

ENVIRONMENTAL ASSESSMENT

SOUTH MEADOWS ROAD EXTENSION

IN SANTA FE COUNTY

Agua Fria Road to NM 599 Frontage Road

Project No. ST-7549(276)

CN 7322

Prepared for:
Santa Fe County
In cooperation with
New Mexico Department of Transportation
And
Bureau of Land Management

Prepared By:
Taschek Environmental Consulting

August 2004

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

1.1 Introduction to Project and Process..... 1

1.2 Need for the Proposed Action..... 4

1.2.1 Existing Roadway System..... 4

1.2.2 Congestion and Existing Traffic Operations..... 5

1.2.3 Future Traffic 6

1.2.4 Accident Data 7

1.2.5 System Connectivity 8

1.2.6 Accessibility 8

1.3 Conformance with Land Use Plan..... 9

1.4 Relationship to Statutes, Regulations, or Other Plans 9

1.5 Summary of Public Participation 10

2.0 PROPOSED ACTION AND ALTERNATIVES 11

2.1 Proposed Action 12

2.2 No Action Alternative 13

2.3 Alternatives Considered but Eliminated from Detailed Analysis..... 15

2.3.1 Alternative A 15

2.3.2 Alternative B 16

2.3.3 Alternative C 16

3.0 AFFECTED ENVIRONMENT and POTENTIAL IMPACTS 17

3.1 General Setting..... 17

3.2 Affected Resources..... 17

3.3 Direct Impacts of the Proposed Action..... 17

3.3.1 Land Use and Development 17

3.3.2 Socio-Economic Conditions..... 18

3.3.2.1 Environmental Justice 18

3.3.3 Social Considerations..... 19

3.3.3.1 Parks..... 19

3.3.3.2 Schools 19

3.3.3.3 Police, Fire, and Hospitals..... 19

3.3.3.4 Public Transit..... 20

3.3.3.5 Future Traffic..... 20

3.3.3.6	Recreation.....	20
3.3.4	Prime or Unique Farmlands	20
3.3.5	Range	21
3.3.6	Air Quality.....	21
3.3.6.1	Noise	21
3.3.6.2	Construction Noise.....	23
3.3.7	Utilities.....	23
3.3.8	Water Quality	23
3.3.8.1	Surface Water	23
3.3.8.2	Groundwater.....	24
3.3.8.3	Floodplains	24
3.3.9	Visual Quality.....	25
3.3.9.1	Visual Impacts Assessment	26
3.3.10	Soils	27
3.3.11	Wilderness.....	28
3.3.12	Vegetation	28
3.3.13	Wildlife	29
3.3.14	Threatened and Endangered Species	29
3.3.15	Invasive and Non-native species	31
3.3.16	Wetlands and Riparian Areas	31
3.3.17	Wild and Scenic Rivers.....	31
3.3.18	Cultural Resources.....	31
3.3.19	Hazardous Materials	32
3.3.20	Mineral Resources	32
3.3.21	Areas of Critical Environmental Concern.....	32
3.3.22	Construction Impacts	32
3.4	Indirect and Cumulative Impacts of The proposed action.....	33
3.5	Impacts of No Action Alternative	35
4.0	ENVIRONMENTAL COMMITMENTS TO MINIMIZE POTENTIAL ADVERSE EFFECTS.....	35
4.1	Mitigation Measures During Construction	36
4.2	Hazardous Materials	36
4.3	U.S. Army Corps of Engineers Permits.....	36

4.4	Cultural Resources	37
4.5	Migratory Bird Treaty Act Compliance	37
5.0	CONSULTATION AND COORDINATION	37
5.1	Agency Coordination.....	37
5.2	Public Involvement.....	37
5.3	List of Preparers	39
6.0	LIST OF REFERENCES.....	40

LIST OF FIGURES

Figure 1.1: Location Map.....	2
Figure 1.2: Study Area Map	3
Figure 2.1: Alternative Alignments	14

LIST OF TABLES

Table 1.1 - Existing Average Daily Traffic Volumes.....	5
Table 1.2 – Existing Level of Service.....	6
Table 1.3 - Projected Average Daily Traffic Volumes	7
Table 1.4 - Projected LOS for 2020.....	7
Table 1.5 - Federal, State, and Local Agencies and Authorizing Actions	10
Table 3.1 – 2000 Population Characteristics.....	18
Table 3.2 - Noise Abatement Criteria	22
Table 3.3 - VRM Classes and Management Objectives	25
Table 3.4 - Santa Fe County Soils Descriptions.....	28
Table 3.5 - Potentially Occurring Sensitive Plant Species.....	30
Table 3.6 - Potentially Occurring Sensitive Animal Species	30
Table 3.7 - Agency Permits	33
Table 5.1 - Federal, State, and Local Agency Correspondence	38

APPENDICES

- Appendix A: Agency and Public Coordination
- Appendix B: Sensitive Plant and Animal Species List

LIST OF ABBREVIATIONS

ACEC	Areas of Critical Environmental Concern
AWDT	average weekday traffic
BLM	U.S. Bureau of Land Management
BMP's	Best Management Practices
CAA	Clean Air Act
CWA	Clean Water Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
FEMA	Federal Emergency Management Agency
FHWA's	Federal Highways Administration's
FIRM	Flood Insurance Rate Map
ISA	initial site assessment
LOS	levels of service
MPH	miles per hour
MPO's	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environmental Department
NMEMNRD	New Mexico Energy, Minerals, and Natural Resources Department
NPEDS	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NWP	Nationwide Permit
PIP	public involvement plan
RMP	Resource Management Plan
SHPO	State Historic Preservation Officer
SWPPP	storm water pollution prevention plan
TNM	Traffic Noise Model
USACE	U.S. Army Corps of Engineers

USFWS	U.S. Fish and Wildlife Service
USFS	U.S. Forest Service
VPH	vehicles per hour
VRM	Visual Resource Management

1.0 INTRODUCTION

1.1 INTRODUCTION TO PROJECT AND PROCESS

The National Environmental Policy Act of 1969 (NEPA) requires a systematic, interdisciplinary approach to planning and project implementation and emphasizes that the environmental impacts of federal actions must be given serious consideration in the decision-making process. Environmental documentation consistent with NEPA and other applicable laws and regulations are required on all proposed federal actions. These documents allow resource managers to make informed decisions regarding project approval and stipulations necessary to mitigate adverse impacts.

An environmental analysis process was undertaken by Santa Fe County (County), in cooperation with the New Mexico Department of Transportation (NMDOT) and the US Bureau of Land Management (BLM), for the proposed extension of South Meadows Road. The location of the proposed project is shown in Figure 1.1. The analysis was conducted because the South Meadows Road extension is a new transportation facility that is anticipated to utilize NMDOT funding and because some of the right-of-way being considered includes federally-managed BLM land.

The environmental analysis was conducted in accordance with NMDOT and BLM procedures for preparing environmental documents, including the requirements of Chapter 23, Part 771, Code of Federal Regulations (23 CFR 771) and USBLM Handbook H-1790-1. This document is the environmental assessment (EA) prepared for the project. The preparation of the EA is being done in consultation with numerous federal and state agencies including local and regional planning agencies. The EA serves to inform the public and elected officials of the consequences of the proposed action. An important purpose of the EA is to determine whether or not there will be significant environmental effects, requiring preparation of an environmental impact statement (EIS).

The primary purpose for the South Meadows Road extension is to provide a means of reducing traffic congestion and improving roadway safety in the southwestern part of Santa Fe County. The extension would provide an alternate transportation linkage between Agua Fria Street and the Santa Fe Relief Route (NM 599), which would provide relief to other facilities in the area. The South Meadows Road project would also provide access opportunities to property in the area and would implement local transportation plans and policy.

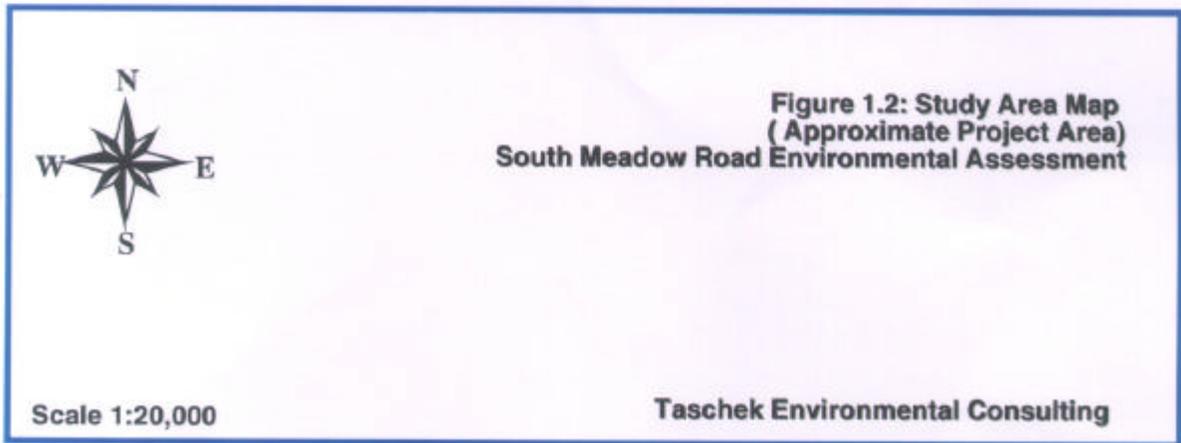
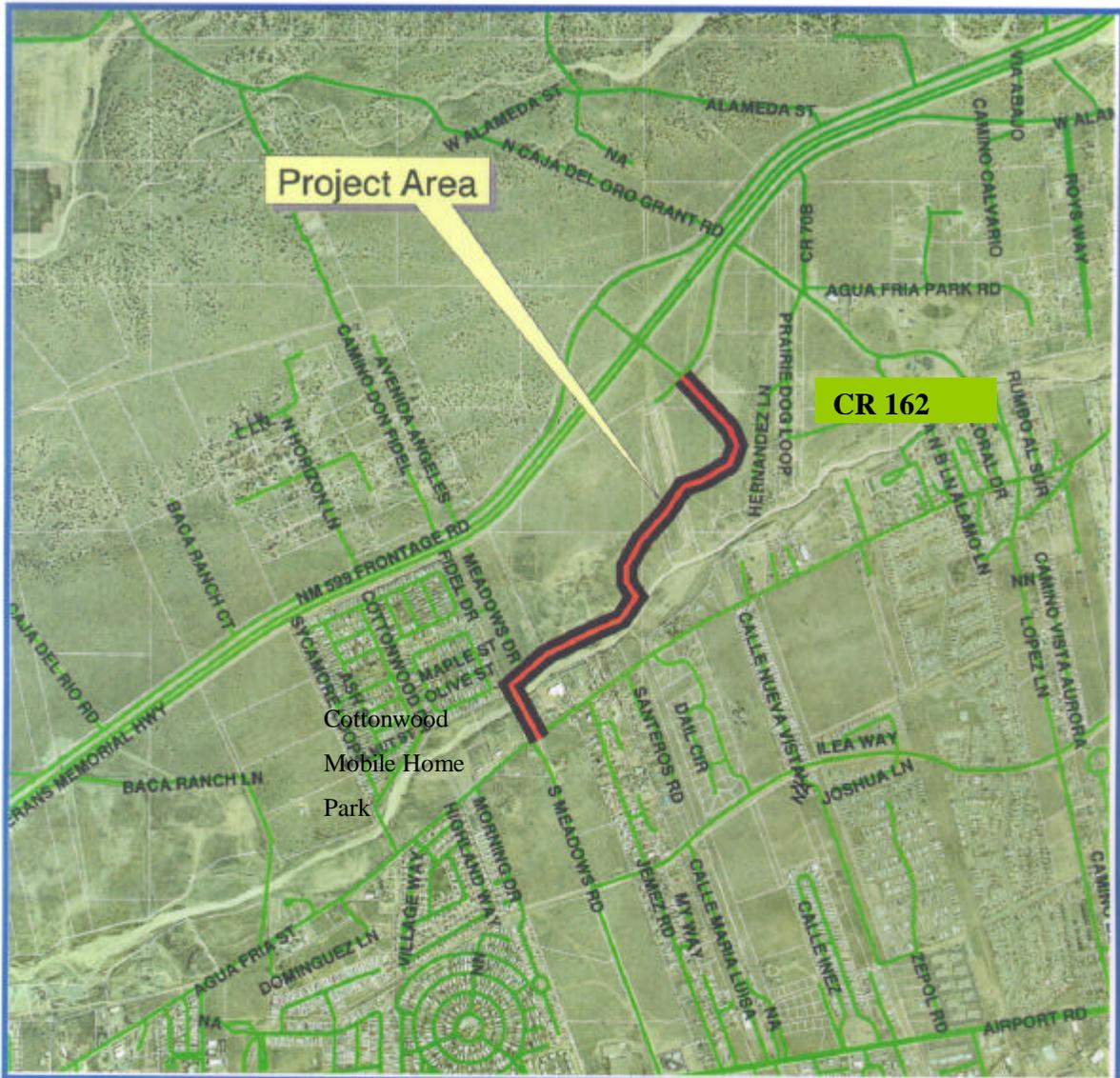
The project would extend South Meadows from Agua Fria to the NM 599 Frontage Road, at County Road 62. The study boundaries are identified below and in Figure 1.2:

