used to map the location of all storm sewer lines and outfalls and all the arroyos that receive stormwater discharges. This information will be made available to interested and/or involved parties through the city wide network. The City of Santa Fe will maintain an accurate map of the storm sewer system. Utilizing the City's Global Positioning System ("GPS") survey equipment, all outfalls which discharge into a recognized arroyo will be accurately mapped for monitoring Dry weather inspection will be performed. An accurate map of the various aspects of the stormwater system (catch basins, pipes, culverts and other stormwater structures) will also be created. Large amounts of information will be generated over time which can be utilized to identify water quality trends and generate reports. The City of Santa Fe will catalog historical sampling data. The data will be available to field personnel during inspections. This data will be key in identifying those areas of the city that have a high occurrence of illicit discharges. Other City of Santa Fe service groups (i.e., Building Code Enforcement, Sewer Maintenance, and the Fire Department) data will also be incorporated. The GIS will also allow the input of citizen complaint locations, dry weather screening, and monitoring data. A "right of entry" ordinance will be enacted to allow municipal employees access on private property for inspection in locating potential sources of illicit industrial discharges. The enforcement actions that will be taken against those properties found to be in non-compliance or that refuse to allow access to their facilities will be varied. They can range from simple cease and desist orders to suspension of water or sewer service, criminal and/or civil penalties, including charging the owner of the property for the cost of abatement. The Storm Drain System Manager will request that the industrial facilities and wastewater

treatment plants in the area submit their spill reports and monitoring results. This data will be included in the GIS for reference. If future sampling results show elevated levels of a particular pollutant then the City can focus its investigation to determine the source of the illicit discharge. City staff will begin the inspection of all commercial business for illicit discharges and compliance to the City's ordinance. They will begin this inspection program with businesses which have the highest potential to impair water quality such as, restaurants, gas & service stations, cleaners, etc. The SWMP address certain categories of non-stormwater discharges by including a list of "allowable" discharges. The list is contained herein. (pg. 26)

b. **Measurable Goals**

Target Date	BMP Activity	
4/07-4/08	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Create and maintain a current Storm Drain System Map.
	3.	Recycling program for household hazardous waste in place.
	4.	Begin Commercial Business inspection program.
	5	Implement and enforce program to detect and eliminate illicit discharges.
4/08-4/09	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Expand the current Storm Drain System Map to include various components of the system to include: catch basins, pipes, culverts, etc.
	3.	33% of outfall mapping efforts completed.
	4.	"Right of entry" ordinance in place.
	5.	15% of discovered illicit sources disconnected.

6. Outfall inspection program begun by the Storm Water Management office. Document any dry weather flows found.

7. Document the number of citizen complaints of illicit dumping into storm drains and the results of actions taken.

8 Continue Commercial business inspection program; follow up on discoveries and record actions taken.

4/09-4/10

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. 50% of storm drain system component mapping completed.

3. 35% of discovered illicit sources disconnected.

4. Outfall inspection program begun by the Storm Water Management office. Document any dry weather flows found.

5. Continue to document the number of citizen complaints of illicit dumping into the storm drain system and the results of actions taken.

6. Continue commercial business inspection program; follow up on discoveries and record actions taken.

4/10-4/11

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. 75% of outfall mapping efforts completed.

3. 50% illicit discharges eliminated.

4 Document results of outfall inspection and dry weather flow programs.

5. Continue to document the number of citizen complaints of illicit dumping into the storm

drain system and the results of actions taken.

6. Continue commercial business inspection program; follow up on discoveries and record actions taken.

4/11-4/12

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
2. 100% of outfall mapping efforts completed.
3. 70% of illicit discharges eliminated
4. Continue to document the number of citizen complaints of illicit dumping into the storm drain system and the results of actions taken
5. Document results of outfall inspection and dry weather flow programs.
6. Continue commercial business inspection program, follow up on discoveries and record actions taken.

4. Construction Site Runoff Control

The City of Santa Fe recognizes that construction sites can deposit a significant amount of silts and sediments in a short period of time. The Phase II Rule requires the City to develop and enforce a storm water management program which will manage these deposits. The City has adopted the "

Terrain and Stormwater Management" (14-8.2 SFCC) ordinance. The ordinance covers construction activities less than 1000 square feet to total land area disturbed. A supplemental ordinance is needed to address Erosion and Sediment Control of construction pollutants in its stormwater runoff. The Terrain and Stormwater Management ordinance requires all construction site materials to be controlled on site. It will require developers to submit a plan that contains measures to reduce soil erosion and practices to control sediments that have already eroded. The City already requires the approval of submitted construction plans prior to ground being broken and will now require erosion control measures for all construction, including residential. If construction commences prior to the approval of the plans, potentially heavy fines can be levied. The City reviews site plans and inspection and

enforcement authority. The City of Santa Fe will also dedicate existing staff for plan review and inspection. Once a plan is reviewed and approved by the City, City staff's job will be to ensure that the Erosion Control Plan is followed. A checklist will be completed periodically for every construction permit. An ordinance will require the developer to install and maintain those specified measures and practices agreed to in the plan Sites may be inspected for compliance and if found lacking, an inspector may issue a permit violation stop work order, fine or other measure to ensure compliance. Area-wide measures will be instituted to reduce impervious cover.

a. Measurable Goals

Target Date	BMP Activity
4/07-4/08	1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2. Construction site runoff ordinance in place.
	3 Procedures for information submitted by the public in place.
	4. Document the number of inadequate site plans reported by inspectors.
	5. List the number of stop work orders given.
	6. Document the number of BMP information brochures given to contractors
	7. Document increase in the number of bus passengers.
4/08-4/09	1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2. Procedures for site inspections implemented.
	3. Document the number of inadequate site plans reported by inspectors.
	4 Staff additions and/or assignments as needed
	5. Document the number of BMP information brochures given to contractors.

	6	Area wide measures introduced to reduce impervious cover.
	7.	Building permit fees increased by 5% to cover additional inspection responsibilities.
	8.	Document the number of enforcement actions taken.
	9.	Document increase in the number of bus passengers.
4/09-4/10	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Document the number of BMP information brochures given to contractors.
	3.	Document the number of inadequate site plans reported by inspectors.
	4.	Document the increase in the miles of bicycle routes established within the city.
	5.	Document the number of enforcement actions taken.
	6.	Document the amount of naturally vegetated land area preserved.
	7.	Document increase in the number of bus passengers.
4/10-4/11	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Document the number of inadequate site plans reported by inspectors.
	3.	Document the number of enforcement actions taken.
	4.	Document the number of BMP information brochures given to contractors.
	5.	List the amount of bicycle path miles

established

6. Document the amount of naturally vegetated land area preserved.

7. Document increase in the number of bus passengers.

4/11-4/12

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. Maximum compliance with ordinance.

3. Document the number of BMP information brochures given to contractors.

4. Document increase in the number of bus passengers.

5. Document improved clarity and reduced sedimentation levels in local water bodies.

5. Post-Construction Runoff Control

The City of Santa Fe proposes to address the Post-Construction Runoff Measure with structural and non-structural BMPs. The controls seek to reduce the amount of impervious cover by increasing natural land set-aside for conservation and to use pervious areas for more effective stormwater management. The City of Santa Fe is looking at ways to reduce the amount of runoff in new subdivisions. The Terrain and Stormwater Management ordinance (14-8.2 SFCC) contains provisions for site restoration, long-term maintenance and inspection responsibilities. One such way could be re-evaluation of the drainage standards to encourage regional ponds and parks. This will provide additional pervious area and native flora and fauna. The net increase of scenic features will positively impact neighborhoods aesthetically, and increase residential property values. Open space will be managed by the City of Santa Fe Parks, Trails, Open Space and Watershed Division. Some may be privately maintained or managed by the Public Works Streets & Drainage Department as defined by new drainage standards. This will establish a legal entity responsible for both the natural and recreational open space. An arroyo buffer directive will be encouraged by City development staff which could provide for riparian areas being restored with native vegetation. The zone would be 50'-100' wide on both sides of the bank. The buffer should

(if possible) include the 100-year flood plain delineation. Structural BMPs include the use of dry-ponds which will principally be used in the urban environment. This technology has the benefit of being retrofitted in the developed portions of the City. The use of porous pavement in 10% of municipal projects is being considered. The proposed recommendation would authorize that ten-percent of municipal resurfacing projects would utilize porous cement. However, numerous considerations will be required to determine the feasibility for its use.

a. Measurable Goals

Target Date	BMP Activity	
4/07-4/08	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2	Ordinance or other regulatory mechanism in-place for alternative pavers (subject to feasibility study results).
	3.	Strategies developed that include both structural and non-structural BMPs.
	4.	Arroyo buffer zone ordinance in place.
4/08-4/09	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Porous pavement studies begin.
	3.	Document the reduction of impervious cover.
	4.	Document the number of arroyo miles modified and vegetated.
	5.	Document the amount of acreage preserved as buffers.
4/09-4/10	1.	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Document the reduction of impervious surfaces associated with new and redevelopment projects.
	3.	Evaluation of the effectiveness of ponding

systems.

4. Document the number of arroyo miles modified and/or vegetated.

5 Document the amount of acreage preserved as buffers.

4/10-4/11

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. Document the reduction in impervious cover.

3. Document changes in water quality as a result of runoff leaving buffer areas.

4. Document the amount of acreage preserved as buffers.

5. Document the amount of arroyo miles modified and vegetated

6. Evaluation of the effectiveness of ponding systems.

4/11-4/12

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. 10% of municipal projects utilize porous cement (subject to feasibility studies).

3. Document the amount of acreage preserved as buffers.

4. Document the reduction in impervious cover in landscaping areas.

5. Evaluation of the effectiveness of ponding systems.

6. Pollution Prevention/Good Housekeeping

The City of Santa Fe Pollution Prevention/Good Housekeeping Measure for municipal operations program goal is to reduce pollutant runoff from municipal operations. The vehicle maintenance program requires that all city-owned vehicles be regularly inspected to eliminate the amount of oil, grease, and fluid leaks. The vehicle list will be available for public viewing upon request.

Additionally, the City of Santa Fe provides mass transit in the form of buses and bicycle routes within the city. Concentrating development along public transportation corridors could result in the development of fewer roads and less vehicle miles traveled. Street sweeping will be performed on all city streets at a frequency based on the most traveled streets and busy intersections being cleaned more often than lesser traveled ones. Outfalls will be regularly checklist inspected, trouble outfalls will also be inspected and maintained after every storm event. The City of Santa Fe Public Works Department, Streets & Drainage Division will strive to use only vacuum-equipped street cleaners for all street cleaning The City of Santa Fe is considering adopting smart growth initiatives to promote open space and native landscaping. An Integrated Pest Management ("IPM") brochure for city residents to find alternatives for traditional chemical pesticides will be offered. A community education program will teach residents xeriscaping, non-chemical pest control, and removal of pests by non-chemical means. Lawn pesticide application brochures will be available to municipal employees and city residents. City of Santa Fe Parks, Trails, Open Space and Watershed Division will institute a pesticide reduction program. The plan calls for a feasible reduction in pesticides and herbicides applied over the next four (4), years at all municipal parks and buildings.

a. **Measurable Goals**

Target Date	BMP Activity	
4/07-4/08	1	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Vehicle maintenance program in place (list posted).
	3.	Street sweeping and outfall cleaning continued.
	4	Storm drains with high pollutant loadings will be inspected after every storm event.
4/08-4/09	1	Solicit Storm Water Rule funding by way of grants, loans and in-kind services.
	2.	Parks, Trails and Watershed Division pesticide program initiated.

3. Identify potentially hazardous materials utilized in City operations, their characteristics and use.

4. The assigning and/or hiring of additional staff to monitor municipal operations.

5. Records kept to identify quantity, receipt date, service life, users and disposal routes for containerized materials storage.

6. Document the number of IPM brochures distributed to citizens.

7. Document the number of municipal employees trained in IPM awareness.

8. List the number of outfalls cleaned and the amount of trash removed

9. Document the number of miles of street cleaned and the amount of trash removed from streets.

10. List the number of preventative maintenance procedures performed on city owned vehicles.

4/09-4/10

1 Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. Document the number of IPM brochures distributed to citizens.

