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# RESOURCE MANAGEMENT PLAN

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## INTRODUCTION

This Resource Management Plan (RMP) is a comprehensive plan that establishes the general land management and use determinations for guiding and controlling the future management of the public lands in the Roswell Resource Area.

This plan was prepared in accordance with the requirements of the Federal Land Policy and Management Act (FLPMA) of 1976 and the National Environmental Policy Act (NEPA) of 1969.

This Resource Management Plan addresses the management all uses of the public lands on about 1,490,000 acres in the Roswell Resource Area where both the surface and subsurface estates are in federal ownership and are administered by the BLM (See Table 1). This Plan also presents management for an additional 8.4 million acres of federal mineral estate where the surface is managed by other surface management agencies of the federal or New Mexico State governments, or is in private ownership. In these cases, the leasing of fluid minerals (i.e., oil and gas) is administered by the BLM.

The public lands described above, including the mineral estate, are administered by the Bureau of Land Management through its

Roswell Resource Area Office. The Roswell Resource Area encompasses Chaves County (except for the “bootheel”) and all of Lincoln, DeBaca, Roosevelt, Curry, Quay, and Guadalupe counties in southeastern and east-central New Mexico (see Map 1).

All land and resource uses and activities in the planning area must conform with the decisions and terms and conditions of use described in this plan. Detailed decisions for the implementation of specific actions will be made through activity planning and environmental review that will be completed prior to the implementation of the action. Likewise, the authorization of specific uses will be predicated on conformance with planning decisions and the completion of environmental review.

Descriptions of the affected environment and the environmental consequences of managing public lands in the planning area were previously addressed in the Draft Roswell RMP/EIS and Proposed Roswell RMP/FEIS, and are not discussed in this document.

The Surface Use and Occupancy Requirements (Appendix 1) will be applied, when applicable, to all actions described in this plan.

**TABLE 1  
 ROSWELL RESOURCE AREA LAND OWNERSHIP ACREAGES  
 (ESTIMATED ACRES)**

Area	Total Acres (All Owners)	BLM-Administered Federal Surface and Subsurface <sup>1,4</sup>	Other Surface Owners, Federal Minerals (Oil and Gas) <sup>2,4/</sup>	Other Surface Owners, Minerals (All Min-
Federal Minerals) <sup>2/</sup>				
Roswell Resource Area	13,965,000	1,490,000	8,250,000	8,405,000

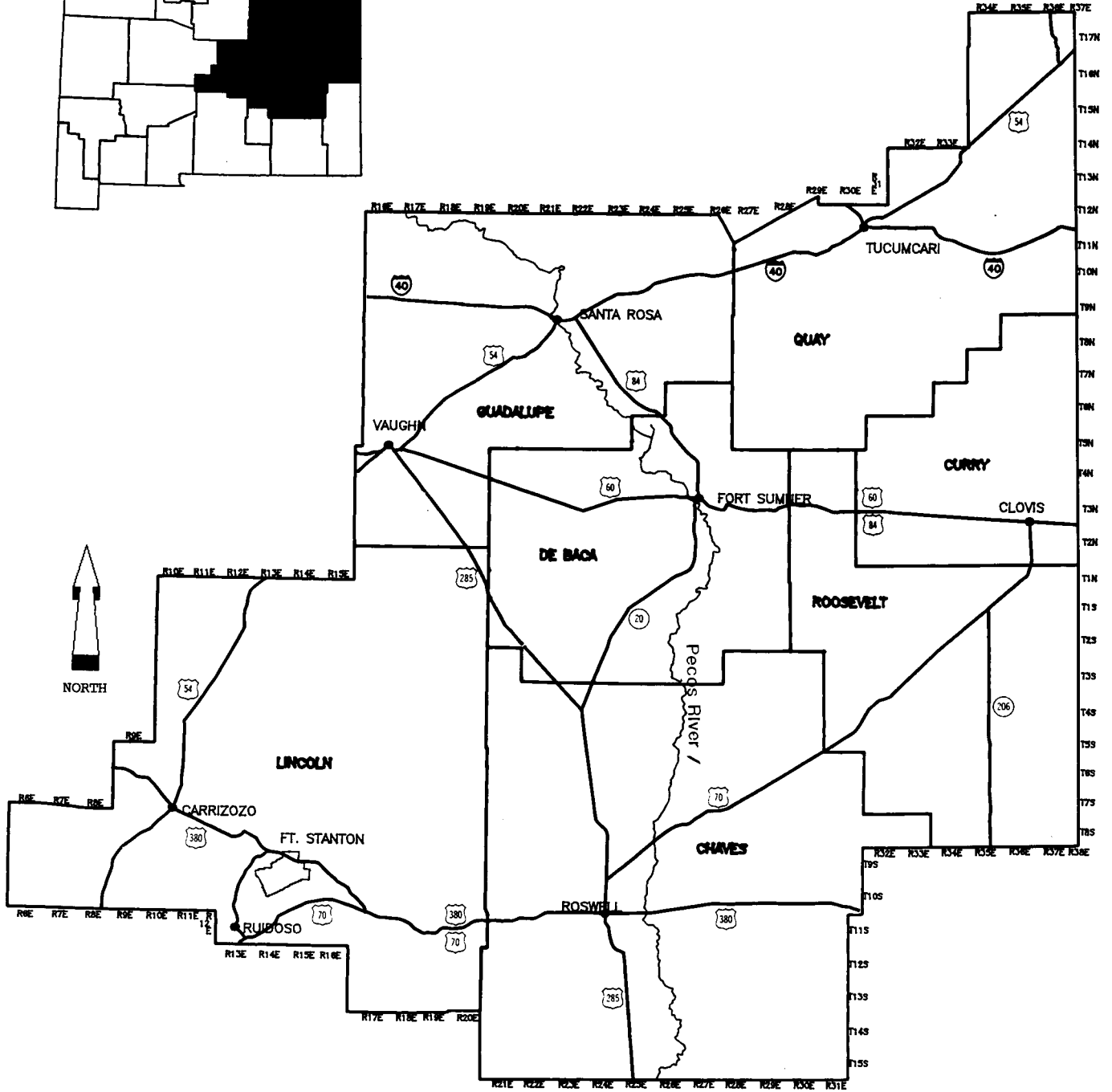
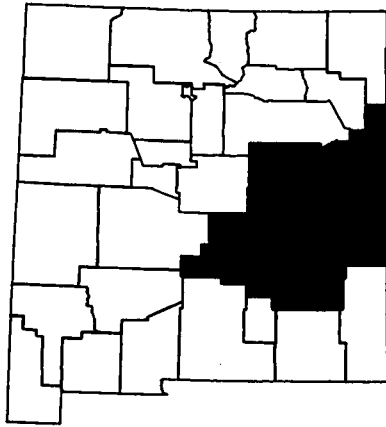
<sup>1/</sup> The federal surface/subsurface category assumes all subsurface acres are oil and gas acres. The acres represented are those where both the surface and mineral estate are owned by the Federal government, and managed by the BLM.