- ? Agua Fria Road on the south
- ? NM 599 Frontage Road on the north
- ? Cottonwood Mobile Home Park on the west
- ? County Road 62 on the east



**Figure 1.1: Location Map
South Meadows Road Environmental Assessment**

Taschek Environmental Consulting



1.2 NEED FOR THE PROPOSED ACTION

Standard engineering practices in the NMDOT's *Location Study Procedures* (2000) for identifying the purpose and need for transportation projects include consideration of factors such as physical deficiencies, travel demand and congestion, safety, system connectivity, accessibility, economic development, and compatibility with plans and policy mandates.

An evaluation of the above stated factors indicates a need for an alternative route between Agua Fria Street and the Santa Fe Relief Route (NM 599). The primary purpose for the South Meadows Road extension is to provide a means of relieving traffic congestion and improving safety on the arterial street system in southwestern Santa Fe County. By providing an alternate transportation linkage between Agua Fria Street and the Santa Fe Relief Route (NM 599), South Meadows Road would provide relief to other facilities and improve access to surrounding property in the area.

1.2.1 Existing Roadway System

Several sections of South Meadows Road already exist in Santa Fe County, including a section from Cerrillos Road (through Jaguar Road) to Airport Road and between Rufina Street and Agua Fria Street. A traffic signal was recently installed at the intersection of South Meadows Road/Agua Fria Road. Recent improvements also include the construction of a reinforced concrete drainage trunk line and outfall line that drains into the Santa Fe River. The City of Santa Fe has plans to connect South Meadows Road from Airport Road to Rufina Street in the future.



S. Meadows Looking South Towards Airport Road



Future S. Meadows Looking North From Airport Road

The proposed project would extend approximately 0.75 to 0.90 miles, crossing over the Santa Fe River, from Agua Fria Street to NM 599 Frontage Road.



Beginning of S.Meadows Extension at Agua Fria Road



Approximate Location Of Santa Fe River Crossing

1.2.2 Congestion and Existing Traffic Operations

Local officials and planners have discussed the benefits of extending South Meadows Road for a number of years. The Santa Fe Metropolitan Planning Organization’s (MPO’s) traffic model has shown that this connection would have significant impact in relieving traffic congestion on the arterial streets in this part of the City, primarily on Agua Fria Street. The major arterials serving the southwestern part of the City of Santa Fe and this part of Santa Fe County include:

- ? Agua Fria Street
- ? Airport Road
- ? NM 599
- ? County Road 62

Existing average weekday traffic (AWDT) volumes for these streets, obtained from the MPO, are summarized in Table 1.1.

Table 1.1 - Existing Average Daily Traffic Volumes

FACILITY/LOCATION	EXISTING AVERAGE DAILY TRAFFIC VOLUMES
Agua Fria Road	
West of South Meadows	3,000 to 4000
East of South Meadows	4,300
East of CR 62	10,000
Airport Road	
West of South Meadows	11,000
East of South Meadows	12,000 to 14,000
NM 599 (SF Relief Route)	
West of CR 62	11,000
East of County Road 62	13,000
County Road 62	
North of Agua Fria	6,000 to 7,000

In order to assess the existing traffic operations, the levels of service (LOS) for the area’s arterial streets were analyzed. LOS generally describes traffic operational conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. There are six designated levels of service, given letters A through F, with LOS A representing the best conditions and LOS F the worst.

Table 1.2 summarizes the existing LOS for the streets located in the vicinity of the proposed South Meadows extension.

Table 1.2 – Existing Level of Service

EXISTING LEVEL OF SERVICE	
FACILITY/LOCATION	EXISTING LEVEL OF SERVICE
Agua Fria - West of South Meadows	C
Agua Fria - East of CR 62	D
Airport Road - Vicinity of South Meadows	A
County Road 62 - North of Agua Fria	C
NM 599 - Vicinity of South Meadows	A

The analysis shows that Agua Fria Road east of South Meadows Road is already operating at a poor but acceptable LOS (D). Agua Fria Road west of South Meadows and CR 62 are operating at an acceptable LOS (C), while Airport Road and NM 599 are operating at a good LOS (A). Level of service computations and more detailed descriptions are included in the *Location Study Report for the South Meadows Road Extension* (Gannett Fleming West, Inc., 2003).

1.2.3 Future Traffic

Traffic projections were provided by the Santa Fe MPO to evaluate the effect of the project, assuming that the South Meadows connection would be in place by 2020. These projections show that the construction of the South Meadows extension as proposed would reduce traffic on Agua Fria, in comparison to the no-build scenario. County Road 62 traffic volumes also would decrease with the South Meadows connection. Volumes on Airport Road and NM 599 would increase slightly as a result of the project, but these are high capacity major arterial roads.

The traffic forecasts provided by the Santa Fe MPO showed that the extension of South Meadows Road would carry approximately 5,000 vehicles per day by the year 2020. Table 1.3 summarizes the projected traffic volumes in 2020 for the surrounding arterial streets, assuming that the South Meadows Road extension would be in place. Utilizing the projected traffic volumes, a capacity analysis was prepared for the proposed South Meadows Road extension and the streets in the vicinity. Table 1.4 summarizes the LOS for the 2020 forecasted traffic volumes.

Additional analysis of future traffic effects is found in Section 3.3.3.6.

Table 1.3 - Projected Average Daily Traffic Volumes

FACILITY/LOCATION	2020 PROJECTED TRAFFIC VOLUMES
Agua Fria Road	
West of South Meadows	8,600
East of South Meadows	6,300
East of CR 62	13,000
Airport Road	
West of South Meadows	19,000
East of South Meadows	18,000 to 20,000
NM 599 (SF Relief Route)	
West of CR 62	21,000
East of CR 62	27,000
County Road 62	
North of Agua Fria Street	5,000 to 6,000
South Meadows Road	
North of Agua Fria Street	5,000
Airport Road to Agua Fria Street	7,000
Jaguar Road to Airport Road	7,000 to 8,000

Table 1.4 - Projected LOS for 2020

PROJECTED LEVEL OF SERVICE	
FACILITY/LOCATION	PROJECTED LEVEL OF SERVICE
Agua Fria - West of South Meadows	C
Agua Fria - East of CR 62	D
Airport Road - Vicinity of South Meadows	B
County Road 62 - North of Agua Fria	C
NM 599 - Vicinity of South Meadows	C
South Meadows - Airport Road to Agua Fria	E
South Meadows - Agua Fria to NM 599	E

1.2.4 Accident Data

The surrounding arterial street network, including Agua Fria Street, Airport Road, and Cerrillos Road, has experienced a significant number of accidents over the past three years. Some of these accidents can be attributed to congestion problems and physical deficiencies on the streets. The South Meadows Road extension would provide traffic relief to these streets and would provide an alternative for highway users wanting to access NM 599, which may reduce accidents on the surrounding arterial street system.

Accident data was obtained from the NMDOT for the two major arterials that would be most impacted by the extension of South Meadows Road.

- ? Agua Fria Road (between Airport Road and Siler Road) averaged approximately 30 accidents per year between 1999 and 2001. For this 3.9-mile long segment; the majority of the accidents were of the property damage or injury type. The highest concentration of accidents was recorded at the higher volume intersections of Jemez Road, Camino Los Lopez, and Siler Road. Cottonwood Drive and Henry Lynch Road also experienced a moderate number of accidents. The 3-year accident rate for this segment was 2.49 accidents per million vehicle miles of travel west of South Meadows Road and 2.54 accidents per million vehicle miles east of South Meadows Road.
- ? Airport Road (between NM 599 and Cerrillos Road) averaged approximately 128 accidents per year between 1999 and 2001, for this 3.1-mile long segment. As was the case on Agua Fria, the majority of the accidents were of the property damage or injury type. There were two recorded fatalities during this three year period. The highest concentration of accidents was recorded at the intersections of Zepol Road, Calle Atajo, Camino Los Lopez (Lopez Lane)/Camino Entrada, and at Cerrillos Road. Other intersections that experienced a moderate number of accidents within this segment include Jemez Road, South Meadows Road, Paseo del Sol, San Felipe/CR 66/Country Club Road, and Constellation (Riverside)/Old Airport Road. The 3-year accident rate for this segment was 8.10 accidents per million vehicle miles for Airport Road.

The statewide accident rate for year 2000 was 1.92. Agua Fria Road experienced a slightly higher rate than the statewide average, while Airport Road experienced a significantly higher rate than the statewide average. The reduction of total travel and congestion on these streets, resulting from the South Meadows Road Extension project, will also help to reduce the number of accidents.