3. Continue to Identify potentially hazardous materials utilized in City operations, their characteristics and use.

4. Document the number of municipal employees trained in IPM awareness.

5 List the number of outfalls cleaned and the amount of trash removed.

6. Document the number of miles of street cleaned and the amount of trash removed

from streets.

7. Document the number of municipal employees trained in lawn pesticide application.

8 List the number of preventative maintenance procedures performed on city owned vehicles.

9 Records kept to identify quantity, receipt date, service life, users and disposal routes for containerized materials storage.

10. Determine the effectiveness of the pollution prevention program.

4/10-4/11

1. Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. Document the number of IPM brochures distributed to citizens.

3. Document the number of municipal employees trained in IPM awareness.

4 List the number of outfalls cleaned and the amount of trash removed.

5. Document the number of miles of street cleaned and the amount of trash removed from streets.

6. List the number of preventative maintenance procedures performed on city owned vehicles.

7 Document the reduction in pesticides and herbicides use for city maintained properties.

4/11-4/12

1 Solicit Storm Water Rule funding by way of grants, loans and in-kind services.

2. Document the number of IPM brochures distributed to citizens.

3. Document the number of municipal employees trained in IPM awareness.

4. List the number of outfalls cleaned and the amount of trash removed.

5. Document the number of miles of street cleaned and the amount of trash removed from streets.

6. Document the reduction in pesticides and herbicides use.

7. If funding is available the City will establish a river and arroyo restoration program consisting of water retardation structures such as rip-rap embankments, swales, check dams, etc. The City will encourage re-vegetation activities by volunteer groups.

Allowable Non-Storm Water Discharges

A. The following categories of non-stormwater discharges are allowable as long as they are not significant contributors of pollutant to waters of the United States. Below are the allowable sources of non-stormwater discharges included in this Storm Water Management Plan. The City of Santa Fe Storm Water Management staff will locate illicit discharges associated with non-stormwater discharges through public complaints, visual screening, and dry weather screening methods.

- Water line flushing
- Landscape irrigation & lawn watering
- Diverted stream flows
- Flows from riparian habitats and wetlands
- Rising ground waters
- Uncontaminated pumped groundwater or spring water
- Uncontaminated groundwater infiltration to the storm drain system
- Uncontaminated non-industrial roof drains
- Uncontaminated water from crawl space pumps
- Discharges from de-chlorinated potable water sources including storage tanks
- Uncontaminated foundation drains
- Air conditioning condensate
- Footing Drains
- De-chlorinated swimming pool discharges
- Street wash water
- Discharges or flows from emergency fire fighting activities (does not include discharges from fire fighting training activities)
- Fire hydrant flushing
- Other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.)

Tasks Assigned by Department: (5 Year Plan)

A. **Storm Water Management, Public Works Department: Responsible Party – Director**

1. Creation or assignment of Storm Water System Manager position.
2. Compliance monitoring and record keeping of assigned tasks.
3. Provide person for public education program. (Maximum once per month.)
4. Advertisement of Storm Water Hotline in City Publications.
5. Development and implementation of public service announcements for radio, television and print media.
6. Creation and maintenance of website.
7. Printing of brochures, information sheets for residents and businesses.
8. Creation or assignment of Storm Drain Monitor Position.
9. Enforcement of EPA Storm Water Management Plan regulations.
10. Document the number of BMP information brochures given to contractors
11. Construction inspection for municipal projects.
12. Provide signage for arroyos and Santa Fe River.
13. Maintain a Storm Water Hotline and document results.
14. Initiation of "Adopt-A-Storm Drain" or "Adopt-An-Arroyo" Program.
15. All above in Bilingual form when possible.
16. Complete and maintain current map of storm drain system.
17. Map location of all outfalls.
18. Begin documented outfall inspection record.
19. Dry weather outfall inspection and record keeping of results.
20. Development and implementation of public service announcements for radio, television and print media.
21. Implementation of ordinances as referenced in the City Storm Water Plan.
22. Inspect storm drains with high pollutant loadings after every storm event
23. Completion of annual report to EPA documenting progress of this plan.

B. **Solid Waste Division, Public Works Department: Responsible Party - Director**

1. Records kept to identify quantity, receipt date, service life, users and disposal routes for containerized materials storage.
2. Continue to operate recycling center.
3. Continue to receive yard waste from individual residents.
4. Begin hazardous material exchange program. Educate public regarding these services.
5. Establish acceptance program for handling, storage and disposal of lead-acid batteries.
6. Document the amount of materials recycled.
7. Hazardous waste receiving and recycling implemented at recycling center.
8. Confine loading and unloading activities to a designated area at recycling center.
9. Provide non-recyclable covered waste storage bins and containers.
10. Provide covered disposal containers for residual waste materials at recycling center.
11. Facility Improvements for implementation of BMPs.

C. **Streets and Drainage Division, Public Works Department: Responsible Party – Director**

1. Street sweeping and outfall cleaning records kept.
2. Document the number of miles of streets cleaned and the amount of trash removed.

D. **Public Utilities Department: Responsible Party – Environmental Regulations Compliance Officer**

1. Sampling of storm water records kept.
2. Identify potentially hazardous materials, their characteristics and use.
3. Testing of grab samples for fecal-coliforms and TSS, further tests if required by EPA.

E. **Parks, Trails, Open Spaces, Watershed, Public Works Department: Responsible Party – Director**

1. Compliance monitoring and record keeping of assigned tasks.
2. Provide person for public education program. (Maximum once per month).
3. Provide pet waste signage and baggies in parks.
4. Identify potentially hazardous materials utilized by department staff, their characteristics and use.
5. Records kept to identify quantity, receipt date, service life, users and disposal routes for containerized materials storage.
6. Parks, Trails, Open Space and Watershed maintained storm drains will be inspected after every storm event.
7. Community education brochures will teach residents xeriscaping, non-chemical pest control, and removal of pests by non-chemical means.
8. List the amount of bicycle path miles established.
9. Document the number of municipal employees trained in lawn pesticide application
10. Document the number of IPM brochures distributed to citizens.
11. Document the number of municipal employees trained in IPM.
12. Document the reduction in pesticides and herbicides use.

F. **Wastewater Division, Public Utilities Department: Responsible Party – Director**

1. Provide documentation for all spill reports (sanitary).

G. **Transit Division, Public Works Department: Responsible Party – Director**

1. Document city bus rider totals and any increase in riders during the permit period.
2. Facility Improvements for implementation of BMPs.

H. **Community Development: Planning and Land Use Department Responsible Party – Director**

1. Compliance Monitoring and record keeping of assigned tasks.
2. Construction Inspection for Commercial and Residential Construction.

3. Provide person for public education program. (Maximum once per month).

4. Update Building Code to require Erosion Control Plan for all construction Inspection of Erosion Control Plans.

5. Enforcement of EPA Storm Water Management Plan regulations.

6. Procedures for site inspections implemented.

7. Document the number of inadequate site plans reported by inspectors.

8. List the number of stop work orders given

9. Schedule of inspection of privately maintained storm drain and ponding systems.

10. Document the amount of naturally vegetated land area preserved.

11. Building permit fees increased by 5%.

12 Inspection of Erosion Control Plans.

I. **Motor Pool, Finance Department: Responsible Party – Director**

1. Vehicle maintenance program in place.

2. List number of preventative maintenance procedures performed on city owned vehicles.

3. Compliance monitoring and record keeping of operations and utility fleet.

4. Facility Improvements for implementation of BMPs.

J. **Public Information Office: Responsible Party – Media Manager**

1. Record keeping of assigned tasks.

2. Provide person for public education program. (Maximum once per month).

K. **Fire: Responsible Party – Fire Chief**

1. Reduce pollutants during spill cleanup and Non-Emergency activity.

2. Provide person for public education program. (Maximum once per month).

L. **Law Enforcement: Responsible Party – Chief of Codes Enforcement**

1. Compliance Monitoring and record keeping of assigned tasks.

2. Provide person for public education program. (Maximum once per month).

M. **Legal: Responsible Party – City Attorney**

1. Prosecution of violators.

N. **Administration: Responsible Party – City Manager**

1. Ensure City of Santa Fe compliance with the Storm Water Management Rule.
2. Ensure program education of municipal employees.
3. Records kept of those educated.

Storm Water Management Plan

Attachment A1

City of Santa Fe

Illicit Discharge Control Ordinance

CITY OF SANTA FE, NEW MEXICO

ORDINANCE NO. 2005-3

AN ORDINANCE

CREATING A NEW SECTION 13-2 SFCC 1987 REGARDING STORMWATER ILLICIT DISCHARGE CONTROL.

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF SANTA FE:

Section 1. A new Section 13-2 SFCC 1987 is ordained to read:

13-2 [NEW MATERIAL.] STORMWATER ILLICIT DISCHARGE CONTROL.

Section 2. A new Section 13-2.1 SFCC 1987 is ordained to read:

13-2.1 [NEW MATERIAL.] Title.

Article 13-2 may be cited as the Stormwater Illicit Discharge Control Ordinance.

Section 3. A new Section 13-2.2 SFCC 1987 is ordained to read:

13-2.2 [NEW MATERIAL.] Legislative Findings.

The governing body of the city has determined that the federal Clean Water Act, 33 U.S.C. 1251 et seq., requires the city of Santa Fe, to implement a stormwater management plan to comply with stormwater discharge permits issued under the national pollutant discharge elimination system (NPDES), which includes the requirement to detect and eliminate illicit discharges of pollutants into the municipal storm drain (storm sewer) system

Section 4. A new Section 13-2.3 SFCC 1987 is ordained to read:

13-2.3 [NEW MATERIAL.] Purpose.

The purpose and intent of the Stormwater Illicit Discharge Ordinance is to protect and

enhance the water quality of watercourses and groundwater by prohibiting non-stormwater discharges to the city's storm drain system.

Section 5. A new Section 13-2.4 SFCC 1987 is ordained to read:

13-2.4 [NEW MATERIAL.] Definitions.

For the purpose of this Ordinance, the following definitions shall apply:

Abate means to bring to a halt, eliminate or, where that is not possible or feasible, to suppress, reduce, or minimize.

City means the city of Santa Fe.

Clean Water Act means the federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), and any subsequent amendments thereto.

Hazardous material means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illicit discharge means any direct or indirect non-stormwater discharge to the storm drain system that contains any pollutant(s).

Illicit connection means either of the following:

A. Any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drain system including but not limited to any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a government agency; or

B. Any drain or conveyance connected from a commercial or industrial

establishment to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the city.

NPDES stormwater discharge permits mean general, group, and individual stormwater discharge permits which regulate facilities defined in federal NPDES regulations pursuant to the Clean Water Act.

Pollutant means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: Paints, varnishes, and solvents; oil, anti-freeze, and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; branches, trimmings, refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing or remodeling a building or structure (including but not limited to sediments, slurries, mud, plasters, and concrete rinsates); and noxious or offensive matter of any kind.

Pollution means the human-made or human-induced alteration of the quality of waters by waste to a degree which unreasonably affects, or has the potential to unreasonably affect, either the waters for beneficial uses or the facilities which serve these beneficial uses.

Premises means any lot or combination of contiguous lots held in single ownership and the buildings, structures or other appurtenances thereon.

Storm drain system means publicly-owned facilities and appurtenances operated by the city by which stormwater is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, curbs, gutters, drop inlets, piped storm drains (culverts), pumping facilities, retention and detention basins, natural and human-made or altered drainage channels and arroyos, reservoirs, and other drainage structures which are within the city and are not part of a publicly owned treatment works as defined at 40 CFR 122.2.

Stormwater means any surface flow, runoff, snow melt, and drainage consisting entirely of water from rain and snow storm events.

Waters of the United States means surface watercourses and water bodies as defined at 40 CFR 122.2, including all natural waterways, channels, and depressions in the earth that may carry water, even though such waterways may only carry water during rain and snow storms and may not carry stormwater at and during all times and seasons.

Section 6. A new Section 13-2.5 SFCC 1987 is ordained to read:

13-2.5 [NEW MATERIAL.] Responsibility for Administration.

The city shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted or duties imposed upon the city may be delegated in writing by the city to persons or entities acting in the beneficial interest of or in the employ of the city.