1.2.5 System Connectivity

The South Meadows Road extension is also considered to be an important transportation linkage that will enhance the system connectivity of the Santa Fe County road network. Construction of the extension will provide the second to last link for a direct and continuous connection from Cerrillos Road (through Jaguar Road) to the Santa Fe Relief Route (NM 599). The extension of South Meadows Road is included in the *City of Santa Fe's General Plan* as a proposed major street improvement required to accommodate the ultimate future land use conditions envisioned in the Plan. The Santa Fe MPO's *Long Range Transportation Plan* (2000-2020) also includes the extension of South Meadows Road from Airport Road to the Relief Route, as part of the Future Road Network.

1.2.6 Accessibility

The South Meadows Road extension will enhance accessibility in the area. Access to NM 599 is currently limited in southwest Santa Fe; South Meadows would provide another means to access this facility. The South Meadows extension would provide another bridge over the Santa Fe River. The Cottonwood Mobile Home Park currently is only accessible from Agua Fria Road, and South Meadows Road would provide an alternative access for this development. State and federal lands located in the area also have limited access in this area. South Meadows Road will provide access to these lands, allowing the management agencies to make the highest land use possible. South Meadows Road will be used to guide formal transportation and land use planning in the immediate area.

The access points on South Meadows would be limited. As a part of the design phase for this project, an access management plan will need to be developed. Access is anticipated at the following locations:

- ? Cottonwood Mobile Home Park
- ? Private Properties adjacent to the new alignment (one access point per lot)
- ? State Lands
- ? BLM Lands

Improved access in the South Meadows Road corridor should have some degree of impact in facilitating future economic development in the southwest part of Santa Fe.

1.3 CONFORMANCE WITH LAND USE PLAN

The proposed action is within an area that is covered by the BLM's *Taos Resource Management Plan* (RMP) (1988). The RMP provides a comprehensive framework for managing public lands and allocating resources under the principles of multiple use and sustainable yield. Generally, the RMP establishes areas of limited or restricted use (for example mining or grazing), and management directions.

Within the specific location of the proposed extension of South Meadows Road, there are no special management areas identified in the RMP. Conditions for issuing right-of-way identified in the RMP include the specification that proposed right-of-way not be within the right-of-way exclusion area and that the applicant be a qualified user of public land. Both conditions are met, as the proposed BLM land is not within the right-of-way exclusion area and Santa Fe County is a qualified user of public land.

1.4 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

The proposed project is consistent with other state, regional and local planning documents and proposed actions. The *Santa Fe Urban and Extraterritorial Future Roads Plan*, adopted by the Santa Fe County Board of Commissioners and the Santa Fe City Council in 1999, supports the extension of South Meadows Road. This plan shows South Meadows Road as one of the most urgent projects to address the County's transportation needs. It is shown as the highest priority project for the Agua Fria Subregion.

The extension of South Meadows Road is also included in the *City of Santa Fe's General Plan* as a proposed major street improvement. The Santa Fe MPO's *Long Range Transportation Plan* (2000-2020) includes the extension of South Meadows Road as part of the Future Road Network. The Southwest Santa Fe Community Area Master Plan also identifies the South Meadows Road extension as a necessary part of roadway connections and traffic circulation.

As proposed, the extension of South Meadows Road is in conformance with Santa Fe County's Land Development Code. In addition, it meets Santa Fe County and State of New Mexico's standards for arterial roads.

Development of the South Meadows Road extension project will involve a variety of federal, state, and local permits, authorization and approvals, including consultation with federal, state and local government agencies and authorities. A summary of the authorizing actions is presented in Table 1.5.

Table 1.5 - Federal, State, and Local Agencies and Authorizing Actions

Agency	Nature of Action
U.S. Bureau of Land Management	Conformity with Resource Management Plan, NEPA analysis, and approval of ROW application
U.S. Environmental Protection Agency	Clean Water Act Section, National Pollutant Discharge Elimination System, Stormwater Pollution Prevention Plan for erosion control and compliance with Clean Air Act
U.S. Fish and Wildlife Service	Consultation on effects of project on federally listed or proposed threatened and endangered species and critical habitat
New Mexico State Historic Preservation Office	Consultation for cultural resource inventory, evaluation, and mitigation
New Mexico Department of Transportation	Conformance with regulations for NEPA Compliance
New Mexico Environment Department	Conformance with water quality regulations
New Mexico Property Control Division	Conformance with plans for development of the land
New Mexico Energy, Minerals, and Natural Resources Department	Consultation on project effects on state listed or proposed threatened, endangered, and sensitive species and habitat
City of Santa Fe	Land-use plan compatibility
Santa Fe County	Land-use plan compatibility

A summary of the results of the coordination with the above agencies is included in Chapter 5 of this EA.

1.5 SUMMARY OF PUBLIC PARTICIPATION

Coordination with the public is an ongoing element of the South Meadows Road extension project. A public involvement plan (PIP) for the project was developed in December 2002 (Southwest Environmental Resources). The PIP was developed and implemented in accordance with applicable portions of the *NMDOT's Location Study Procedures* (August, 2000), NEPA, and Federal Highway Administration's (FHWA's) *Guidelines for Environmental Impact and Related Procedures*. The purpose of the public involvement effort was to facilitate two-way exchange of information between the project study team and the stakeholders in the community, including affected property owners, commuters, area residents, the business community, public agencies, local civic organizations with an interest in the study, and others.

Public involvement activities included notification letters to public agencies and local area residents. In addition, two public information meetings were held to provide information on the proposed project for interested organizations and individuals. Information regarding social, economic, and environmental impacts was solicited through this process. A summary of the responses and recommendations received from the public at those meetings is presented in this section. A detailed outline of the two meetings is included in Appendix A.

The two public information meetings utilized an “open house” format. This included a brief presentation on the project, including alternatives and impacts. The participants were then given the opportunity to present comments or questions.

The first public information meeting was held on January 15, 2003, at the Agua Fria Elementary School in Santa Fe, New Mexico. Four initial alternatives were presented. The main issues discussed at the meeting included environmental impacts along the river, access limitations, pedestrian facilities, and impacts of the different alternatives.

The second public information meeting was held on February 26, 2004, at the Agua Fria Fire Station, to discuss the scope of the project with local residents and identify particular concerns. In general, the issues discussed at this meeting included impacts to the Santa Fe River, cultural resources, noise on Agua Fria Street, access limitations, and the possibility of a grade-separated interchange or traffic signal at NM 599.

Following the public information meetings, several written responses were received addressing similar concerns such as environmental issues and access limitations

Issues presented at the public information meetings and through the written comments were considered and addressed to the degree possible through design decisions and this environmental document.

2.0 PROPOSED ACTION AND ALTERNATIVES

This chapter provides information on the proposed action, the no-action alternative, and three alternatives considered but eliminated from detailed analysis. The analysis used to determine the alternative recommended as the proposed action involved a detailed assessment of engineering and environmental information and community input. This process included the preparation of conceptual plans and preliminary right-of-way requirements, traffic forecasts and assessments of traffic operations, costs, environmental impacts, and social effects. The conceptual design concepts include plan and profile drawings to illustrate the horizontal and vertical alignment, slope limits, bridge requirements, existing right-of-way and additional right-of-way requirements, and driveway and turnout locations. Typical roadway and bridge sections were also developed to reflect the number and width of lanes, median treatments, shoulder widths, and sidewalks or future pedestrian trails. The design of the future pedestrian trails may require additional planning efforts beyond the scope of the proposed action.

The proposed action and the three additional alternatives considered were evaluated with an identical typical roadway section, which would consist of:

South of North Bank of the Santa Fe River – “Urban Section”

- 2 – 11 foot lanes
- 2 – 5 foot paved shoulders
- 2 – 2 foot curbs
- 2 – 5 foot sidewalks

North of North Bank of the Santa Fe River – “Rural Section”

- 2 – 12 foot lanes
- 2 – 6 foot paved shoulders
- 2 – Surfacing Tapers
- Area for future pedestrian trail

The design speed for the proposed extension of South Meadows Road would be 40 miles per hour (mph). The proposed Posted Speed would be 35 mph.

2.1 PROPOSED ACTION

The alignment represented as the proposed action (Alternative C2) would start at the intersection of Agua Fria Street and South Meadows Road and proceed north across the Santa Fe River. Between Agua Fria and the Santa Fe River, the alignment would be contained within the 66-foot right-of-way already acquired by Santa Fe County. An additional 15 to 20 feet of right-of-way would be required in this section of the corridor on the west side of the river. The alignment would proceed northeasterly through private properties north of the Santa Fe River and continue northeasterly across BLM land. The entire 80-feet of right-of-way would be acquired from BLM land for a distance of approximately 460 feet (about 0.85 acre). The alignment would then proceed north on a horizontal curve across two additional private properties and another small portion of BLM land (approximately 0.15 acres or less in size), which would allow the alignment to avoid an archaeological site. Total right-of-way required of the BLM is approximately one acre. The South Meadows extensions would terminate immediately northwest of the BLM land at the intersection of the NM 599 frontage road and CR 62 (see Figure 2.1).

The portion of the project proposed on BLM land consists of the typical “rural” roadway section, which consists of two driving lanes (12 feet each), two paved shoulders (6 feet each), two surfacing tapers (4 feet each), and a multi-purpose trail (minimum of 5 feet).

The primary advantage of the preferred alignment, and the reason why it was developed, is that it provides the safest and most direct connection with the County Road 62/NM 599 Frontage Road intersection. As shown in Figure 2.2, this alignment provides a perpendicular intersection at the NM 599 Frontage Road and lines up directly with County Road 62, which allows a safe stop-controlled intersection.

The preferred alignment would provide limited access to adjacent properties, including the Cottonwood Mobile Home Park, State Land Office property, BLM land, and a number of private properties.

The proposed action would require that the bridge over the Santa Fe River be built at a slight skew. The length of the alignment is 0.92 mile. The proposed action would require 9.6 acres of new right-of-way for the proposed improvements, including approximately one acre of BLM land. The total cost of this proposed action is approximately \$2,221,000, including final design, right-of-way acquisition, access to properties, and construction management.

The proposed improvements would provide for a paved shoulder throughout the project limits, which can be utilized by bicyclists. Sidewalks would be carried to just north of the Santa Fe River. Future sidewalk construction north of the river would be considered as the area develops. The proposed right-of-way will provide sufficient room to accommodate a recreational trail or future sidewalk.

A river trail, as identified in the MPO *Long Range Transportation Plan* and *Southwest Santa Fe Community Area Master Plan*, would be located within the 200 foot public access easement on the north side of the river. A secondary “loop” trail would also be located along South Meadows from the Rufina Street trail to the river.

2.2 NO ACTION ALTERNATIVE

The No Action Alternative assumes that the South Meadows Road extension would not be constructed between Agua Fria Street and the NM 599 Frontage Road. Traffic would continue to utilize the existing roadway system to access destinations. Streets, including, Agua Fria Street, Airport Road, and County Road 62, would experience continued growth in traffic volumes, leading to increased congestion and traffic delays.