Section 7. A new Section 13-2.6 SFCC 1987 is ordained to read:

13-2.6 [NEW MATERIAL.] Prohibition of Illicit Discharges.

A. No person shall discharge or cause to be discharged any direct or indirect non-stormwater discharge to the storm drain system that contains any pollutants that cause or contribute to a violation of local, state or federal water quality standards.

B. Discharges from the following activities will not be considered a source of pollutants to the storm drain system and to waters of the U.S. when properly managed to ensure that no potential pollutants are present, and therefore they shall not be considered illicit discharges unless determined to cause a violation of the provisions of the Clean Water Act, state law or this Ordinance:

(1) Water line flushing;

(2) Uncontaminated pumped groundwater and other discharges from potable water sources;

(3) Landscape irrigation and lawn watering;

(4) Rising groundwater;

(5) Uncontaminated groundwater infiltration to the storm drain system;

(6) Uncontaminated foundation drains;

(7) Uncontaminated water from crawl space pumps;

(8) Air conditioning condensation;

(9) Uncontaminated non-industrial roof drains;

(10) Springs;

(11) Individual residential car washing;

(12) Flows from riparian habitats and wetlands; or

(13) Dechlorinated swimming pool discharges; street wash waters; and flows from fire fighting.

C. The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered by the federal environmental protection agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations. If requested, a copy of said NPDES permit, waiver, or waste discharge order shall be provided to the city within ten (10) days of request.

Section 8. A new Section 13-2.7 SFCC 1987 is ordained to read:

13-2.7 [NEW MATERIAL.] Prohibition of Illicit Connections.

The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

Section 9. A new Section 13-2.8 SFCC 1987 is ordained to read:

13-2.8 [NEW MATERIAL.] Waste Disposal Prohibitions.

No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any component of the storm drain system, or water of the U.S., any pollutant.

Section 10. A new Section 13-2.9 SFCC 1987 is ordained to read:

13-2.9 [NEW MATERIAL.] Watercourse Protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive vegetation, and other substances that would pollute, contaminate, obstruct, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. The owner or lessee shall not remove healthy bank vegetation beyond that actually necessary for maintenance, nor remove said vegetation in such a manner as to increase the vulnerability of the watercourse to erosion. The property owner shall be responsible for maintaining and stabilizing that portion of the watercourse that is within their property lines in order to protect against erosion and degradation of the watercourse originating or contributed from their property.

Section 11. A new Section 13-2.10 SFCC 1987 is ordained to read:

13-2.10 [NEW MATERIAL.] Requirement to Notify the City of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into stormwater, the storm drain system, or water of the U.S. from said facility, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of a hazardous material

said person shall immediately notify emergency response officials of the occurrence. In the event of a release of non-hazardous materials, said person shall notify the city's public works department in person or by phone or facsimile no later than 5:00 p.m. of the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the city's public works department within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

Section 12. A new Section 13-2.11 SFCC 1987 is ordained to read:

13-2.11 [NEW MATERIAL.] Authority to Inspect.

Whenever necessary to make an inspection to enforce any provision of this Ordinance, or whenever the city has probable cause to believe that there exists any condition which constitutes a violation of this Ordinance, the city may enter such premises at all reasonable times to inspect the same and to inspect and copy records related to stormwater discharge compliance. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the city is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

Section 13. A new Section 13-2.12 SFCC 1987 is ordained to read:

13-2.12 [NEW MATERIAL.] Authority to Sample, Establish Sampling Devices, and Test.

During any inspection as provided herein, the city may take any samples and perform any testing deemed necessary to aid in the pursuit of the inquiry or to record site activities. In the event the owner or occupant denies permission to sample, establish sampling devices, and test, the city is hereby empowered to seek assistance from any court of competent jurisdiction in

obtaining such samples, sampling devices, or tests.

Section 14. A new Section 13-2.13 SFCC 1987 is ordained to read:

13-2.13 [NEW MATERIAL.] Requirement to Eliminate Illicit Discharges.

The city may require by written notice that a person responsible for an illicit discharge immediately, or by a specified date, discontinue the discharge and, if necessary, take measures to eliminate the source of the discharge to prevent the occurrence of future illicit discharges.

Section 15. A new Section 13-2.14 SFCC 1987 is ordained to read:

13-2.14 [NEW MATERIAL.] Requirement to Eliminate Illicit Connections.

The city may require by written notice that a person responsible for an illicit connection to the storm drain system comply with the requirements of this Ordinance to eliminate the connection by a specified date.

Section 16. A new Section 13-2.15 SFCC 1987 is ordained to read:

13-2.15 [NEW MATERIAL.] Violations; Penalties, and Enforcements.

A. It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of the Illicit Discharge Control Ordinance. Each day the violation continues shall be considered a separate offense.

B. Whenever the city finds that a person has violated or is violating a requirement of the Ordinance, the city may:

(1) Issue a written notice of violation;

(2) File a citation in municipal court as set forth in Section 1-3 SFCC 1987;

(3) Commence a civil action in district court for appropriate relief, including injunctive relief;

(4) Determine that the violation is a threat to public health, safety, and welfare and is therefore declared a nuisance, and as such may be abated as set forth elsewhere in this Code.

C. A notice of violation shall state with reasonable specificity the nature of the violation and set forth a deadline for correction of the violation pursuant to the requirements set forth in the notice. The notice shall further advise that, should the violator fail to correct the violation pursuant to the requirements, the city will take any and all measures necessary to abate the violation and and/or restore the property and the expense thereof shall be charged to the violator pursuant to Section 13-2.17 SFCC 1987.

Section 17. A new Section 13-2.16 SFCC 1987 is ordained to read:

13-2.16 [NEW MATERIAL.] Abatement by City.

If after the notice is issued, the violation has not been corrected pursuant to the requirements set forth in said notice, the city or a contractor, designated by the city, shall request permission to enter upon the subject private property and if granted, is authorized to take any and all measures necessary to abate the violation and/or restore the property. In the event the owner or occupant refuses entry after a request to enter and abate has been made, the city is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

Section 18. A new Section 13-2.17 SFCC 1987 is ordained to read:

13-2.17 [NEW MATERIAL.] Charging Cost of Abatement/Liens.

Within 30 days after abatement of the violation by the city, the city shall notify the owner of the property of the cost of abatement, including administrative costs. If the amount due is not paid within 10 days, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. The city may assess a fee for the placement of the lien.

Section 19. A new Section 13-2.18 SFCC 1987 is ordained to read:

13-2.18 [NEW MATERIAL.] Exigent Circumstances Abatement.

The city, pursuant to its police powers, is authorized to require immediate abatement of any violation of this Ordinance that constitutes an immediate threat to the health, safety or well-

being of the public. If any such violation is not abated immediately as directed by the city, the city and/or its agents are authorized to enter onto private property and to take any and all measures required to remediate the violation for the protection of the community. Any expense related to such remediation undertaken by the city shall be fully reimbursed by the property owner and/or responsible party. Any relief obtained under this Ordinance shall not prevent the city from seeking other and further relief authorized under this Ordinance.

Section 20. A new Section 13-2.19 SFCC 1987 is ordained to read:

13-2.19 [NEW MATERIAL.] Severability.

The requirements and provisions of this Ordinance and their parts, subparts and clauses are severable. In the event that any requirement, provision, part, subpart or clause of this Ordinance, or the application thereof to any person or circumstance, is held by a court of competent jurisdiction to be invalid or unenforceable, it is the intent of the governing body that the remainder of the Ordinance be enforced to the maximum extent possible consistent with the governing body's purpose of detecting and eliminating illicit discharges.

PASSED, APPROVED, and ADOPTED this 23rd day of February, 2005.

Larry A. Delgado

LARRY A. DELGADO, MAYOR

ATTEST:

Yolanda Y. Vigil

YOLANDA Y. VIGIL, CITY CLERK

APPROVED AS TO FORM:

BRUCE THOMPSON, CITY ATTORNEY

Jp/cmassign/stormwater/illicitdischarge ord

Storm Water Management Plan

Attachment A2

City of Santa Fe

Terrain and Stormwater Management Ordinance

Article 14-8: DEVELOPMENT AND DESIGN STANDARDS

14-8.1 GENERAL PROVISIONS

(A) Purpose

The purposes of this article include:

(1) To provide proper standards that ensure a high quality appearance for the Santa Fe area and promote good design while also allowing individuality, creativity, and artistic expression;

(2) To encourage the proper use of the land by promoting an appropriate balance between the built environment and the preservation of open space and natural environmental resources;

(3) To protect private and public investment through preservation of open space, protection of natural resources including the existing tree canopy; providing buffers between incompatible uses and along roadways; and encouraging the planting of new vegetation as deemed appropriate;

(4) To preserve and protect the identity and character of Santa Fe, and to enhance the business economy; and

(5) To promote water conservation/efficiency through preserving natural areas, encouraging good soil management, and encouraging the use of native and/or drought tolerant plant materials.

(B) Applicability

Unless otherwise noted, the requirements of this article shall apply to all land development activity covered under this Chapter 14.

(Ord. No. 2002-38 § 2)

14-8.2 TERRAIN AND STORMWATER MANAGEMENT.

(A) Purpose

The purpose of these regulations is to protect, maintain and enhance the health, safety, and general welfare of the citizens and natural environment of the City. The following considerations shall be used during the design and planning process for all proposed developments subject to these regulations:

(1) Ensure sound and orderly development of the natural terrain;

(2) Protect life and property from the dangers of flooding and the hazard of improper cuts and fills;

(3) Minimize erosion and sedimentation;

(4) Minimize destruction of the natural landscape;

(5) Protect the scenic character of Santa Fe from the visual blight of indiscriminate cuts and fills and vegetation removal resulting from extensive grading, and utility scars;

(6) Treat stormwater runoff as a valuable natural resource in Santa Fe, a community that is prone to drought, by encouraging water collection and infiltration on site;

(7) Control the adverse impacts associated with accelerated stormwater runoff on natural drainage ways and all structures due to increased development and impervious surfaces;

(8) Minimize erosion and degradation of arroyo channels and improve the condition of the channel where possible;

(9) Respect, protect, maintain, and restore natural drainage ways, wetlands, bosques, floodplains, steep slopes, riparian vegetation, and wildlife habitat areas;

(10) Prevent stormwater runoff from damaging acequias or other irrigation facilities;

(11) Integrate stormwater management measures into the landscape and site planning process as set forth in § 14-8.4; and

(12) Provide aesthetically pleasing solutions to stormwater management and erosion control measures by integrating measures into the overall landscape and site design.

(B) Applicability

(1) Minimum standards and submittal requirements for terrain and stormwater management are based on the type of project, as follows:

(a) Grading permit applications, when required by § 14-3. 1 O(E), shall meet the minimum standards and submittal requirements in § 14-8.2(D);

(b) Building permit applications shall meet the minimum standards and submittal requirements in:

(i) § 14-8.2(E);

(ii) § 14-8.2(F);

(iii) If all terrain and stormwater management requirements have been met at the final development plan or subdivision plat stage, the approved final terrain and stormwater plans shall be submitted with the application for building permit and no further submittals shall be required;

(c) Master plan, preliminary development plan and preliminary subdivision plat applications shall meet the minimum standards and submittal requirements in § 14-8.2(G);

(d) Final development plan and subdivision plat applications shall meet the requirements in § 14-8.2(H); and

(e) All City departments which implement construction projects shall comply with the objectives, intent, and minimum standards of this section.

(2) Exemptions

New construction, remodeling, additions, or other alterations to existing structures are exempt from the requirements of this section provided that they meet the following conditions:

(a) Less than 1000 square feet of total land area is disturbed;

(b) No slopes greater than 10% are disturbed; and

(c) Existing drainage patterns on the property are not changed in a way that would increase the amount of stormwater runoff leaving the property.

(3) Variances.

Variances to these regulations shall be pursuant to § 14-3.7(F).

(4) Alternative Compliance.

Applicants may propose alternatives to standard stormwater management techniques, so long as these alternatives allow the project to meet the minimum standards and general requirements of this section. Alternative techniques may be proposed that achieve improved environmental performance, including reduced stormwater runoff, increased infiltration, reduced sedimentation and erosion, and for aesthetic purposes. Proposals for alternative compliance to standard stormwater management techniques shall be subject to review and approval of the City Engineer in writing, stating the basis for such a waiver.

(C) Procedures and General Requirements

(1) All proposed development shall meet the purpose listed in § 14-8.2(A).

(2) The City Engineer shall be authorized to determine the following:

(a) The completeness of all required terrain and stormwater management submittals;

(b) Compliance with all minimum standards;

(c) The acceptability of all proposed erosion control and stormwater management methods; and

(d) The need for additional information or written approval in order to determine compliance with the purposes, intent, and minimum standards of this section.

(3) The preparation of submittals shall be as follows:

(a) Building Permits for Minor Development.

Submittals may be prepared by any individual, including the homeowner, however, the City Engineer may require that submittals be prepared and signed by a New Mexico professional engineer, architect, or landscape architect if it is deemed necessary in order to fulfill the requirements of this section;

(b) Grading Permits

Submittals shall be prepared and certified by a New Mexico professional engineer or a landscape architect or architect registered in New Mexico; and

(c) Building Permits for All Other Development

(i) Topographic Plans.

Submittals shall be prepared and certified by a New Mexico professional engineer or a land surveyor licensed in New Mexico.

(ii) Stormwater Management

Submittals for master plans, subdivisions and development plans shall be prepared and certified by a New Mexico professional engineer. Submittals for all other building permits shall be prepared by a New Mexico professional engineer or an architect or landscape architect registered in New Mexico;

(iii) Site Restoration.

Submittals shall be prepared and certified by a landscape architect or architect registered in New Mexico or a New Mexico professional engineer.

(4) No certificate of occupancy or any type of final construction approval shall be issued by the City unless a parcel is in full compliance with the requirements of this section and all inspections have been conducted as described in § 14-8.2(I).

(5) Activities permitted by this section may also require notification or permitting by other agencies, including but not limited to written approval from the Acequia Madre de Santa Fe Community Acequia Association or other official watercourse related organization, the Federal Environmental Protection Agency, the United States Army Corps of Engineers, the Federal Emergency Management Agency (FEMA) and the New Mexico Environment Department. It is the responsibility of each applicant to determine whether additional notification or permitting is required.

(D) Grading Permits

(1) Minimum Standards

When a grading permit is required by § 14-8.2 Grading Permits Required, applications for the permit shall show compliance with the following minimum standards:

(a) Cut and Fill Slopes

(i) Cut slopes on a site shall not exceed ten feet in height. In no case shall the height of a cut exceed the height of the building;

(ii) Fill slopes on a site shall not exceed 15 feet in height. Retaining walls for fill slopes shall be no greater than ten feet in height. However, in the escarpment overlay district retaining walls shall be no greater than five feet in height, and in the case of cement, shall be a matching earth tone color. Unstabilized fill slopes shall be no steeper than 3:1, unless a structural alternative such as a retaining wall or some other measure acceptable to the City Engineer is provided;

(iii) Cut or fill slopes for roads shall not exceed 15 feet in height; and

(iv) All cut slopes that are not stabilized by a retaining wall or some other measure acceptable to the City Engineer, shall be no steeper than 2:1 (2 horizontal to 1 vertical), unless a structural

alternative is provided or unless it can be demonstrated by the geotechnical study that existing soils will naturally accommodate a steeper slope and acceptable revegetation, or other erosion control can be achieved;

(b) Grading

(i) Grading on building sites is limited to 15 feet beyond the outer edge of the building foundation, patio, wall, driveway, road, parking area, or other constructed facility except:

A. As necessary for the construction of stormwater runoff management measures in compliance with this section; or

B. As necessary to accommodate required horizontal to vertical measurements for cut and fill slopes.

(ii) Private driveways shall not exceed a grade of 15 percent nor shall the inside-turning radius of any private driveway be less than 15 feet.

(iii) Natural slopes greater than 30 percent shall remain undisturbed, except for isolated occurrences such as arroyo crossings and other sloped areas where the disturbance shall not exceed 1,000 square feet in total, as approved by a City Engineer. The City Engineer may waive this provision, in writing, stating the reasons and basis for such approval, if evidence is provided by the applicant showing that strict enforcement of this provision would prohibit access to the lot or placement of utilities. This provision shall apply solely to the construction of roads, driveways, and utility placement and is not intended to permit development on natural slopes exceeding 30 percent. The other provisions of the escarpment overlay district ordinance and the terrain and stormwater management regulations shall remain in effect;

(iv) Where the volume of earth to be moved on a site exceeds 1,000 cubic yards, a soil engineering report prepared by a New Mexico professional engineer shall be submitted and approved. A soil engineering report shall include the soil type, classification, permeability, erosion potential, and any other pertinent soil information requested by the City Engineer;

(v) Phasing for grading and clearing may be required by the City Engineer on all sites where construction will not begin immediately after clearing and grading;

(vi) No grading permit for driveway construction shall be issued unless the City Engineer has first determined that a buildable area as defined in § 14-8.2(F)(2)(b) exists on the lot. In the escarpment overlay district, a grading permit for driveway construction shall be issued only for access to the buildable area farthest from the view line; and

(vii) All grading completed on the site shall be in conformance to the approved grading plan.

(c) Site Restoration

All development subject to a grading permit shall be required to meet the requirements of § 14-8.2(F)(2)(d) as appropriate for the project;

(d) Best Management Practices

The following best management practices shall be used before and during the construction process:

(i) Disturbed areas shall be protected from erosion during construction by diverting stormwater around the disturbed area, energy dissipation of stormwater adequate to prevent erosion, retention of sediment on the disturbed area, and/or other means adequate to retain soil on site;

(ii) Except as necessary to install temporary erosion and sediment control devices, land shall not be graded or cleared of vegetation until all such temporary devices have been properly installed and inspected. Temporary erosion and sediment control devices may include silt fencing, swales, straw bales, berms, geotextiles sediment basins or traps, fencing. Control devices shall be kept in place and used until the disturbed area is permanently stabilized;

(iii) Significant trees, areas with substantial grass coverage, and drainage ways that are to remain undisturbed shall be fenced off prior to the use of any heavy machinery on-site and shall remain fenced during the entire construction process. Fencing material may include snow fencing, plastic mesh or other similar fencing material. To protect the root zone of significant trees, fencing shall be placed 5 feet to the outside of the dripline of significant trees;

(iv) To prevent soil from leaving a site, soil stockpiles shall be protected from wind and water erosion throughout the construction process by using appropriate erosion control techniques. Staging and soil stockpile areas shall be clearly

designated on the site. All topsoil shall be kept on site, within the disturbance zone of a construction site, and then reintroduced into planting areas to the extent possible. Stockpiled soil shall not be allowed to enter arroyos or other drainage ways;

(v) Techniques to prevent the blowing of dust or sediment from the site, such as watering down exposed areas, are required for projects which disturb greater than 5,000 square feet; and

(vi) Protection for storm drain inlets shall be provided, if needed, to prevent the entry of sediment from the site while still allowing the entry of stormwater.

(2) Submittals

Applications for grading permits shall include:

(a) A topographic survey and grading plan with elevation contours shown at not more than two foot intervals on slopes up to 30 percent and five foot intervals on slopes greater than 30% which shows:

(i) All areas with slopes 0 - 20 percent; 21 - 30 percent; and 31 percent and greater, differentiated through shading, tone, color, or line weight;

(ii) All areas to be graded on the site and the final contours to be achieved by the grading;

(iii) All finished floor or grade elevations;

(iv) Spot elevations, as needed;

(v) Areas of soils with severe limitations for the intended use;

(vi) The location of temporary erosion control structures and methods used, including staging and stockpile areas;

(vii) All significant trees and areas with substantial grass coverage to be removed;

(viii) A construction schedule when the project will be developed in phases;

(ix) The location of fencing around the areas to be protected;

(x) The ratio of horizontal to vertical measurement for cut and fill slopes;

(xi) The total volume, in cubic yards, of earth to be moved; all existing disturbed areas; and

(xii) FEMA flood hazard areas.

(b) For all roads or other excavations where the volume of earth to be moved exceeds 1,000 cubic yards, cross-sections or contour maps showing the height of cuts and fills at a maximum of 100 foot intervals and at any major breaks in the terrain may be required by the City Engineer.

(E) Building Permits for Minor Development

(1) Minor Development

A minor development includes the construction of any structure including but not limited to single family residences, additions, sheds, garages, driveways, or pavement that meets all of the following criteria:

(a) All development takes place on a single lot or a subdivision of less than three lots;

(b) Development disturbs less than 5,000-square feet of land per lot;

(c) Development disturbs no slope greater than 10 percent; and

(d) No more than 3,500-square feet of new impervious surface is created per lot.

(2) Minimum Standards

Minor development shall comply with the following minimum standards:

(a) The minimum volume of water to be contained or infiltrated on site shall be determined by multiplying the total area of new impervious surface, in square feet, by 0.16 feet to arrive at a value expressed in cubic feet. [i.e. 160 cubic feet of water containment is required per 1000 square feet of impervious surface.] Compliance may be achieved by:

(i) The use of active or passive water harvesting techniques such as cisterns, swales, berms, and check dams;

(ii) The construction of a detention or retention basin; or

(iii) A combination of (i) and (ii).

(b) All water containment structures, which have water open to the air, shall empty within 24 hours either through percolation into the soil or

through outlet structures designed to ensure a controlled release of water that will not cause flooding or erosion;

(c) To protect against erosion, all land disturbed during construction shall be revegetated with drought tolerant vegetation. Trees and shrubs shall be irrigated until established. The use of naturally degrading erosion control blankets or other erosion control materials is encouraged to ensure that grasses become established. Stones or treated landscape timber may be used to stabilize disturbed areas in lieu of revegetation.

(3) Submittals

Building permit applications for minor development shall include:

(a) A brief narrative description of the proposed project;

(b) A topographic map of the property to scale, including United States geological survey quadrangle maps or maps generated by the City of Santa Fe, adequate to show elevation contours, natural drainage ways, existing and proposed improvements;

(c) A brief verbal description and/or representative photographs of the type (such as, pinon and juniper trees, annual weeds, grass cover, bare ground, and so on) and approximate coverage of existing vegetation at the site, and a plan for vegetation removal at the site;

(d) A description of all proposed grading or ground disturbance;

(e) Calculations and a plan drawing showing:

(i) The size and location of all proposed runoff containment structures or methods and how water will be directed to the structures or methods; and

(ii) Percolation test results or other means of demonstrating that containment structures will empty within 24 hours.

(f) A roof run-off drainage plan; and

(g) A planting plan for revegetation showing proposed plant materials and a description of the proposed irrigation method or other methods used to establish vegetation and prevent erosion until vegetation becomes established.

(F) Building Permits For All Other Development

(1) All Other Development

All other development that requires a building permit and does not meet the requirements of § 14-8.2(E) shall meet the following minimum standards and submittal requirements:

(2) Minimum Standards

(a) All projects shall meet the minimum standards for grading in § 14-8.2(D).

(b) Topography

(i) Each lot shall have an area designated as suitable for building of not less than 2,000 square feet, which can be developed in accordance with the terrain and stormwater management standards and minimum performance standards;

(ii) One-half of the area designated as suitable for building and designated for the building footprint shall have a natural slope of 20 percent or less. The other one-half of the area may have a natural slope between 20 percent and 30 percent;

(iii) For a structure built on a natural slope over 20 percent, the finished floor elevation at any point shall not exceed five vertical feet above the natural grade at that point; and

(iv) No structure may be built on a natural slope of over 30 percent unless as specified in § 14-9.4 (A).

(c) Stormwater Management

(i) General Standards

A. Stormwater management measures shall be selected to best accommodate the specific geologic, hydrologic, and topographic features of the land to be developed;

B. Stormwater management measures shall be designed as both a comprehensive and integral part of the development;

C. Stormwater management measures shall be designed to directly address additional flows from the proposed development. Compliance with these standards shall not be achieved solely by alterations to flows upstream of a proposed development; and

D. Stormwater management plans may be designed to incorporate measures that are shared by two or more

developments provided that the measures comply with the minimum standard of this section.