2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Initially, the following three alternatives were considered, along with the proposed action. The results of the analysis indicated that these alternatives should be eliminated from further consideration. The alignment alternatives and reasons for their elimination are discussed below.

2.3.1 Alternative A

Alternative A would start at the intersection of Agua Fria and proceed north across the Santa Fe River. The alignment would cross two private properties that border the Cottonwood Mobile Home Park, then proceed east through two additional private properties and continue along State Lands to the existing NM 599 Frontage Road west of the County Road 62 (see Figure 2.1).



Looking West Towards Cottonwood Mobile Home Park



Looking West Towards NM 599 Frontage Road "Stub-out"

North of the Santa Fe River, Alternative A would border the Cottonwood Mobile Home Park. This alignment would provide access to the mobile home park, as well as to private and State Lands. The smaller private property lots along this alignment would likely require complete acquisition because the remaining properties would no longer be suitable for development. Access points would be limited and would be determined during the design phase.

Alternative A would require 7.7 acres of new right-of-way for the proposed improvements. The length of this alternative is 0.79 mile. The total cost of this alternative is \$1,976,000, including final design, right-of-way acquisition, a connection to the Cottonwood Trailer Park, and construction management.

Although Alternative A would be less costly than the preferred alternative, it was not recommended for advancement for detailed analysis due to its close proximity to the Cottonwood Mobile Home Park, which would create potential traffic noise impacts. This alternative would also have an indirect connection to CR 62, which would require that traffic use the NM 599 Frontage Road and execute a number of turns to access the Relief Route. This is a less desirable configuration for access and would reduce safety.



Existing North/South Easement E. of Cottonwood Mobile Home Park

2.3.2 Alternative B

Alternative B would start at the intersection of Agua Fria Road and proceed north across the Santa Fe River (see Figure 2.1). The alignment would proceed northeasterly through three private properties, continue across State Land, and connect to the existing NM 599 Frontage Road west of County Road 62. North of the Santa Fe River, Alignment B would cut across two private properties and State Lands; this would limit the development potential to all three properties. Access would be provided to all these properties and to the Cottonwood Mobile Home Park.

Alternative B would require 7.3 acres of new right-of-way for the proposed improvements. The total cost of this alternative is \$1,953,000, including final design, right-of-way acquisition, access to property, and construction management. The length of this alternative is 0.72 mile.

Alternative B was not recommended for advancement for detailed analysis due to impacts to existing properties. This alternative received unfavorable public and agency input, primarily due to the fact that it bisects some of the larger land parcels, which would restrict their development potential. In addition, in a similar manner to Alternative A, this alternative would also have an indirect connection to CR 62, which would require that traffic execute a number of turns to access the Relief Route from the frontage road.

2.3.3 Alternative C

Alternative C would start at the intersection of Agua Fria Road and proceed north across the Santa Fe River. The alignment would proceed northeasterly through three private properties north of the Santa Fe River. The alignment would continue northerly along State Lands and would connect to the existing NM 599 Frontage Road west of County Road 62 (see Figure 2.1).

North of the Santa Fe River, the alignment would proceed along the property lines of three private properties and State Lands. Limited access would be provided to these properties. Access would also be provided to the Cottonwood Mobile Home Park, but would require a longer connection. Alignment C would require that the bridge over the Santa Fe River be built at a slight skew, which would result in a slightly longer and more expensive structure.

Alternative C would require 8.2 acres of new right-of-way for the proposed improvements. The length of this alternative is 0.77 mile. The total cost of this alternative is \$2,113,000, including final design, right-of-way acquisition, access connections, and construction management.

Alternative C was not recommended for advancement for detailed analysis due its indirect connection to CR 62, as described for Alternatives A and B.

3.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

3.1 GENERAL SETTING

The project boundaries for the proposed extension to South Meadows Road are the Agua Fria Road intersection on the south and the NM 599 frontage road (in the vicinity of the County Road 62 intersection) to the north. The length of the proposed action is approximately 0.92 miles, which will require 9.6 acres of acquired right-of-way. The project includes a bridge over the Santa Fe River. The proposed road intersects with BLM land at two locations and will require about one acre of BLM land. The larger section is about 460 feet in length and 80 feet in width and the smaller section is about 75 feet in length and 80 feet in width.

3.2 AFFECTED RESOURCES

The investigations conducted for this document have shown that the proposed action will not have discernable adverse impacts in any of the following areas of potential concern: socio-economic conditions (Environmental Justice), prime and unique farmland, range, air quality, water quality (surface and ground), Wild and Scenic Rivers, floodplains, soils, Wilderness, vegetation, wildlife, threatened and endangered species, Invasive and Non-native species, wetlands, riparian zones, cultural resources, hazardous materials, recreation, mineral resources, Areas of Critical Environmental Concern (ACECs) and Special Management Areas (SMA).

Implementation of the proposed project does involve some commitment of natural, physical, human, and fiscal resources. Approximately 0.92 miles of undeveloped land will be utilized for the project. This land is considered an irreversible commitment during the time it is used for the transportation facility. Fossil fuels, labor, and construction materials will be expended in the construction project. These materials are generally not retrievable; however, they are not in short supply, and their use will not have an adverse affect on continued availability of such resources. Construction will also require an expenditure of public funds, which are not retrievable. The commitment of these resources is based on the concept that safety and efficiency for vehicles traveling along South Meadows Road and on the connecting road network will be improved. The benefits of increased vehicular safety and an improved transportation network in the region are anticipated to outweigh any negative impacts from the utilization of resources.

The following section provides data on existing social, economic, and natural resource conditions in the study area. The information was assembled from a variety of sources, including a review of public records and databases, consultation with affected government agencies, meetings with the public, and field surveys. Discussion on the affected resources and impacts from the proposed project is included in this section. Details on mitigation measures that will be implemented to reduce the impacts will be discussed in the following chapter.

3.3 DIRECT IMPACTS OF THE PROPOSED ACTION

3.3.1 Land Use and Development

The project area is located within the River Corridor Plan Area as described in the *Southwest Community Area Master Plan*. The River Corridor Plan Area falls exclusively outside the city limits boundary in the Santa Fe Extraterritorial Zone. Land ownership in the project area includes private, state, and federal lands (BLM). The area is primarily undeveloped and consists of large vacant tracts. The Cottonwood Village Community (Mobile Home Park) is located at 6441 Cypress immediately west of the project area, north of Agua Fria Street, and south of NM 599. A commercial construction company is located south of the project area in the northwest

quadrant of the intersection of Agua Fria Street and South Meadows Road. Future land use in the project area consists of very low-density residential development. Community commercial development is planned south of NM 599 and west of County Road 62.

The Santa Fe Metropolitan Planning Organization’s (MPO’s) *Long Range Transportation Plan* and the *Southwest Santa Fe Community Area Master Plan* designate a River Protection Zone in the area, which includes, at a minimum, the floodway (bank to bank), a 200-foot public access easement on the north side of the river, and a setback of 75 feet on the south side of the river.

The proposed project would convert currently undeveloped land to transportation uses and require the acquisition of 9.6 acres of right-of-way. Approximately one acre of the land required for right-of-way is BLM land. This one acre of proposed BLM land is vacant; however, the contiguous BLM land north of the right-of-way has been identified for disposal.

3.3.2 Socio-Economic Conditions

Census tract data, compiled by the US Census Bureau, were evaluated to assess the demographic makeup of the project area. The study limits are fully located within Census Tract 12.03. The boundaries of Census Tract 12.03 extend from NM 599 east to County Road 62 and from Agua Fria Street north to NM 599.

As depicted in Table 3.1, census information indicates that minority and low-income populations characterize the project area. The 2000 population for Census Tract 12.03 was 2,478. In 2000, 36.4 percent of the tract was considered minority, as compared to 26.5 percent for Santa Fe County and 23.7 percent for the City of Santa Fe. Additionally, 22.7 percent within this tract are below the poverty level as compared to 12.0 percent for the County and 12.3 percent for the City.

3.3.2.1 Environmental Justice

Title VI of the Civil Rights Act of 1964 assure that individuals are not subjected to discrimination under any program or activity receiving federal assistance on the basis of race, color, national origin, age, sex, and disability. Executive Order (EO) 12898 on environmental justice directs that federal programs, policies, and activities not have a disproportionately high and adverse effect on minority and low-income populations.

Table 3.1 – 2000 Population Characteristics

Census Place	Total Population	Total Households	Average Persons/ Household	Income ^a	Age Composition ^a					Percent Minority
				Below Poverty Level	0-18	18-24	25-4	45-64	65 and over	
New Mexico	1,819,046	677,971	2.63	18.4	28.0	9.8	28.4	22.2	11.7	33.2
City of Santa Fe	62,203	27,569	2.20	12.3	20.3	8.9	29.0	28.0	13.9	23.7
Santa Fe County	129,292	52,482	2.42	12.0	24.1	8.1	29.7	27.3	10.8	26.5
Census Tract 12.03	2,478	848	2.92	22.7	32.6	9.4	34.0	19.3	4.8	36.4
Source: U. S. Census Bureau										
^a Number represents percentage of total population										

Although there are greater than average numbers of low-income and minority residents within the study area, the project does not result in displacement of people and is consistent with Title VI of the Civil Rights Act and the environmental justice policy.

The closest residents to experience both air quality and traffic noise issues would be approximately 30 mobile homes on the northeast side of the Cottonwood Village community and a few residences on Agua Fria Street about 500 feet south of the proposed action. Residents may experience short-term deterioration of air quality during construction due to operation of equipment. This will be addressed by wetting exposed soils to minimize generation of dust. Increased traffic is anticipated as a result of the project. Although increased traffic is anticipated, noise levels are not likely to increase substantially given the area's proximity to existing traffic on NM 599 and Agua Fria Street. In addition, predicted traffic volumes are not high enough to generate noise levels that will approach or exceed the Federal Highway Administration's (FHWA's) noise abatement criteria.

There will be no displacement of people on BLM land.

3.3.3 Social Considerations

3.3.3.1 Parks

The Agua Fria Community Park is located south of NM 599, north of Agua Fria Street, and east of County Road 62. The park provides the largest percentage of active public park space in the southwest Santa Fe area. No city, state or federally owned parks or recreation areas are located immediately within the project area.

There are no federally owned parks on the BLM land proposed for use in this project.

3.3.3.2 Schools

The study area is located within the Santa Fe School District. The following schools serve the project area:

- ? Agua Fria Elementary School: 3160 Agua Fria Street
- ? R.M. Sweeney Elementary School: 501 Airport Road
- ? Edward A. Ortiz Elementary School: 4164 South Meadows Road
- ? Capital High School: 4851 Paseo del Sol

The Santa Fe School District provides bus service in the project area and along the impacted street network to serve these schools. Any improvement in safety and efficiency on the roadways in the area would directly benefit school bus service for the Santa Fe School District.