(ii) Discharge Standards

A. Except as required for certain development in § 14-8.2(G)(1)(c), the stormwater runoff peak flow rate discharged from a site shall not exceed pre-development conditions for any frequency storm event up to the 100-year, 24-hour storm event at each discharge point. Calculation of the runoff peak flow rate may approximate the event from available data;

B. Runoff control measures may include, but are not limited to, the use of detention or retention basins and active and passive water harvesting techniques including swales, berms, cisterns, check dams, vegetative ground cover, and other techniques appropriate for retaining and infiltrating water on-site;

C. No stormwater shall be discharged into any watercourse or drainage channel without adequate reduction of flow velocity. This shall be accomplished by erosion control techniques that may include the routing or energy dissipation of stormwater runoff to a vegetated swale, vegetated basin, or stone-protected area. The techniques used shall be sufficient to diminish runoff velocity and spread runoff flow adequately to avoid erosion upon entering the watercourse;

D. No stormwater runoff shall be routed into irrigation ditches, canals, acequias or watercourses related to an acequia system unless specific plans have been approved in writing by the person or entity legally responsible for the operation and maintenance of the facility and the City Engineer. It shall be the responsibility of the developer to obtain all such approvals before submittal of any application;

E. No existing acequia, watercourse or other natural drainage system not related to an existing or historic acequia system, whether on-site or off-site, shall be disturbed by any on-site building development or construction activity unless the City Engineer approves the change to the watercourse or other natural drainage system; and

F. No active, historic acequia, whether on-site or off-site, shall be disturbed in any way by on-site building development or construction activity unless specific plans have been approved in writing by the person or entity legally responsible for the operation and maintenance of the acequias. It shall be the responsibility of the developer to obtain all such approvals before submittal of any application.

(iii) Basin Standards

A. Stormwater detention basins and overflow structures shall be sized and designed to adequately accommodate flows from 100-year, 24-hour storm events. However, such basins shall also be equipped with outflow structures that limit flow-through from lesser magnitude storms to runoff rates equal to or less than pre-development runoff rates. Calculations may be approximated from available data;

B. Infiltration, detention, and retention basins shall provide a means of controlling and removing sediment. Methods may include sedimentation settling ponds, sediment traps, filters on drop inlets, or other methods. All basins shall be designed to empty within no more than 24 hours;

C. French drains, infiltration basins or other similar structures used for the percolation of water into the soil, shall not be constructed so that their depth is greater than its widest horizontal dimension unless a notice of intent for the construction is filed with the New Mexico Environment Department; and

D. Landscape treatment of infiltration, retention, and detention basins is required and shall be in accordance with the § § 14-8.4(F) and 14-8.4(E).

(iv) Arroyo, Stream and Watercourse Standards

A. For arroyos, streams, or watercourses that carry 100 cubic feet per second or more of stormwater flow in a 100-year, 24-hour storm event, all structures, paved roads, driveways, and parking lots shall be set back a minimum of 25 feet from the top shoulder of an arroyo plus the depth of the arroyo channel. This setback provision does not apply to stormwater management structures or public access trails;

B. Except for erosion control measures, stormwater management measures, public access trails, or the placement of underground utilities required for development, no grading shall occur within the setback area;

C. Where practical, erosion control and channel stability in arroyos, streams, or watercourses shall be achieved using techniques that reduce stormwater velocity, preserve active floodplains, provide adequate room for floodwaters to spread safely, and utilize native vegetation. Arroyo and watercourse banks shall not be armored with concrete, gabion baskets, sheet piling, rip-rap, or similar hardened material unless no reasonable alternative exists to protect public infrastructure or pre-existing structures; and

D. Fences, walls, and similar structures may not be constructed in or across any arroyo, stream, or watercourse.

(d) Site Restoration

(i) Soil stabilization and erosion control measures for all land disturbed by construction shall be completed within 21 calendar days after completion of construction or other activities on site that would interfere with such soil stabilization measures. If the time of year is not conducive to planting, then planting may be delayed until the next appropriate planting season provided that all appropriate temporary erosion control measures are maintained until permanent erosion control measures are implemented;

(ii) One or more of the following stabilization and erosion control measures shall be used:

A. Revegetation with appropriate drought-tolerant plant materials, including grasses or other ground cover;

B. Restoration with bioengineering techniques such as live staking, brush layering, brush mattress, live crib walls; or

C. Stabilization with stones, terracing, or similar techniques.

(iii) All trees and shrubs shall be mulched and irrigated until established. It is recommended that grass seed either be 1)

hydroseeded; or 2) covered with biodegradable material or synthetic soil erosion control blankets or matting and irrigated until established. Irrigation shall be pursuant to the irrigation requirements in § 14-8.4(E).

(e) Increase in Minimum Standards

(i) The City Engineer may require implementation of more than the minimum stormwater standards if arroyos on site or immediately downstream of a site show evidence of increased flooding, channel erosion or sedimentation, as a direct result of conditions on the site. Increased requirements shall be limited to the following on-site measures:

A. Erosion control measures extended to a broader area of the site than the development area;

B. Revegetation of highly eroded areas;

C. Arroyo restoration or other erosion control measures within highly eroded channels; or

D. A combination of the above measures.

(3) Submittals

Submittals for building permit applications for all other development shall include:

(a) The submittals for grading listed in § 14-8.2(D).

(b) Topography plan which includes:

(i) All sloped areas of 0 - 20 percent, 21 - 30 percent, and greater than 30 percent shall be clearly marked and differentiated by shade, tone, or color at the same scale required for preliminary subdivision plat;

(ii) Ground elevations which conform to either the United States geological survey sea level datum, as modified, or to the City of Santa Fe's monument system, showing elevation contours at not more than two foot intervals on slopes up to 30 percent and not more than five foot intervals on slopes greater than 30 percent;

(iii) The designated building lot area(s); and

(iv) Date, method of survey, and certification from a New Mexico professional engineer or professional land surveyor that the plan is in compliance with national map accuracy standards.

(c) Stormwater management plan which includes:

(i) A vicinity map;

(ii) Existing and proposed contours, all watercourses, arroyos, drainage ways, impoundments, and wetlands on or adjacent to the site or into which stormwater from the site flows;

(iii) Location of all existing and proposed improvements including buildings, structures, impervious surface, stormwater management measures, roads, and utilities;

(iv) Location of all easements and rights-of-way;

(v) The delineation, if applicable, of the 100-year floodplain, including the flood fringe and floodway, if available, and any on-site or adjacent wetlands;

(vi) Description of all soils, including general soil characteristics and areas of solid rock;

(vii) Percolation test results for all areas with retention ponds or other facilities designed for infiltration and a description of techniques to be used to prevent the clogging of soil pores by fine sediment;

(viii) A description of the approximate area of the watershed above the site, including the vegetative coverage and impervious surfaces;

(ix) The total peak flow rate of stormwater that would be discharged from the site for pre-development and post development runoff conditions in the two, ten, 50, and 100-year, 24-hour storm event and type of calculation method used;

(x) Sizing, volume, and peak flow rate calculations in cubic feet per second for stormwater management facilities;

(xi) Structural and construction details for all components of the proposed drainage system;

(xii) Data for total site area, disturbed area, new impervious area, and total impervious area; and

(xiii) A plant schedule of materials to be used as landscape treatment for stormwater management measures;

(d) Site restoration plan which includes the location of all permanent erosion control methods, including location, type and amount of plant and seed material to be used, proposed irrigation, any soil stabilization needed prior to plant establishment, time schedule for installation, and maintenance schedule for one year beyond the planting date.

(G) Master Plans, Preliminary Development Plans and Preliminary Subdivision Plats

(1) Minimum standards

(a) Projects shall meet the minimum standards of §§ 14-8.2(D) and 14-8.2(F);

(b) All land below the base flood elevation for a 100-year, 24-hour storm event shall be dedicated as public open space, drainage easement and public right of way depending on the nature of the development and the hydrology of the area to prevent infringement to the hydrologic floodplain. Under no circumstances shall pedestrian or other public easements or open space dedications be precluded for purely non-hydrologic reasons; and

(c) For all development where one-half or more of the land within the subdivision exceeds 20 percent slope, the quantity and peak flow rate of post-development stormwater runoff on all developed or disturbed land shall not exceed 75 percent of the quantity and peak flow rate of the pre-development runoff.

(2) Submittals. Submittals for master plans, preliminary development plans and subdivision plats shall include:

(a) A conceptual plan and report that shows the general approach proposed for terrain and stormwater management, and how the proposed development will meet all of the minimum standards described in §§ 14-8.2(D) and 14-8.2(F);

(b) A topography plan as outlined in § 14-8.2(F)(3); and

(c) A brief description of the watershed directly upstream and downstream of the parcel, including the size, terrain, type and extent of vegetation cover, and degree of development for all areas draining to the project site; and

(d) A water availability and conservation plan shall be submitted for all new subdivisions of 15 or more dwelling units which are sited, in whole or in part, on natural sloped areas greater than 20 percent.

(H) Final Development Plans and Subdivision Plats

(1) Minimum standards. Final development plans and subdivision plats shall meet the minimum standards described in §§ 14-8.2(D), 14-8.2(F), and 14-8.2(G).

(2) Submittals. Submittals for final development plans and subdivision plats shall include:

(a) All submittals required in § § 14-8.2(D) and 14-8.2(F);

(b) A long-term maintenance schedule for the life of the stormwater management measures including the time frame for completion and the responsible party who shall perform the maintenance; and

(c) An as-built certification signature block to be executed by a New Mexico professional engineer after the project completion to ensure that the constructed stormwater management systems comply with the approved stormwater plans.

(I) Inspections and Violations During Construction Process

(1) Inspections

(a) For all non-residential projects and all residential projects that do not qualify as minor development, an applicant shall notify the City to set up a City inspection at the following times:

(i) When the temporary best management practices are completed;

(ii) When final stormwater management measures are completed; and

(iii) When the final site restoration measures are completed, however, if final site restoration measures are being delayed due to the season, the applicant shall notify the City when temporary erosion control measures, for use until site restoration is complete, in place and ready for inspection; and

(iv) Further construction or issuance of any permits shall not occur until written approval has been granted by the inspector after each inspection that the best management practices and stormwater management control methods have been completed in accordance with approved plans;

(b) The City Engineer or code enforcement officer may enter upon any property subject to this section at reasonable times to conduct inspections of grading, erosion and stormwater management measures to determine compliance with City policies and procedures and to carry out duties in the enforcement of this section; and

(c) The applicant shall perform regular inspections of all grading, erosion control, and stormwater management measures. All inspections shall be documented in written form and shall be made available to the City Engineer or code enforcement officer upon request.

(2) Violations

Any violation of this section shall be subject to the provisions of §§ 14-11.5(A) and 14-11.5(B).

(J) Dedications, Easements and Right-of-Ways

(1) All land below the base flood elevation for a 100-year, 24-hour storm event shall be dedicated to the City as public open space, drainage easement and public right-of-way depending on the nature of the development and the hydrology of the area. Under no circumstances shall pedestrian or other public easements or open space be precluded for purely non-hydrologic reasons.

(2) Irrevocable dedications to the City may be required by the City Engineer for the components of the stormwater drainage system including access for maintenance. The types of all easements and open space dedications shall be determined by the City Engineer. If a dedication is required, it shall be designated on the plan or plat and in effect prior to building permit approval.

(3) An applicant may make requests for dedications of a stormwater drainage system to the City, however, the City is not obligated to accept a dedication offer. Only the Planning Commission or the Governing Body, whichever is the appropriate body hearing the matter, may accept dedications to the City. If a dedication is offered to and accepted by the City, it shall be designated on the plan or plat and in effect prior to building permit approval.

(K) Long Term Maintenance Responsibilities and Inspections

(1) Responsibilities

All stormwater management measures and facilities shall be maintained by the fee simple owner of the property or a homeowners association, unless a dedication of the stormwater management system has been required or accepted by the City, in which case, the City shall be responsible for maintenance. For developments of 15 or more dwelling units, developers shall provide liability and property damage insurance, in a form approved in

writing by the City Attorney, in order to protect adjacent property owners from failure of drainage or erosion control structures which were required for the development. For new developments of fifteen or more dwelling units, performance bonds or their equivalent shall be posted by the developer for 10 years and thereafter, shall be renewed by the neighborhood or responsible association for maintaining all common drainage structures. Failure to renew the bond in a timely manner on an annual basis shall be grounds for the City Attorney's office to call the bond. The bond must be in an amount sufficient to defray maintenance costs for 10 years. The stormwater management system shall be maintained in good condition and promptly repaired. Maintenance shall include the repair and restoration of all grade surfaces, walls, swales, drains, dams, ponds, basins, site restoration measures, associated vegetation, and any other stormwater measure constructed on site. Such maintenance shall be in accordance with approved stormwater management plans.

(2) City Inspections

The City or its authorized agent may enter upon a property, which is subject to this section, at reasonable times to access the stormwater management system to ensure that the system is maintained in proper working condition to meet the approved stormwater management plans and the objectives and minimum standards of this section.

(3) Maintenance Violations

If after notice by the City to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) or responsible party within a reasonable period of time, the City may perform all necessary work to place the facility in proper working condition. The owner(s) or responsible party of the facility shall be assessed the associated costs of the work.
(Ord. No. 2001-38 § 2; Ord. No. 2002-20 § 1)

14-8.3 FLOOD REGULATIONS

(A) Flowline and Flood Hazard Area; Delineation and Establishment

The City adopts and establishes the flood hazard areas and flowlines delineated in the following:

(1) The flood hazard boundary map or flood insurance rate map promulgated by the department of housing and urban development, federal insurance administration; and

(2) Other flood hazard areas or elevations as identified in:

(a) Corps of Engineers, U.S. Army, floodplain information, Santa Fe River and Arroyo Mascaras, January 1973, Santa Fe River, May 16, 1968, Arroyo de los Chamisos and Arroyo Hondo, December, 1967;

(b) Subsequent drainage studies prepared for and accepted by the City; and

(c) Other known flood hazard areas identified by the City Engineer.

(B) Engineering Criteria

(1) The analysis and determination of flowline, flood hazard area, floodway and flood fringe shall adhere to professional hydrologic and hydraulic engineering techniques. In this regard, engineering practice manuals of the American Society of Civil Engineers and similar competent manuals of professional hydrologic and hydraulic engineering techniques will be used. In all cases, the flowline or the boundary of the flood hazard area or flood fringe, or the floodway shall be delineated by a given area's topographic land features and its physical characteristics. Professional hydrologic and hydraulic techniques, supplemented with data obtained by field examination and surveys as necessary, will initially be used to delineate flood hazard areas and flowlines on topographic maps.

(2) The following objectives shall be evaluated by the City Engineer wherever a floodway is defined through hydrological methods. The City Engineer may, as becomes necessary, draft more detailed rules and regulations, pursuant to §14-3.9(B)(2):

(a) A floodway shall be designed to minimize erosion. Preferably a floodway shall be designed with a pervious bottom to allow infiltration to the subsurface;

(b) Initial construction costs and estimated maintenance and repair costs evaluated over the project life shall be considered;

(c) City plans, ordinances and policies adopted by the Governing Body shall be considered;

(d) The effect of storm runoff shall be analyzed by hydrologic methods to ensure that any change in the flood hazard area will not unreasonably or adversely affect the flood hazard area or cause its capacity to be exceeded;

(e) Standing wave action and superelevation at horizontal curve shall be determined and adequate freeboard heights established; and

(f) Channel slope and alignment shall be established by analysis of engineering data and hydraulic calculations.

(C) Use Regulations
(Ord. No. 2002-22 § 1)

(1) The requirements of this section are in addition to and not in lieu of other provisions of this chapter.

(2) No new construction or substantial improvements shall be undertaken on lands within a flood hazard area unless such erection or alteration shall be in compliance with the provisions of this section.

(3) No uses shall be permitted within the floodway, except those set out in this paragraph, as follows:

(a) Cultivating and harvesting of crops according to recognized soil conservation practices;

(b) Pasture, grazing land and outdoor plant nursery;

(c) Wildlife sanctuary, woodland preserve, arboretum;

(d) Outlet installations for sewage treatment plants, sealed public water supply wells;

(e) Passive recreational uses such as parks or picnic areas;

(f) Open area residential uses, such as lawns, gardens and play areas; provided that paved areas, walls or fences are not erected within the floodway; and

(g) Stormwater management and arroyo or watercourse stabilization structures, such as check dams and gabions, if these structures are in compliance with all applicable state and federal regulations.

(4) The provisions applying to any flood hazard area or "AO" Zone of the FIRM are that:

(a) All permits for construction within a flood hazard area shall be reviewed by the City Engineer;

(b) No uses shall be permitted within the floodway except those specifically provided for in paragraph (3) above;

(c) Storage, processing or disposal of materials that in time of flooding are buoyant, flammable, explosive, toxic or could be injurious to human, animal or plant life, are prohibited with the floodplain;

(d) Railroads, streets, bridges, private and public utility lines and facilities, structural works for the control and handling of floodflows, such as dams, embankments, floodwalls, velocity control structures or required

storm drainage control and handling works, may be allowed within the floodplain if properly floodproofed and approved by the City Engineer;

(e) All newly created lots shall contain a buildable area that is entirely outside of a special flood hazard area;

(f) Except as permitted in paragraph (5)(d) of this section, if an existing lot contains land both within and outside of a flood fringe area, any new construction, including roads and driveways, shall only occur on the portion outside of the flood fringe area. Applicants who propose construction within the flood fringe on an existing lot with no other buildable area, shall obtain a variance and shall conform to the provisions set forth in paragraph (5), subparagraphs, (a) through (i) of the section;

(g) On any application for land subdivision, where the tract of land or portions thereof are located within a flood hazard area, the City Engineer or Planning Commission shall require the submittal of detailed hydrologic data indicating the water surface elevations for a one-hundred-year flood, to be shown for sections of the drainage channel at intervals of no greater than 100 feet. Upon on-site investigation, the City Engineer may waive the requirement for the submittal of detailed hydrologic data. The flood hazard area shall be further defined as floodway and flood fringe;

(h) All excavation and fill operations within the drainageways of flood hazard areas shall receive approval from the City Engineer prior to beginning any work;

(i) In drainage ways where there is evidence of undercutting and bank erosion, the City Engineer may require an additional set back. The additional setback distance shall be determined by the City Engineer based on soils and hydrologic information supplied by the applicant;

(j) For purposes of this section, the flood hazard zone shall be as shown on the appropriate FIRM flood hazard map, unless an applicant can demonstrate that the site under discussion is located where the FIRM map does not show base flood elevations and the parcel, lot, or buildable area under discussion would be situated above the base flood elevation; and

(k) No fence, wall, or similar structure shall be erected in or across any arroyo, stream, or watercourse.

(5) Special provisions applying to the flood fringe portion of the flood hazard area permit structures or uses within the flood fringe portion of the flood hazard area upon the approval of the City Engineer, to the extent that they are not

prohibited by any other city ordinances, plans and policies, and meet the following requirements:

(a) Residential or nonresidential structures, to be constructed or substantially improved in the flood fringe, shall have the lowest elevation of the finished floor grade not less than one foot above the level of the one-hundred-year flood. Where existing streets or utilities are at elevations which make compliance with this provision impractical, or in other special circumstances, the City Engineer may authorize other techniques for protection of the structures. Accessory land uses such as parking lots, may be located at an elevation below the level of the one-hundred-year flood;

(b) Foundations of all structures shall be designed and constructed to withstand flood conditions at the proposed construction site;

(c) New construction and substantial improvements, with fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a New Mexico registered professional engineer or architect or meet or exceed the following minimum criteria:

(i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

(ii) The bottom of all openings shall be no higher than one foot above grade; and

(iii) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(d) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

(e) Sanitary and storm sewer drains shall be equipped with valves capable of being closed, manually or automatically, to prevent backup of sewage and storm waters into the building or structure;

(f) The elevation attained by the one-hundred-year flood shall be superimposed on the elevation drawings submitted to Planning and Land Use Department for issuance of a building permit for all sides of

the building. The elevation drawings shall also indicate the finished floor grade and location of all windows, doors or other openings;

(g) Before issuance of a building permit for the construction of a structure in the flood fringe, a professional engineer licensed in the state shall certify that the structure has been designed to conform with the provisions of paragraph (4), items (i) through (v) of this section, and that all openings in the structure are no less than one foot above the elevation of the one-hundred-year flood. The same professional engineer that certifies that the structure is designed to conform with the provisions of paragraph (4), items (i) through (v) of this section shall also certify, upon completion of the structure, that construction complies with the submitted plans;

(h) The manufactured home shall be elevated on compacted fill or pilings. The lowest floor of the manufactured home shall be no less than one foot above the level of the one-hundred-year flood;

(i) Manufactured homes shall be anchored to resist flotation, collapse or lateral movement by providing:

(i) Over-the-top ties at each of the four corners, with two additional ties per side at intermediate locations and for manufactured homes less than 50 feet long, one over the-top tie at each of the four corners is required;

(ii) Frame ties at each corner of the manufactured home with five additional ties per side at intermediate points and for manufactured homes less than 50 feet long, four ties are required per side;

(iii) All components of the anchor system shall be capable of carrying a force of 4,800 pounds; and

(iv) Additions to the manufactured home shall be similarly anchored.

(10) For manufactured home parks located in the flood hazard area, a vehicular circulation plan indicating alternative vehicular access and escape routes during the one-hundred-year flood shall be submitted.

(D) Amendment to Flood Hazard Boundary Map or Flood Insurance Rate Map

(1) Amendments to the established system of flowlines and flood hazard areas are initiated either by the City Engineer or by any other person through application to the City Engineer. Such application shall be accompanied by sufficient copies of supporting plans and reports as may be required by the

City Engineer. Submission of inaccurate information with an application is grounds for denial.

(2) The federal insurance administration shall be notified of any amendments to the FIRM prior to the adoption of an amendment to the FIRM. The City Engineer must secure approval of such amendment from the flood insurance administration and the state coordinator for the federal flood insurance program, the state engineer.

(3) On the basis of plans and policies adopted by ordinances and resolutions by the Governing Body of the City and submittal of hydrologic data, the City Engineer is authorized to approve or deny a change of the established system of flowlines and flood hazard areas. Where the change affects land owned by persons other than the applicant, all affected property owners will be notified of the alterations in the flood hazard area by certified mail, return receipt requested. The signed receipts shall be submitted to the City Engineer.

(4) The City Engineer's decision to amend a flood hazard area shall be based on any appropriate information, including changes in flowlines and flood hazard area recommended by reports and plans done by or for the City or other governing agencies, including those prepared for building permits and subdivisions.

(5) If the City Engineer denies a change in the system of flowlines and flood hazard area, the reasons for denial shall be stated in a written report.

(6) If major alterations to a watercourse are proposed adjacent to the corporate limits of the City of Santa Fe, the City Engineer shall notify the Santa Fe county manager of such proposal.