3.3.3.3 Police, Fire, and Hospitals

Police protection within the study area is provided by the Santa Fe County Sheriff's Department and the New Mexico State Police Department. The Santa Fe County Fire Department provides fire protection and ambulance services to the study area. The nearest fire station (#14 Fire Place) is located southeast of the junction of NM 599 and County Road 62. St. Vincent Hospital is located at 455 St. Michael's Drive, approximately 7.4 miles east of the project area.

Correspondence from the Santa Fe County Sheriff's Department indicates that the project will benefit those residing and working within Santa Fe County by improving traffic operations on several streets and providing additional routes for units to arrive in a timely manner.

The proposed project will provide additional fire and police protection to BLM land by increasing route alternatives to access emergencies.

3.3.3.4 Public Transit

The Santa Fe Trails bus system provides bus service within the City of Santa Fe. Currently bus service is available on the entire stretch of Agua Fria Road/Street from Airport Road to the downtown area. An existing bus stop is located at the intersection of Agua Fria Street and Jemez Road. Santa Fe Trails provides weekday service in the project area between 6:00 a.m. and 11:00 p.m., Saturdays between 8:00 a.m. and to 8:00 p.m., and Sundays between 10:00 a.m. and 7 p.m.

Any improvements in traffic operations or safety along Agua Fria Road, due to the proposed South Meadows Road extension, may improve bus service in southwestern Santa Fe County. No negative impacts to public transit are anticipated.

Public transit does not access BLM land.

3.3.3.5 Future Traffic

The analysis in Section 1.2.3 indicated that the LOS on Agua Fria Road and CR 62 will be similar to existing conditions and continue to be at an acceptable level in 2020, although CR 62 will operate at LOS D. The slight declines in the future LOS is due to growth in regional traffic and not the South Meadows extension, which will help to relieve traffic on these streets. The LOS on Airport Road and NM 599 will also decrease slightly from the existing levels; however, these streets will still operate at acceptable levels.

South Meadows Road may generate significant traffic volumes resulting in a less than desirable LOS E by the year 2020. While the proposed new facility will help to reduce traffic delay in the surrounding area, it will experience some congestion itself. However, overall benefits resulting from the reduction of traffic on the entire street network outweigh the impacts of increased traffic on South Meadows Road. Further analysis of the traffic projections on South Meadows Road indicates that a four-lane facility on South Meadows Road is not warranted nor desired.

3.3.3.6 Recreation

As referenced on the City of Santa Fe Parks, Open Space and Trails Map (*City of Santa Fe Master Plan, May 2002*), proposed trails are designated along County Road 62 and NM 599. The River Trail System, as identified in the Santa Fe MPO *Long Range Transportation Plan and the Southwest Santa Fe Community Area Master Plan*, would be located within a 200-foot public access easement on the north side of the river. Coordination with city and county planners and trails coordinators will be required in the planning and design phases of this project to assure that any trails planned through this area will remain functional.

In the “urban section” of the proposed roadway, the sidewalks, curbs, and paved shoulders proposed in conjunction with the South Meadows Road extension would be an overall benefit to the pedestrian and bicycle facilities within Santa Fe County.

Within the “rural section”, which includes the BLM portion of the project, proposed improvements include a pedestrian trail and paved shoulders. These features would provide increased equestrian, pedestrian, and bicycle facilities in the area.

3.3.4 Prime or Unique Farmlands

Prime farmland is land that has the best combination of physical and chemical characteristics to produce food, feed, fiber, forage, and other agricultural crops. Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops.

Designation of prime or unique farmland is made by the U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS).

No farmland is located adjacent to the project area; therefore, no impact or involvement with any prime or unique farmland or other farmland of statewide or local importance is anticipated.

No farmland or livestock grazing will be negatively impacted on the BLM land proposed for this project.

3.3.5 Range

There are no rangelands within the project area.

3.3.6 Air Quality

The Clean Air Act (CAA), as amended, authorizes the U.S. Environmental Protection Agency to designate areas as non-attainment and classify them according to their degree of severity. A non-attainment area is an area in which compliance with the National Ambient Air Quality Standards (NAAQS) has not been established for one or more pollutants. According to the New Mexico Environment Department (NMED), the project is located in an attainment area and has maintained compliance for all criteria pollutants regulated in the NAAQS.

Some short-term deterioration of air quality may be expected during construction due to the operation of equipment. To address this issue, standard air quality mitigation measures would be implemented, including using a water truck to wet exposed soils to minimize generation of dust.

Air quality mitigation measures during construction will be implemented on BLM land.

3.3.6.1 Noise

Traffic noise is often related to social conditions because of the potential adverse effect of noise on residential development and other community land uses. Noise impacts occur when the future traffic noise levels resulting from a project approach or exceed FHWA's noise abatement criteria (NAC), shown in Table 3.2, or substantially exceed existing noise levels. Under federal guidelines in Chapter 23, Part 772 in the Code of Federal Regulations (23 CFR 772), a noise study must identify existing land use activities or sensitive receptors that may be affected by noise from the project. The categories of noise sensitive receptors are shown in Table 3.2.

Table 3.2 - Noise Abatement Criteria (Hourly A-Weighted Sound Level-Decibels [dBA leq-h])

Activity Category	dBA Leq-h	Description
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if that area is to continue to serve its intended purposes.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
C	72 (Exterior)	Developed lands, properties, or activities not included in Category A or B above
D	--	Undeveloped Lands
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

As a result of the project, increased traffic is anticipated. The closest noise-sensitive receptors in the project area include approximately 30 mobile homes on the northeast side of the Cottonwood Village Community and a few residences on Agua Fria Street, about 500 feet south of the proposed action. The land between the Santa Fe River and NM 599 is vacant. The mobile homes in Cottonwood Village are the closest noise sensitive residential development to the proposed action. The proposed South Meadows Road extension comes within approximately 200 feet of the southeast corner of the development for a very short distance. Beyond this point, the proposed roadway maintains a significant distance from Cottonwood Village and other development.

The FHWA’s *Traffic Noise Model (TNM) Look-up Tables*, were consulted to evaluate noise impacts from this project and indicate that noise from 1000 vph at a speed of 40 mph and a distance of 200 feet would be 51 dBA, which is well below the NAC for residential land uses (FHWA-PD-98-047). The traffic on South Meadows Road is not predicted to be greater than about 500 vph in 2025. Consequently, the noise generated by projected traffic on South Meadows Road is not anticipated to cause any adverse noise impacts to residents in Cottonwood Village. At 500 feet in distance from the proposed roadway, the additional residences along Agua Fria Road are also not expected to experience any adverse noise impacts due to the extension of South Meadows Road.

Additional noise studies in the area include a “noise contour” study completed by Santa Fe County in 2000. The study showed that traffic noise levels would reach 65 dBA at a distance of approximately 300 feet from the edge of NM 599 (Taschek Environmental Consulting, 2000). The purpose of the study was to provide information that would discourage noise sensitive development from locating in this high noise zone along the highway, without appropriate

mitigation. A noise wall was previously constructed along NM 599, as part of that project, to abate noise on the west side of Cottonwood Village.

There are no sensitive receptors or anticipated noise impacts on BLM Land.

3.3.6.2 Construction Noise

During construction of the project, noise levels will often be greater than normal in adjacent areas. However, construction work normally occurs during daylight hours and for short or intermittent periods, which make the noise levels more tolerable.

All of the land adjacent to the proposed South Meadows Road extension is undeveloped therefore direct impact from construction noise will be minimal.

There are no noise-sensitive receptors on BLM land therefore impacts from construction noise are not anticipated.

3.3.7 Utilities

Abasto Utility Locating Company conducted a preliminary evaluation of the existing utilities in the study area. The bulk of the existing utilities are located in the area of the South Meadows and Agua Fria Street intersection. Utilities identified in the area of the intersection include natural gas, underground and overhead power, water, sanitary sewer, storm drain, streetlights, traffic signals, and communications lines. There are also telephone pedestals and conduits that are vacant which were installed for future use. There were no visible signs of Cable TV in the area and no utilities exist or will be placed within the right-of-way.

North of the Santa Fe River, there are very few utilities. There is a sanitary sewer line that crosses south to north and an underground communications line that crosses east to west. There is also an east to west power line in the project area.

Utility operators will be notified of the project and work within utility corridors will be coordinated to avoid disruption of services. BLM will be notified in coordination with utility operators if work is being done on utility corridors located on BLM land.

3.3.8 Water Quality

3.3.8.1 Surface Water

Currently the study area drains from north to south, with flows eventually working their way into the Santa Fe River. Drainage patterns north of the Santa Fe River towards the mid-central portion of the study have been interrupted by excavation/mining activities. The recently constructed improvements to South Meadows south of Agua Fria have provided for a storm drainage system, with curb inlets that capture roadway and roadside flows, which are then conveyed to the Santa Fe River by means of a storm drain trunk line and outfall pipe. The outfall pipe (reinforced concrete pipe) was extended to the Santa Fe River as a part of the construction of South Meadows from Rufina Street to Agua Fria Street.

The proposed action would provide for curb inlets south of the river (bridge) to capture drainage flows, which would then be directed to the existing trunkline. Drainage flows north of the river would be carried along the roadway ditches, and would eventually be directed into the Santa Fe River by means of rundowns; rundowns would need to provide for erosion protection.

Proposed construction activities would involve the discharge of dredged or fill material into the Santa Fe River, a jurisdictional waters of the United States, and subject to regulation under the provisions of Section 404 of the Clean Water Act (CWA).

Consequently, construction of the project would require a permit issued by the US Army Corps of Engineers (USACE). As presently conceived, construction work within the river would be authorized under the terms and conditions of Nationwide Permit (NWP) #14, Linear Transportation Crossings. State 401 Water Quality Certification from the NMED would also be required for this project. Coordination with the USACE is underway and will be completed prior to final design.

Because more than one acre of land would be disturbed, a storm water pollution prevention plan (SWPPP) would be required under the National Pollutant Discharge Elimination System (NPDES) of the CWA. The SWPPP ensures that best management practices are employed both during and after construction to prevent pollutants in storm water runoff from entering waters of the U.S. This permit also requires that concrete, asphalt, and other such materials be properly disposed of and that permanent stabilization measures, and permanent storm water management measures be implemented after construction to minimize pollutants in storm water runoff from entering these waters.

Proposed BLM land will be included in the SWPPP permitting process and all requirements will be adhered to on BLM land.

3.3.8.2 Groundwater

Groundwater flow in the project area may be expected to follow the topographic slope (to the southwest), with depth to groundwater variable. Existing drainage patterns will be maintained by the project and impacts to the groundwater are not expected. Appropriate water pollution, erosion, and sedimentation control measures will be implemented. The contractor will be required to take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. All materials being removed and/or disposed of by the contractor will be done in accordance with applicable state and federal laws so as not to degrade ambient water quality.



Santa Fe River Looking South Showing Existing Storm Drain Outfall

Appropriate control measures will be fully implemented on BLM land.

3.3.8.3 Floodplains

The project area includes the Santa Fe River floodway. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the area identifies land along the Santa Fe River as within Zone X. FEMA describes Zone X as: “areas of 500-year flood; areas of 100-year flood with average depths of less than one-foot or with drainage areas less than one square mile; and

areas protected by levees from 100-year flood.” The remainder of the project is located in an area determined to be outside the 500-year floodplain.

EO 11988 regarding floodplain management requires that any potential impacts to floodplains be studied, assessed, and identified to reduce the risk of flood loss; minimize the impact of floods on human safety, health, and welfare; and restore and preserve the natural beneficial value served by floodplains. Project planning will ensure that construction will be compatible with floodplain areas.

The proposed BLM land is located outside the 500-year floodplain.

3.3.9 Visual Quality

Scenery is the aggregate of features that give character to the landscape and is an integrated part of ecosystem management. All lands administered by the BLM are managed to achieve some level of visual or scenic quality.

The BLM uses a Visual Resource Management (VRM) system to identify and manage scenic values on federal lands administered by the agency. The VRM system includes a visual resource inventory, which classifies visual resources on BLM land into one of four categories (Class I, II, III, or IV), and sets management objectives through the RMP process. The inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. The manner in which the four visual resource inventory classifications are determined is explained in BLM Handbook H-8410-1, *Visual Resource Inventory* and Handbook H-8431-1, *Visual Resource Contrast Rating* (BLM 1986). In addition to inventory data, the VRM classes can reflect management considerations.

Each VRM class describes a different degree of modification allowed in the basic elements (form, line, color, and texture) found in the predominant natural features of the landscape. Classes I and II contain the most valued visual resources. Class I, the most highly valued and visually sensitive, is assigned to those areas in which planning decisions have been made to maintain a natural landscape. Classes II, III, and IV are assigned based on a combination of scenic quality; sensitivity level; distance zones; and, where necessary, management considerations. Class III contains those with moderate values and Class IV contains the least valued visual resources. Table 3.3 provides additional information regarding the management objectives for the various VRM classes.

Table 3.3 - VRM Classes and Management Objectives

BLM - Visual Resources Management Class	Management Objectives
Class I	Provides for natural ecological change but does not preclude very limited management activities. Level of change should be very low and must not attract attention.
Class II	Retain the existing character of the landscape. Management activities may be seen, but should not attract the attention of casual observers.
Class III	Partially retain existing character of the landscape. Level of change should be moderate but not dominate the casual observer’s view.
Class IV	Provides for major modification of the existing character of the landscape. Level of change can be high.

The Taos Field Office has not classified the South Meadows project area for visual resources through the RMP. Where there are no RMP approved objectives, interim VRM classes will be developed using the guidelines in Handbook H-8410-1, except the inventory will be limited to the area affected by the project and the VRM classes will reflect the interim management class recommendation(s).



South Meadows looking north with Santa Fe River in background



Facing east with the Santa Fe River to the south



Facing northwest looking at private fence with Cottonwood Village to the west



Facing west with Cottonwood Village privacy wall to the north

A visual resources field inventory was conducted on June 7, 2004 (Taschek Environmental Consulting). Based on the field survey at the locations of interest, the South Meadows project area would qualify under BLM criteria as Class III. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the causal observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

3.3.9.1 Visual Impacts Assessment

No Action

There would be no impacts to visual resources should the proposed project not go forth.

Proposed Action

The proposed action would be compatible with the existing conditions and with the BLM's Class III interim management class recommendations. The proposed road would be linear and smooth but the dark color of pavement would have a moderate contrast with the mostly brown colored existing landscape. The green color of the vegetation along the new road would also be replaced with the black color of the road as well as the color of the road shoulders and pedestrian path. Planting of trees along the road will be a part of the revegetation of the disturbed areas. This would help minimize erosion and lessen the visual impacts from road construction. Recontouring of disturbed areas would probably also be necessary. After a year of vegetation reestablishment, the impacts to visual resources would be minor. However, extending South Meadows Road will provide incentive to permanently increase visitor use within the project area. On BLM lands this would result in more vehicles and pressures placed upon the land from various and increased recreational activities. Vehicle traffic is noticeable from the surrounding area. Increased law enforcement may be necessary to prevent degradation and deterioration of the viewshed.

Action Alternatives

Alternatives A, B, and C would not be significantly different than the Proposed Action.

3.3.10 Soils

The soils of the project area are found within the Pojoaque Rough Broken Land Association (Folks 1975). Soil descriptions for the South Meadows project area were obtained from the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Surveys for Santa Fe County (1975). These are listed in Table 3.4.

Impacts to soils would primarily consist of disturbances and possible erosion during construction. These potential impacts would be minimized through the NPDES permit process and other contractual requirements to control erosion and sedimentation. A SWPPP will be prepared for the site to minimize erosion during and after construction.

BLM land will be included under the SWPPP prepared for the project.

Of the seven soil types classified (USDA and NRCS, 1975) for the South Meadows project area, none of the soils would support prime farmland.

Table 3.4 - Santa Fe County Soils Descriptions

Map Symbol	Soil Name	Description
(Bg) (BH)	Bluewing gravely sandy loam	0-5% slopes, rapid permeability, medium runoff, moderate erosion hazard. Uses: irrigated pasture, wildlife habitat, and water supply.
(Cf) (CG)	Cerrillos fine sandy loam	0-5% slopes, moderate permeability, medium runoff, moderate erosion hazard. Uses: range, wildlife habitat, community development, and water supply.
(Ch)	Cerrillos find sandy loam	5-10% slopes, moderate permeability, medium runoff, moderate to severe erosion hazard. Uses: range, wildlife habitat, community development, and water supply.
(Fe) (FF)	Fivemile loam	0-5% slopes, moderate permeability, medium runoff, moderate erosion hazard. Uses: range wildlife habitat, and water supply.
(Pa) (PB)	Panky fine sandy loam	0-5% slopes, slow permeability, medium runoff, moderate erosion hazard. Uses: range, wildlife habitat, and water supply.
(Pm) (PN)	Pojoaque rough broken land	9-25% slopes, moderate permeability, rapid runoff, severe erosion hazard. Uses: range, community development, wildlife habitat, and water supply.
(RH)	Riverwash	Arroyos and stream channels, sand, gravel, cobblestone, water. Uses: water supply and gravel.

3.3.11 Wilderness

There are no wilderness areas or wilderness study areas in the vicinity of the proposed action.

3.3.12 Vegetation

A biological survey was completed on December 16, 2003. The survey area included necessary land to accommodate all original alternatives. The plant community/vegetation association predominant in the project vicinity is Juniper Savanna, which is ecotonal between Coniferous and Mixed Woodland and Plains-Mesa Grassland (Dick-Peddie, 1993). Scattered trees of one-seed juniper (*Juniperus monosperma*) dominate this habitat.

The majority of the area is relatively flat. The surveyed area includes numerous roads and is used by all-terrain vehicles. The southeastern portion of the area includes the proposed location where South Meadows Road will cross the Santa Fe River.

Vegetation is of native species. Dominant grass species include blue grama (*Bouteloua gracilis*), Indian ricegrass (*Oryzopsis hymenoides*), perennial muhlenbergia (*Muhlenbergia* sps.), and sand dropseed (*Sporobolus cryptandrus*). Several shrub species were also located in the surveyed area and include big sagebrush (*Artemisia tridentata*), four-wing saltbrush (*Atriplex canescens*), rabbitbrush (*Ericameria nauseosa*), and winterfat (*Eurotia lanata*). Tree species are limited to an area of cottonwoods in the south central portion of the surveyed area, a few scattered juniper trees, and two coyote willow trees to the west.

There are numerous other annual and perennial forb species that include Russian thistle (*Salsola kali*), tree cholla (*Opuntia imbricata*), prickly pear (*Opuntia polyacantha*), yucca (*Yucca glauca*), and many other species.

Some native vegetation will be permanently lost due to construction of the South Meadows Road extension. However, there were no threatened or endangered species within the survey area. No listed noxious weeds were found within the project area.

Within the BLM portion of the project corridor, there were no threatened or endangered plant species and no state listed noxious weeds. Vegetation will be restored within the project area. To the sides of the road within the right-of-way boundary, vegetation will be preserved as much as possible.

3.3.13 Wildlife

The native vegetation and undeveloped nature of the project and surrounding area makes good habitat for native wildlife. Wildlife species expected to inhabit the area include rabbits (*Lepus* spp. and *Sylvilagus auduboni*), coyotes (*Canus latrans*), and numerous smaller mammals and reptiles (field mice, small lizards, and snakes). Ravens (*Corvus corax*) also frequent this area. Animal species seen during the biological survey included ravens and ants. Several small, unused animal burrows were also present. No other physical signs of wildlife were found during the biological survey.

It is possible that losses of certain individuals of smaller soil-inhabiting species that are less mobile or certain burrowing animals could occur due to construction activities but this project is not expected to significantly alter animal populations or habitat in the general region. However, continuous open land would be compromised due to construction of the new road and traffic. This may cause animals to relocate to a more suitable foraging and nesting area.

Fragmentation of habitat may compromise some of the animals foraging and burrowing areas on BLM land, which may alter the animal populations or habitat in the general region.

3.3.14 Threatened and Endangered Species

The United States Fish and Wildlife Service (USFWS), and the New Mexico Energy, Minerals, and Natural Resources Department (NMEMNRD) were contacted regarding threatened and endangered species. As well as evaluation of the list\ of rare plants provided by the New Mexico Rare Plants Technical Council. Threatened and endangered species surveys were completed on December 16, 2003. A list of potentially occurring target species was compiled for the project area, based on the local biotic community and the habitat requirements of the species. The results of this list are shown in Table 3.5 and Table 3.6. The tables below only lists the potentially occurring target species. For the entire County Species List please refer to Appendix B.

Table 3.5 - Potentially Occurring Sensitive Plant Species

Common Name	Scientific Name	Status
Tufted Sand Verbena	<i>Abronia bigelovii</i>	State Species of Concern
Santa Fe milkvetch	<i>Astragalus feensis</i>	State Species of Concern
Flint Mountains milkvetch	<i>Astragalus siliceus</i>	State Species of Concern
Sapello Canyon larkspur	<i>Delphinium sapellonis</i>	State Species of Concern
Springer's blazing star	<i>Mentzelia springeri</i>	NM Species of Concern
Santa Fe cholla	<i>Opuntia viridiflora</i>	USFWS Species of Concern, State Endangered
Weatherby's spike moss	<i>Selaginella weatherbiana</i>	USFS Sensitive

(USFS – United State Forest Service)

Two plant species considered to be rare by the New Mexico Rare Plants Technical Council, listed in Table 3.4, were identified as having possible suitable habitat in the project area. These species are the Santa Fe cholla (*Opuntia viridiflora*) and the Santa Fe milkvetch (*Astragalus feensis*). Neither of these species is afforded protection under the Endangered Species Act but is included in the threatened and endangered species survey to ensure no further reductions in their population would occur as a result of this project.