(E) Warning and Disclaimer of Liability

The degree of flood protection intended to be provided by this section is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on occasions or the flood height may be increased by natural or man-made causes. This section does not imply that areas outside the flood hazard area or land uses permitted within such area will always be totally free from flooding or flood damages. This section shall not create liability on the part of the Governing Body or any official, employee or agent thereof for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

(Ord. No. 2001-38 § 2)

Storm Water Management Plan

Attachment A3

SWMP Public Notification Postings

Utility Billing
PO Box 5439
Santa Fe, NM 87502-5439
(505) 955-4333 Customer Service
(505) 955-4360 Fax

City of Santa Fe

*****AUTO**5-DIGIT 87507
[redacted] 9 8472

Account Number	00236144
Bill Date	02/21/2007
Due Date	03/13/2007
Previous Balance	[redacted]
Payments Received	[redacted]
Balance	[redacted]
Adjustments	
Current Bill Amount	[redacted]
Total Amount Due	[redacted]

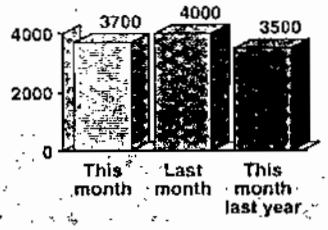
Solid Waste (505) 955-2200
Waste Water (505) 955-4650
Water Violations (505) 955-4222

Pay online @ http://ecom.utilities.ci.santa-fe.nm.us/
Your ePay number is: 00192123

Please make checks payable to City of Santa Fe

Service Address Number	Service Address	Account Number
23597	1410 PASEO NORTENO	00236144

Refuse		
01/22/07 - 02/21/07	Resident SW Curbside Pickup	$12.78
	Refuse Total Including Tax	**$12.78**
Sewer		
	Sewer Res Service Charge	$4.54
01/22/07 - 02/21/07	Sewer Res Variable Rate	$11.03
	Sewer Total Including Tax	**$15.57**
Water - Residential		
	Consumption Base Rate	$15.89
	Water Quality Fee	$.12
	5/8" Service Chg	$13.04
	Stormwater Service Charge	$1.00
	Water Total Including Tax	**$30.05**



Meter Number	Read Type	Read Date	Billed Days	Current Read	Prior Read	Gallons Used
34908	Actual	02/09/07	30	9557	9520	3700

Total Current Charges $58.40

The City of Santa Fe seeks public comment on the Storm Management Plan to be submitted to the EPA for the coverage under the State of NM MS4 Permit # NMR040000. Review at:www.ci.santa-fe.nm.us or 1142 Siler Rd. Comments due before 4/5/2007.

City of Santa Fe

The City of Santa Fe's Public Works Storm Water Management Office is currently seeking public comment on the Storm Water Management Plan Draft (SWMP) to be submitted to the Environmental Protection Agency (EPA) for coverage under the State of New Mexico's MS4 (Municipal Separate Storm Sewer System) Permit # NMR040000. Comments are due in writing on or before March 30, 2007 to the City of Santa Fe, c/o Jim Salazar, P.O. Box 909, Santa Fe, NM 87504-0909. The SWMP can be reviewed on the web: www.ci.santa-fe.nm.us or at the Storm Water Management office located at 1142 Siler Road, staff can be reached at 955-2132 or 955-2133. (Please note additional documents required for submittal of the NOI are under consultation at this time.)

Storm Water Management Plan

Attachment A3

SWMP Public Comment

NEW MEXICO HOME BUILDERS ASSOCIATION

5931 Office Blvd. NE - Suite #1
Albuquerque, NM 87109
Phone: 505.344.7072
Toll Free: 1.800.523.8421
Fax: 505.344.3103
www.nmhba.com

2007 Officers

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Marc White
Past President
Skip Mead
First VP/President Elect
Randy Crowder
Associate Vice President
Betty Shaum
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Affiliated Organizations
Association Services Corp.
dba New Mexico License Bonding
Builders Trust of New Mexico

Affiliated Local Associations
BA of Central New Mexico
HBA of Eastern New Mexico
HBA of Las Cruces
HBA of Lincoln County
BCA of Otero County
San Juan County HBA
Santa Fe Area HBA
South Eastern New Mexico HBA
Southwest HBA

Affiliated National Association
National Association of Home Builders

August 23, 2007

Peggy Doolittle
City of Santa Fe
P.O. Box 909
200 Lincoln Avenue
Santa Fe, NM 87504-0907

Re: MS4 Permit from EPA Region 6

Dear Ms. Doolittle:

Over the past couple of years New Mexico Home Builders Association (NMHBA) has been following the Municipal Separate Storm Sewer System (MS4) permit process as Region 6 of the Environmental Protection Agency (EPA) begins to regulate New Mexico municipalities. As the largest regulated industry, NMHBA staff has attended the Region 6 MS4 Conference, MS4 workshop, and MS4/EPA monthly teleconferences in order to keep tabs on what new regulations would be placed on the construction industry.

NMHBA has also been working with a coalition of business groups that includes the mining, commercial construction, office building owners, dairy, and highway construction industries to study and take action on the National Pollution Discharge Elimination System (NPDES) program as issues arise in New Mexico. An issue of importance to your municipality as it enacts its storm water ordinance and drafts its Notice of Intent (NOI) documents to submit to Region 6 MS4 permit has come to the attention of our coalition. The issue is that if a municipality adopts an ordinance containing a definition of "waters of the United States" or "surface waters" that exceeds the federally-required definition, the municipality may expose itself to more opportunities for fines from the EPA

The MS4 permit requires that municipalities regulate construction activities as well as post-construction storm water runoff. If the municipality fails to follow through on its goals (as stated in the NOI) it could be held responsible by the EPA. This frequently means monetary fines. A few municipalities in New Mexico have already been hit with huge fines from the EPA for violations of the permits for discharges from their wastewater treatment plants. It is something the coalition would like to see avoided in the MS4 storm water permit process.

Various municipalities are incorporating a variety of definitions of "surface waters" in their ordinances and NOIs. Many of these definitions have come from sample ordinances found on the EPA website, or various locations where the states have acquired primacy for the NPDES program, and the definitions are designed to comply with individual state programs. Beside the confusion of inconsistency for industries regulated, some of the definitions the coalition has come across are not advisable from either a risk-management or resource management viewpoint. The broader the definition, the broader your area for responsibility, and ultimately, the broader your municipality's exposure to EPA scrutiny. Keeping the definition of "surface waters" to "as defined in 40 CFR122.2 of the Clean Water Act" is the minimum required to comply with the Clean Water Act, and is what the business coalition's legal advisors suggest.

Please consider the concerns of the coalition, and discuss this issue with your City Attorney or Risk Management Director. Representatives of the coalition will be attending the Municipal League Conference in Las Cruces August 28-31, and will be available to discuss this issue in greater detail between sessions. NMHBA will also be hosting a reception on Wednesday, August 29th on the 6th floor of the Hilton Hotel from 4:00 p.m. to 6:00 p.m. for those of you who are involved in the MS4 process.

Sincerely,

Jack C. Milarch, Jr.
Executive Vice President & CEO

cc: New Mexico Mining Association
Dairy Producers of New Mexico
National Utility Contractors Association
Dairy Farmers of America
Association of Building Contractors
National Association of Industrial & Office Property
Associated Contractors of New Mexico
New Mexico Roofing Contractors Association
Associated General Contractors

From: JOHNSTON, JANINE V
Sent: Tuesday, February 27, 2007 4:14 PM
To: Paige Grant
Cc: SALAZAR, JIM L.; DOOLITTLE, PEGGY J.
Subject: RE: comments on SWMP

-----Original Message-----
From: Paige Grant [mailto:paigeanna@comcast.net]
Sent: Tuesday, February 27, 2007 11:01 AM
To: JOHNSTON, JANINE V
Subject: comments on SWMP

Hi, Janine: am I right that we are to get our comments on the Storm Water Management Plan to you? If not, please forward to the appropriate person. In general, it seems on target. I sigh to think that nothing will be done on the foul dry-weather flows into the river that we've known about for a decade until they are mapped etc etc.... but maybe that's what it takes!

I would suggest an addition to street-sweeping plans, based on our recent experience: something to the effect that if heavy snowfall has required heavy application of scoria, that street-sweeping efforts be intensified,

It would be great if the SWMP would include plans for restoration of arroyos to reduce erosion and channel incision as well as delivery of excessive amounts of sediment into the Santa Fe River. Also, take credit for river restoration work being done under other programs and make it a SWMP objective to reduce flow velocities in the river for the same purposes stated for the arroyo restoration.

Shifting gears: do you see this plan as being relevant to a literature survey on past and current planning relevant to trails/river restoration in the reach from Cam. Alire to Frenchy's?

Best,
Paige

INTRODUCTION

The City of Santa Fe is the operator of a small Municipal Separate Storm Sewer System (MS4). This report describes the City of Santa Fe's stormwater system and its relationship and effects on listed species or critical habitat that may be present in recognition of the Endangered Species Act.

In compliance with the National Pollutant Discharge Elimination Systems (NPDES), this report is part of a larger Notice of Intent (NOI) submitted to the United States Environmental Protection Agency (EPA) Region 6, by the City of Santa Fe, New Mexico. The purpose of the NOI is to gain coverage under General Permit Number NMR040000, effective January 1, 2007. Coverage under this permit provides authorization to discharge pollutants to waters of the United States.

In order to be eligible for coverage under this permit, the City of Santa Fe must be incompliance with the Endangered Species Act (ESA). According to the General Permit NMR040000, Section 1.5 the MS4 operator's storm water discharges, allowable non-storm water discharges, and discharge-related activities:

- will not jeopardize the continued existence of any species that are listed as endangered or threatened ("listed") under the ESA or result in the adverse modification or destruction of habitat that is designated as critical under the ESA ("critical habitat")
- will not cause of prohibited "take" of endangered or threatened species, unless such takes are authorized under sections 7 or 10 of the Endangered Species Act.

Section 1.5.3.1 Criterion A: No endangered or threatened species or critical habitat occur in proximity to the MS4 or the points where authorized discharges reach water of the United States; or

Section 1.5.3.2 Criterion B: A formal or informal consultation with the Fish and Wildlife Service (FWS) under Section 7 of the ESA has been concluded and that consultation:

- Addressed the effects of the storm water discharges, allowable non-storm water discharges, and discharges-related activities on listed species and critical habitat; and
- The consultation resulted in either a no jeopardy opinion or a written concurrence by the FWS on a finding that the storm water discharges, allowable non-storm water discharges, and discharge-related actives are not likely to adversely affect listed species or critical habitat; and
- The MS4 operator agrees to comply with any measures or controls upon which FWS concurrence was based and incorporates those measures or controls into the SWMP.

Section 1.5.3.3 Criterion C: The activities of the MS4 are authorized under Section 10 of the ESA and that authorization addresses the effects of the storm water discharges, allowable non-storm water discharges, and discharge-related activities on listed species and critical habitat; or

Section 1.5.3.4 Criterion D: The storm water discharges, allowable non-storm water discharges, and discharge-related activities were already addressed in another operator's certification of eligibility under Part 1.5.3.1 through 1.5.3.3 which includes the MS4 activities. By certifying eligibility under this Part, the MS4 operator agrees to comply with any measures or controls upon which the other operator's certification was based.

This report will demonstrate that each of the listed species for the county of New Mexico that may be present in the City of Santa Fe MS4 limits was closely studied and that compliance with all provisions of the Endangered Species Act has been and will continue to be evaluated on an ongoing basis.

Biological Assessment for the City of Santa Fe's Storm Water Permit

Application by the City of Santa Fe for a Storm Water Permit
State of New Mexico Permit #NMR040000
City of Santa Fe

LOCATION:

Santa Fe, New Mexico
Santa Fe County, New Mexico
T17N, R09E, and 24
USGS Santa Fe Quadrangle

Contact Person: Jim L. Salazar Phone Number: 505-955-2132

Introduction

The purpose of this biological assessment is to review the proposed City of Santa Fe Storm Water Permit Application in sufficient detail to determine to what extent the proposed action may affect any of the threatened, endangered, proposed, or sensitive species listed below. This biological assessment is prepared in accordance with legal requirements set forth under Section 7 of the endangered Species Act (16 U.S. C. 1536 ©), and follows the standards established in New Mexico Department of Game and Fish guidance.

The species listed in Santa Fe county are:

Threatened, Endangered, Proposed Threatened or Proposed Endangered Species

Bald eagle (Haliaeetus leucocephalus)	**AD, T**
Black-footed ferret (Mustela nigripes)	**E, EXPN**
Mexican spotted owl (Strix occidentalis lucida)	**T**
Rio Grande silvery minnow (Hybognathus amarus)	**E**
Southwestern willow flycatcher (Empidonax traillii extimus)	**E**
Yellow-billed cuckoo (Coccyzus americanus)	**C**

Candidate Species, Sensitive species and Species of Concern

American peregrine falcon (Falco peregrinus anatum)
Arctic peregrine falcon (Falco peregrinus tundrius)
Baird's sparrow (Ammodramus bairdii)
Mountain plover (Charadrius montanus)
Northern goshawk (Accipiter gentillis)

Western burrowing owl (Athene cunicularia hypugaea)
Rio Grande sucker (Catostomus plebeius)
New Mexican meadow jumping mouse (Zapus hudsonius luteus)
Townsend's big-eared bat (Corynorhinus townsendii)
Santa Fe cholla (opuntia viridiflora)

Consultation to Date

Early consultation held: March 2007 U.S. Fish & Wildlife Service

Current Management Direction

Potential impacts that municipal activities, residential/public actions, construction projects/developments may have on federal endangered or threatened species of concern or critical habitats are evaluated on an ongoing basis in accordance with the National Environmental Policy Act (NEPA), New Mexico Department of Game and Fish (NMDGF) and the New Mexico Environmental Department (NMED), and the City of Santa Fe Storm Water Management Plan (SWMP). The storm water management staff will interact directly with residents, restaurants and businesses via public forums; community events; media campaigns; trainings and by use of ordinances to inform about environmental stewardship associated with storm water's NPDES.