The project area does provide suitable pass-through and summer habitat for migrating bird species. No migrating birds or nests were seen during the biological survey and no burrows suitable for burrowing owls were found. Because the biological survey was completed in December, outside of the yearly migration period, no migratory bird species were expected. However, if grading for the roadbed, tree removal, or any other ground disturbance is to occur between March and September, it is recommended that a migratory bird survey be completed prior to this construction.

No suitable habitat for any threatened or endangered species and no critical habitat was located in the project area. No threatened, endangered, or rare species were seen during the survey. Therefore, no impacts to these species are expected as a result of the project.

Table 3.6 - Potentially Occurring Sensitive Animal Species

Common Name	Scientific Name	Status
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	USFWS Species of Concern
Baird's sparrow	<i>Ammondramus bairdii</i>	USFWS Species of Concern

(USFWS-United States Fish and Wildlife Service)

Within the BLM portion of the project corridor, no threatened or endangered plant or animal species were located and no impacts are expected as a result of this project.

3.3.15 Invasive and Non-native species

There were no invasive or non-native species found within the project area during the December 16, 2003 vegetation survey.

3.3.16 Wetlands and Riparian Areas

A wetland delineation of the Santa Fe River arroyo was completed on December 16, 2003 in accordance with the COE 1987 Manual. Hydrologic characteristics are present in the Santa Fe River arroyo; however, there is no vegetation in the area of impact. Thus no wetlands are present in the Santa Fe River at this location. No other wetlands were found in the surveyed area. However, the Santa Fe River arroyo is considered a riparian zone.

There are no wetlands present within the BLM portion of the project corridor.

3.3.17 Wild and Scenic Rivers

There are no wild and scenic rivers located anywhere near the project area.

3.3.18 Cultural Resources

A Class III archaeological clearance inventory was completed for the entire project site in March, 2004. The inventory resulted in 13 isolated occurrences of cultural material and two previously undocumented archaeological sites. One of these archaeological sites, a small aboriginal and historic artifact scatter, is considered in the survey report to have no further data potential because it was largely destroyed during previous construction activity and is no longer eligible for the National Register of Historic Places. The other site, a historic wagon road, is located on BLM land and within the proposed alignment. This site is eligible to the National Register of Historic Places. It is recommended that this site be clearly marked or fenced prior to the initiate of construction and that an effort be made to minimize intrusion in this area. A Spanish Colonial residential location was also relocated. This site is a short distance southeast of the project area, and is outside of the area of effect for the road extension project.

Provided the above stipulation for the wagon road site is complied with, cultural resource clearance is recommended for the proposed South Meadows Road extension project with a finding of no adverse effect to cultural resources. These recommendations are subject to coordination with and concurrence by the BLM and New Mexico State Historic Preservation Officer (SHPO). Coordination will be completed prior to final environmental clearance for this project.

The Agua Fria Traditional Historic Community is located east of the project area. No specific areas of potential traditional cultural significance have been identified within the project area. Consultation with the Kiowa Tribe of Oklahoma, Pueblo of Cochiti, Comanche Indian Tribe, Hopi Tribal Council, Pueblo of Isleta, Jicarilla Apache Nation, Pueblo of Nambe, Navajo Nation, Pueblo of Pojoaque, Pueblo of San Ildefonso, Pueblo of Santo Domingo, Pueblo of Tesuque, and Pueblo of Santa Clara has been initiated. No adverse comments have been received regarding the project.

In the event of unexpected discovery of cultural materials, work should cease immediately in the area of the discovery until a qualified archaeologist examines the materials and the BLM archeologist is notified.

Within the BLM proposed land, the wagon road site is the only identified archaeological site. It is known as a BLM category II property. BLM has requested avoidance of this site as a stipulation for using BLM land for the proposed roadway alignment. The Spanish Colonial residential site, which was relocated, falls outside of the project area.

3.3.19 Hazardous Materials

Contamination of soil or water with hazardous materials is a serious concern for potential construction projects due to the liability associated with clean up, as well as health and safety considerations. In order to gain more information on potentially contaminated properties, an initial site assessment (ISA) for hazardous materials was performed for the proposed project area. This included a review of local, state, and federal environmental files pertaining to sites within the study area. The environmental file review resulted in the identification of several isolated instances of dumping within the general project area. The findings resulting from a records review, a site visit, and interviews with persons familiar with the property include:

- ? An abandoned storage tank of unknown use or origin is located between alignments C and C2.
- ? Two empty 55-gallon drums and a 5-gallon drum with used oil are located within the project area.
- ? A piece of abandoned oil-filled electrical equipment has been damaged and oil has leached into the soil.
- ? Numerous instances of disturbed soil, both piles and excavations, are scattered throughout the project area.
- ? Numerous instances of dumped domestic and construction wastes, and abandoned vehicles were observed and scattered throughout the project areas.

None of these features appear to be immediately within the proposed alignments and, except for the oil release from the electrical equipment, no direct evidence of environmental impacts from them was observed. If project activities involve removing or disturbing any of these features, accepted measures for handling and disposing of any hazardous materials discovered should be followed.

No potentially contaminated properties were identified on the BLM land proposed for this project.

3.3.20 Mineral Resources

There are no current mining claims or known mining resources within the project areas.

3.3.21 Areas of Critical Environmental Concern

There are no Areas of Critical Environmental Concern (ACEC) in the vicinity of the proposed action and no impacts to ACEC's will occur.

3.3.22 Construction Impacts

The extension of South Meadows Road is a new facility and will require minimal traffic control. During construction, access to the Cottonwood Mobile Home Park will be maintained. Situations may occur where only one lane remains open for a short period of time. Flagmen would be utilized as necessary, and access to residences would be maintained at all times. A

detailed traffic control plan will be developed in accordance with the Manual on *Uniform Traffic Control Devices* (2000).

As discussed in previous sections, there may be some short-term adverse effects on air quality due to construction such as smoke, dust, and exhaust emissions. The control of particulate matter emanating from various construction activities will be in accordance with applicable NMED regulations. During construction of the project, noise levels will often be greater than normal in adjacent areas. An attempt to perform most work during daylight hours will minimize the impact of the higher noise levels.

The following is a table listing all of the permits that would be required for the project.

Table 3.7 - Agency Permits

Agency	Permit	Date of Application
NMED	State 401-Water Quality Certification	June 15, 2004
USACE	Section 404	June 15, 2004
Santa Fe County	Development for road construction	June 15, 2004

A SWPPP will be developed and implemented for the project. This will minimize the pollutants distributed as a result of the construction project.

All mitigation measures taken to reduce construction impacts will include the BLM land proposed for this project.

3.4 INDIRECT AND CUMULATIVE IMPACTS OF THE PROPOSED ACTION

Indirect and cumulative impacts result from a proposed action in combination with other, related projects or occur indirectly as part of a chain of events related to the initial activity. Such impacts may develop simultaneously with construction of the project or incrementally over time. A number of other highway projects have occurred in recent years in the vicinity of the proposed South Meadows Road improvements, including the construction of NM 599 in the 1990s, and residential development in Santa Fe County is taking place west of the Santa Fe River in the project area. This development and the supporting infrastructure is part of the community's plans for growth. The indirect and cumulative impacts resulting from the extension of South Meadows Road are not anticipated to exceed the benefits of the transportation project.

Land use along the corridor of the proposed South Meadows Road extension may develop more intensively, as a result of new access to properties that were previously land locked resulting in some cumulative impacts from the project. Growth in this area is anticipated as part of the adopted community plans. Growth in the community would provide economic opportunities for the local residents. The project will facilitate planned growth.

Under the Proposed Action there will be a permanent loss of approximately 8.72 acres which will be additive to the continuing habitat loss within lands continuous with or in close proximity to the South Meadows project area in Santa Fe County. Habitat loss is primarily a result of new road construction (South Meadows Road and NM 599), housing development, and increasing recreation use of public lands.

The South Meadows project will increase access to the project area for recreational purposes through development of new access to both the Santa Fe River arroyo and BLM property. This

will be beneficial for recreational opportunities. However, South Meadows Road will fragment the land causing diminishing effects of open space. The City of Santa Fe and Santa Fe County have planned a system of bicycle, pedestrian, and equestrian trails in the area, including under crossing structures of NM 599. The South Meadows project will implement planned bicycle and pedestrian facilities in the road corridor and accommodate the trail in the Santa Fe River.

Santa Fe has recently experienced difficulties in meeting water demands during peak water usage during summer months. Potential future development adjacent to South Meadows Road could result in an increase in impervious surfaces, such as roads, trails, and sidewalks, which would consequently cause an increase in the rate and volume of runoff. In addition, seepage into the local aquifer could be reduced. Since this area is off the City's water delivery system, additional wells may be drilled. As a result, existing local wells may experience a impairment from drawdown due to a reduction in recharge of the local aquifer.

The Santa Fe River is adjacent to the proposed alignment. As a result, potential future development of lands adjacent to the South Meadows alignment could generate cumulative impacts to Santa Fe River water quality from point and non-point source pollution. These water quality pollutants could be generated from construction and operational activities related to the development and ultimate land use of the private parcels adjacent to the proposed alignment. Point and non-point source pollution generated from future projects could enter the Santa Fe River channel from runoff from impervious surfaces. In addition, it is possible that illegal dumping near the Santa Fe River and proposed alignment could result in indirect effects to water quality.

During the short-term construction phase of the proposed alignment, BMP's such as silt fences, catchment basins for short-term runoff, and water spraying to minimize fugitive dust emissions, would be implemented to minimize pollutants generated from project related activities.

Construction of South Meadows could have beneficial effects on the residents along Agua Fria and in Cottonwood Village, through improved access. South Meadows could also provide opportunities for economic development from new commercial activities along the road. A considerable amount of environmental degradation has already taken place in the area of the proposed South Meadows Road extension, from off-road vehicle use, past overgrazing, illegal dumping, and construction of graded access roads. Consequently, the projects effects will cumulatively continue the trend of impacts to the natural environment in this area as a result of loss of habitat and fragmentation of open space from the road. The proposed road project will, however, include measures to control erosion and manage stormwater. The project will likely stimulate more orderly development in the area, which will replace the random environmental degradation has already taken place in the area.

Construction of the South Meadows road will impact soils. Because the soils are moderate to highly erodible, construction could temporarily degrade the air quality. Management practices will be implemented during construction to reduce and prevent erosion and dust generation.

Traffic forecasts assumed that Santa Fe County will experience sustained growth throughout the planning period. This growth will coincide with an increase in traffic and land development within the entire county. The project analysis coincides with this forecast. The extension of South Meadows Road will provide an additional route connecting traffic between Agua Fria Road and NM 599. This additional route will have some cumulative impacts on the transportation network in the southwestern portion of Santa Fe County. However, traffic

analysis shows this impact to be an overall improvement to the transportation network, including efficiency and safety.