Description of the Proposed Action

Application for permit coverage under the Clean Water Act NPDES Phase II general permit for storm water discharges (MSGP part 1.2.2), allowable non-storm water discharges (MSGP part 1.2.3), and storm water discharge-related activities, as defined in Appendix A of the MSGP; to include capture and conveyance of storm water in the separate storm sewer system via municipal streets, catch basins, curbs, gutters, arroyos, channels, or storm drains (Santa Fe urbanized area) that may or may not directly connect to the Santa Fe River. Application for permit is due on or before October 1, 2007 and will be in place for 5 years. The City of Santa Fe's Storm Water Management Division will be the coordinating department for the permit to address any revisions and/or renewals as needed and all inquires can be addressed to: City of Santa Fe, Storm Water Management Division Director, P.O. Box 909, Santa Fe, NM 87504-0909. There is no critical habitat found directly in the action area. The City of Santa Fe has designed and implemented a public awareness and education program to encourage the on-going practice of the reduction of storm water pollution.

Action Area

Santa Fe (urbanized area) city limits in its entirety with the termination of permit for discharge flows at the Waste Water Treatment Plant as the PWOT having obtained a permit for discharge and flows beyond that point. (Industrial Activity permit # NM0022292 expires 8-31-2011)

Species Accounts and Status of the species in the Action Area

None; no listed species are in the action area

Effects

"No effect"

None of the listed endangered or threatened species or critical habitat are in the proximity of Activity.

Conclusion and Determination

Through the urban reach, the Santa Fe River is typically a dry, dewatered channel except during snowmelt and storm event runoff, thus discouraging wildlife habitat and migration; also none of the listed species are know to utilize MS4 for any extended period of time and there are no documented critical habitat areas within the MS4 boundaries. Additionally, no wetlands are mapped in the area. Based on the information provided above and considering the City of Santa Fe's current and ongoing SWMP activities, the City of Santa Fe meets the Endangered Species Act (ESA) Eligibility Provisions of the MS4 permit under Criterion A: no endangered or threatened species or critical habitat occur in the proximity to the MS4 or points where authorized discharges reach waters of the United States.

References:

NMDGF (New Mexico Department of Game and Fish)

2006 *Threatened and Endangered Species of New Mexico.* Santa Fe, New Mexico.

Blue Earth Ecological Consultants

2007 *Santa Fe River Study Report on Existing Environmental Conditions and Potential Natural Resources Restoration Projects,* Santa Fe, New Mexico.

Batie Environmental Services, LLC

2004 *Biological Report Improvements to Camino de los Montoyas,* City of Santa Fe. Santa Fe, New Mexico.

2006 *Biological Reconnaissance Memorandum Improvements to Old Pecos Trail,* City of Santa Fe. Santa Fe, New Mexico

2006 *Biological Survey Report for Rodeo Road Safety Improvement Project Camino Carlos Rey to Galisteo Road,* City of Santa Fe. Santa Fe, New Mexico.

2004 404 Permit Application and Pre-Construction Notification for the proposed Osage Avenue Bridge Replacement letter, City of Santa Fe Santa Fe, New Mexico

Environmental Consulting, LLC

2007 *Biological Reconnaissance Memorandum Richards Avenue Fire Station No. 7 Crossing,* City of Santa Fe. Santa Fe, New Mexico

Southwest Environmental Resources, LLC

2003 Categorical Exclusion City of Santa Fe Park-And-Ride Lot, City of Santa Fe. Santa Fe, New Mexico.

Taschek Environmental Consulting

2004 *Environmental Assessment – South Meadows Road Extension,* Santa Fe County, Santa Fe New Mexico

The Endangered Species Act Eligibility

Attachment A1

Santa Fe County Threatened & Endangered Species List

New Mexico Ecological Services Field Office

Listed and Sensitive Species in Santa Fe County

Total number of species: 15 Print

Common Name	Scientific Name	Group	Status
Yellow-billed cuckoo	*Coccyzus americanus*	Bird	Candidate
New Mexican meadow jumping mouse	*Zapus hudsonius luteus*	Mammal	Candidate
Southwestern willow flycatcher	*Empidonax traillii extimus*	Bird	Endangered
Rio Grande silvery minnow [3]	*Hybognathus amarus*	Fish	Endangered
Black-footed ferret [2]	*Mustela nigripes*	Mammal	Endangered
Mexican spotted owl Designated Critical Habitat	*Strix occidentalis lucida*	Bird	Threatened

Species of Concern

Species of Concern are included for planning purposes only.

Common Name	Scientific Name	Group	Status
American peregrine falcon	*Falco peregrinus anatum*	Bird	Species of Concern
Arctic peregrine falcon	*Falco peregrinus tundrius*	Bird	Species of Concern
Baird's sparrow	*Ammodramus bairdii*	Bird	Species of Concern
Mountain plover	*Charadrius montanus*	Bird	Species of Concern
Northern goshawk	*Accipiter gentilis*	Bird	Species of Concern
Western burrowing owl	*Athene cunicularia hypugaea*	Bird	Species of Concern
Rio Grande sucker	*Catostomus plebeius*	Fish	Species of Concern
Townsend's big-eared bat	*Corynorhinus townsendii*	Mammal	Species of Concern
Santa Fe cholla	*Opuntia viridiflora*	Plant	Species of Concern

Endangered	Any species which is in danger of extinction throughout all or a significant portion of its range.	**Threatened**	Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
Candidate	Candidate Species (taxa for which the Service has sufficient information to propose that they be added to list of endangered and threatened species, but the listing action has been precluded by other higher priority listing activities).	**Proposed**	Any species of fish, wildlife or plant that is proposed in the Federal Register to be listed under section 4 of the Act. This could be either proposed for endangered or threatened status.
Species of Concern	Taxa for which further biological research and field study are needed to resolve their conservation status OR are considered sensitive, rare, or declining on lists maintained by Natural Heritage Programs, State wildlife agencies, other Federal agencies, or professional/academic scientific societies. Species of Concern are included for planning purposes only.		

Foot Notes:

D Designated Critical Habitat.

P Proposed Critical Habitat.

1 Introduced population.

3 Extirpated in this county.

2 Survey should be conducted if project involves impacts to prairie dog towns or complexes of 200-acres or more for the Gunnison's prairie dog (*Cynomys gunnisoni*) and/or 80-acres or more for any subspecies of Black-tailed prairie dog (*Cynomys ludovicianus*). A complex consists of two or more neighboring prairie dog towns within 4.3 miles (7 kilometers) of each other.

The Endangered Species Act Eligibility

Attachment A2

State of NM Deptartment of Game & Fish Comment Letter

GOVERNOR
Bill Richardson

DIRECTOR AND SECRETARY
TO THE COMMISSION
Bruce C. Thompson, Ph.D.

Robert Jenks, Deputy Director

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way
Post Office Box 25112
Santa Fe, NM 87504
Phone (505) 476-8008
Fax (505) 476-8124

Visit our website at www.wildlife.state.nm.us
For information call 505/476-8000
To order free publications call 1-800-862-9310

STATE GAME COMMISSION

Alfredo Montoya, Chairman
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Jim McClintic, Commissioner
Albuquerque, NM

Terry Z. Riley, Ph.D., Commissioner
Tijeras, NM

M. H. "Dutch" Salmon, Commissioner
Silver City, NM

Leo V. Sims, II, Commissioner
Hobbs, NM

October 19, 2007

PJ Doolittle
City of Santa Fe
PO Box 909
Santa Fe, NM 87504

Re: Seeking authorization to discharge pollutants to waters of the United State under the National Pollutant Discharge Elimination System General Permit.
NMGF No. 11764

Dear Mr. Doolittle,

In response to your letter dated October 18, 2007, regarding the above referenced project, the Department of Game and Fish (Department) does not anticipate significant impacts to wildlife or sensitive habitats. For your information, we have enclosed a list of sensitive, threatened and endangered species that occur in Santa Fe County.

For more information on listed and other species of concern, contact the following sources:

1. BISON-M Species Accounts, Searches, and County lists: http://www.bison-m.org
2. Habitat Handbook Project Guidelines: http://wildlife.state.nm.us/conservation/habitat_handbook/index.htm
3. For custom, site-specific database searches on plants and wildlife. Go to Data then to Free On-Line Data and follow the directions go to: http://nmnhp.unm.edu
4. New Mexico State Forestry Division (505-827-5830) or http://nmrareplants.unm.edu/index.html for state-listed plants
5. For the most current listing of federally listed species **always** check the U.S. Fish and Wildlife Service at (505-346-2525) or http://www.fws.gov/ifw2es/NewMexico/index.cfm .

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Terra Manasco at (505) 476-8101 or terra.manasco@state.nm.us.

Sincerely,

Matthew Wunder, Chief
Conservation Services Division

MW:td

cc: Wally Murphy, Ecological Services Field Supervisor, USFWS
Brian Gleadle, NW Area Operations Chief, NMGF
Mark Olson, NW Area Habitat Specialist, NMGF

NEW MEXICO WILDLIFE OF CONCERN
SANTA FE COUNTY

For complete up-dated information on federal-listed species, including plants, see the US Fish & Wildlife Service NM Ecological Services Field Office website at http://www.fws.gov/ifw2es/NewMexico/SBC.cfm. For information on state-listed plants, contact the NM Energy, Minerals and Natural Resources Department, Division of Forestry, or go to http://nmrareplants.unm.edu/. If your project is on Bureau of Land Management, contact the local BLM Field Office for information on species of particular concern. If your project is on a National Forest, contact the Forest Supervisor's office for species information.

Common Name	Scientific Name	NMGF	US FWS	critical habitat
Rio Grande Chub	Gila pandora	s		
Bald Eagle	Haliaeetus leucocephalus	T	T	
Northern Goshawk	Accipiter gentilis	s	SOC	
Peregrine Falcon	Falco peregrinus	T	SOC	
White-tailed Ptarmigan	Lagopus leucurus	E		
Mountain Plover	Charadrius montanus	s	SOC	
Least Tern	Sterna antillarum	E	E	
Yellow-billed Cuckoo	Coccyzus americanus	s	C	
Mexican Spotted Owl	Strix occidentalis lucida	s	T	Y
Boreal Owl	Aegolius funereus	T		
Burrowing Owl	Athene cunicularia		SOC	
Black Swift	Cypseloides niger	s		
Violet-crowned Hummingbird	Amazilia violiceps	T		
Southwestern Willow Flycatcher	Empidonax traillii extimus	E	E	Y
Loggerhead Shrike	Lanius ludovicianus	s		
Gray Vireo	Vireo vicinior	T		
Baird's Sparrow	Ammodramus bairdii	T	SOC	
Western Small-footed Myotis Bat	Myotis ciliolabrum melanorhinus	s		
Yuma Myotis Bat	Myotis yumanensis yumanensis	s		
Long-legged Myotis Bat	Myotis volans interior	s		
Fringed Myotis Bat	Myotis thysanodes thysanodes	s		
Pale Townsend's Big-eared Bat	Corynorhinus townsendii pallescens	s	SOC	
Yellow-bellied Marmot	Marmota flaviventris	s		
Gunnison's Prairie Dog	Cynomys gunnisoni	s		
Heather Vole	Phenacomys intermedius intermedius	s		
Red Fox	Vulpes vulpes	s		
American Marten	Martes americana origenes	T		
Western Spotted Skunk	Spilogale gracilis	s		
Lilljeborg's Peaclam	Pisidium lilljeborgi	T		
Socorro Mountainsnail	Oreohelix neomexicana	s		