3.5 IMPACTS OF NO ACTION ALTERNATIVE

The No Action alternative for this project would not have environmental impacts to the .92 miles of the proposed road extension. It would eliminate any adverse impacts in the following areas of environmental concern: socio-economics, visual resources, farmland, air quality, noise, soils, water resources, vegetation, wildlife, threatened and endangered species, wetlands, cultural resources, and hazardous materials.

Indirectly, the No Action alternative would not provide access to the surrounding properties, which would discourage potential construction. Cumulatively, if no access is provided then there will be no additional construction.

The No Action alternative would not provide a means for relieving traffic congestion or provide system connectivity in the southwestern portion of the City of Santa Fe. In addition, existing roads such as Agua Fria, CR 62, and Airport Road would definitely experience increased traffic volume due to further development and expansion of the south side of the City of Santa Fe. Furthermore, traffic traveling on NM 599 would not have additional effective access other than Airport Road, to the south side of Santa Fe. This would result in additional burden on the arterial streets, primarily on Airport Road and Agua Fria.

Socio-economic prosperity is in part linked to system connectivity. Because the No Action alternative would not provide additional effective system connectivity in the southwestern portion of the City of Santa Fe, the opportunity for economic development from new commercial activities as well as existing commercial operations would be less feasible. In addition, congestion resulting from the lack of system connectivity on existing arterial roads would generate additional health and human safety issues from the increase number of automobile collisions and various other traffic disruptions.

The No Action alternative would prohibit accessibility in the area. Access to NM 599 is currently limited in southwest Santa Fe; the No Action alternative would deny any other means to access this route on the south side of the City. The Cottonwood Mobile Home Park currently is only accessible from Agua Fria Road, choosing the No Action alternative would eliminate an alternative access for this development. State and federal lands located in the area also have insufficient access to property under their jurisdiction. The No Action alternative would limit access to these lands, which would prevent the management agencies to meet the best and highest land use possible.

There would be no impacts to visual resources should the proposed project not go forth.

Implementation of the No Action alternative would forgo the opportunity of executing a project that would eliminate most future problems which would result in congestion on Agua Fria, CR 62 and Airport Road.

4.0 ENVIRONMENTAL COMMITMENTS TO MINIMIZE POTENTIAL ADVERSE EFFECTS

To minimize the adverse effects from the extension of South Meadows Road, the following environmental commitments have been established. These mitigation measures will be performed on all lands disturbed by the project, including the BLM land.

4.1 MITIGATION MEASURES DURING CONSTRUCTION

Erosion Control/Water Quality: Sedimentation control measures will be implemented in the contract and construction plans and a SWPPP will be prepared by the contractor. Disturbed areas will be restored and stabilized as soon as the construction schedule permits. Specifications for temporary erosion, sedimentation, and water pollution controls will be included in the construction contracts. Best Management Practices (BMP's) to be used include: dust controls, silt fences, wind and sand fences, vegetative buffers and revegetating disturbed land.

Water Quality: During the construction phase of the proposed alignment, BMP's such as silt fences, catchment basins for short-term runoff, and water spraying to minimize fugitive dust emissions, would be implemented to minimize pollutants generated from project related activities.

Access: During construction access to residential properties will be maintained at all times. Emergency departments will be kept informed of the project.

Utilities: The contractor will coordinate project activities with utility companies to minimize utility impacts during construction.

Hazardous Materials: During construction, the contractor will be responsible for managing hazardous materials in accordance with state and federal laws.

Wildlife: Structures will be included at regular intervals to allow wildlife to safely pass from one side to the other. Such structures include large culverts, overpasses, underpasses, and tunnels. Because some species of wildlife will not move through confined openings, structures providing connectivity will be as large as possible. The bridge will be as tall as possible and the abutments as far apart as possible to allow safe passage under the bridge and along the riparian corridor adjacent to the stream.

Visual: Planting of trees along the road will be implemented to help minimize erosion and lessen the visual impacts from road construction.

Overall, the contractor will be required to comply with all state specifications concerning air quality permitting and other types of equipment and materials permitting. BLM stipulations issued with the right-of-way grant will require the holder to implement multiple mitigation measures on BLM land. Additionally, BLM would continuously monitor the project through to completion and issue a monitoring compliance decision when all mitigation stipulations have been met. A landscaping plan will be submitted to BLM specifying what specific measures would be taken to revegetate and landscape areas adjacent to the road.

4.2 HAZARDOUS MATERIALS

If contaminated soils or hazardous materials are discovered they will be removed, tested, and disposed of according to NMED guidelines and regulations. Specific BMP's to be used include: chemical spill prevention and control, the maintenance, onsite, of material safety data sheets for all stored chemicals used in construction, general vehicle maintenance onsite, and general construction site waste management.

4.3 U.S. ARMY CORPS OF ENGINEERS PERMITS

A Section 404 permit will be obtained from the USACE prior to construction. The requirements of the permit will be followed.

4.4 CULTURAL RESOURCES

Final coordination with the SHPO and concurrence regarding the recommendations in the cultural resource report will take place prior to final environmental clearance. As requested by the BLM, measures such as fencing will be employed to prevent intrusion into site LA 138370 (the wagon road site). If new cultural resources are discovered during construction, work will temporarily cease, and appropriate measures will be taken in coordination with the SHPO.

4.5 MIGRATORY BIRD TREATY ACT COMPLIANCE

If construction activities involving the removal of trees are expected to occur between March and August, a migratory bird survey will be completed. If the survey identifies nesting birds protected under the Migratory Bird Treaty Act, they will be removed or treated in accordance with the permit requirements of the USFWS.

5.0 CONSULTATION AND COORDINATION

5.1 AGENCY COORDINATION

Public agencies, private organizations, and interest groups were contacted as part of the project development process. Contacts were made with representatives of the following agencies and organizations:

- ? US Fish and Wildlife Service
- ? US Army Corp of Engineers
- ? U.S. Bureau of Land Management
- ? U.S. Environmental Protection Agency
- ? NM Energy, Minerals, and Natural Resources Department
- ? NM Department of Game and Fish
- ? NM Environment Department
- ? NM State Historic Preservation Office
- ? NM Commissioner of Public Lands
- ? Santa Fe County
- ? City of Santa Fe

An initial mailing was sent to public agencies to notify them of the upcoming project and solicit input on potential issues of concern. Table 5.1 summarizes the written responses received from the agencies contacted. In general, all of the agencies were in support of the project. As outlined below, some agencies included special recommendations or requirements. The actual correspondence with the agencies is included in Appendix A. All of the issues and concerns raised were included in this investigation.

5.2 PUBLIC INVOLVEMENT

The general public and interested groups were given a chance to provide input into the project. Included in this process were two public meetings. Prior to both meetings, display notices were published in the Santa Fe New Mexican, flyers were posted in several locations, and over 500 notices were directly mailed to concerned citizens.

The first public meeting was held on January 15, 2003. Approximately 25 people attended the meeting with a variety of concerns and questions. The second meeting was held on February 26, 2004. Approximately 20 people attended to ask questions and provide input. A complete

summary of both of the public meetings is included in Appendix A. All issues and concerns were addressed to the degree possible through design decisions and/or this environmental document.

A public hearing may be held after the EA is released and made available for public review. Any comments received will be addressed and incorporated into the findings and/or follow-up actions as appropriate.

Table 5.1 - Federal, State, and Local Agency Correspondence

Agency	Response Summary
U.S. Fish and Wildlife Service	Provided list of threatened and endangered species in Santa Fe County. Recommends actions that minimize habitat fragmentation for all species.
U.S. Department of Agriculture NRCS	Requires floodplain preservation, avoidance of wetlands, and location of cultural resources.
U.S. Department of the Army, COE	Requires compliance with Section 404 permit requirements.
New Mexico Environment Department	Requires NPDES permit coverage including SWPPP implementation.
New Mexico Commissioner of Public Lands	Requests at least one access point for state trust land.
Santa Fe County	Recommend two lanes only, extensions to Airport Road, and an off the road trail within ROW.
Santa Fe County Sheriff's Department	Proposed project will improve emergency response.
Santa Fe Watershed Association	Recommend clear-span river crossing and minimum road distance along river.
Santa Fe Public Schools	No impact expected.
El Camino Real River Connection	Recommends river crossing be sensitive to historic nature, the inclusion of a multi-purpose path, and the restriction of ATV's.

5.3 LIST OF PREPARERS

Taschek Environmental Consulting
8901 Adams St NE Suite D
Albuquerque, NM 87113

Southwest Environmental Resources LLC
PO Box 6841
Santa Fe, NM 87502

6.0 LIST OF REFERENCES

- BLM 1986a. Visual Resource Inventory, BLM Manual Handbook H-8410-1. January 17, 1986.
- BLM 1986b. Visual Resource Contrast Rating, BLM Manual Handbook H-8431-1. January 17, 1986.
- Bureau of Land Management and U.S. Department of Interior, “*Taos Resource Management Plan*,” 1988.
- City of Santa Fe, “*City of Santa Fe Master Plan*,” May 2002.
- Dick-Peddie, William A., “*New Mexico Vegetation, past, present and future*”, University of New Mexico; Press, 1993.
- Dick-Peddie William A., “*Coniferous and Mixed Woodland and Plains-Mesa Grassland*,” University of New Mexico: Press, 1993.
- Executive Order 12898, “*Environmental Justice*,” *Federal Register* vol 60, no. 125.
- Folk, James J. “*Soil Survey of the Santa Fe Area, New Mexico*. USDA Soil Conservation Service, Washington, D.C.
- Federal Highway Administration. “*FHWA Traffic Noise Model Look-Up Tables*,” Cambridge, MA, 1998.
- Gannett Fleming West Inc., *Location Study Report for South Meadows Road Extension*, Prepared for the City of Santa Fe, New Mexico, 2003.
- New Mexico Energy, Minerals, and Natural Resources Department, *New Mexico Natural Heritage Program* (NMNHP).
- New Mexico Water Quality Commission, “*Water Quality and Water Pollution in New Mexico*,” Santa Fe, NM, 1990.
- New Mexico Department of Transportation, (NMSHTD Environmental Section), *Noxious Weed Management Guidelines*, May 2000.
- New Mexico Department of Transportation, *Location Study Procedures*, August 2000.
- Taschek Environmental Consulting., “*NM 599 Noise Contour Study*, Prepared for Santa Fe County, 2000.
- U.S. Army Corps of Engineers, Environmental Laboratory. (1987). “*Corps of Engineers Wetlands Delineation Manual*,” Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. On-line edition includes 1990 and 1991 updates.
- U.S. Department of Agriculture, Soil Conservation Service, *Soil Survey of Santa Fe, New Mexico*.
- U.S. Census Bureau, *Census 2000*.
- U.S. Forest Service, *Sensitive Plant List*.
- U.S. Fish and Wildlife Service, *Threatened and Endangered Species List*
- U.S. Code of Federal Regulations, Chapter 23 Part 771.
- U.S. Code of Federal Regulations, Chapter 23 Part 772.

APPENDIX A

Agency and Public Coordination

APPENDIX B

Sensitive Plant & Animal Species List