<sup>2/</sup> Both categories of federal minerals describe split estate where the surface is not administered by the BLM. the acreages represented are mineral estate acres, only.

<sup>3/</sup> All acreage numbers are rounded to the nearest thousand.

<sup>4/</sup> To determine total federal oil and gas acres add acreages in columns 2 and 3.

Source: BLM ALMRS and GIS data, 1994.



SCALE  
 1/2" = 13.5 Miles  
 BLM-Roswell District, 1994

MAP 1  
**GENERAL LOCATION MAP**  
 Roswell Resource Area

## PLANNING AND MANAGEMENT DECISIONS

### MINERALS MANAGEMENT

#### Fluid Minerals Management

*Goal: Provide for the leasing, exploration and development of oil and gas resources within the Roswell Resource Area.*

The BLM administers approximately 9,740,000 acres of federal oil and gas mineral estate in the Roswell Resource Area. In this plan:

Approximately 9,316,200 acres (96 percent of the oil and gas mineral estate) will be open to leasing and development under the BLM's standard terms and conditions, the Surface Use and Occupancy Requirements (Appendix 1), the Roswell District Conditions of Approval (Appendix 2), and the Practices for Oil and Gas Drilling and Operations in Cave and Karst Areas (Appendix 3). The discrete components of these requirements will be applied on a case-by-case basis when needed to mitigate impacts or guide use. The Surface Use and Occupancy Requirements will be applied to new leases or as conditions of approval for proposed activities on existing leases, following NEPA analysis. The Practices for Oil and Gas Drilling and Operations

in Cave and Karst Areas will be applied as conditions of approval. The total acreage includes controlled surface use restrictions and approximately 935,000 acres of lesser prairie chicken habitat that will be open to leasing with timing restrictions. See Tables 2 and 3, and Map 2.

As a result of the requirements described above, some leasing stipulations formerly available for use on new leases have been rescinded or replaced. Refer to Table 4 for a list of the remaining leasing stipulations. Leasing stipulations on leases already issued will not be affected.

The BLM must adopt the reasonable and prudent alternatives listed in the Biological Opinion of the U.S. Fish and Wildlife Service. Therefore, approximately 7,000 acres (< 1 percent) of unleased oil and gas parcels within the 100-year floodplain of the Pecos River will not be offered for leasing to protect the water quality of the Pecos River and the habitat of the Pecos bluntnose shiner and the Pecos gambusia. (See Appendix 11 and the Record of Decision.) The BLM will continue to apply mandatory protective measures for oil and gas development on existing leases within the floodplain of the Pecos River.

**TABLE 2**  
**SUMMARY OF OIL AND GAS LEASING RESTRICTIONS BY HYDROCARBON POTENTIAL**  
**(ESTIMATED SURFACE ACRES<sup>1/</sup>)**  
**ROSWELL RESOURCE AREA**

Hydrocarbon Potential	Closed To Leasing	Open To Leasing With NSO <sup>2/</sup>	Open To Leasing With Controlled Surface Use <sup>2/</sup>	Open To Leasing With Timing Restrictions <sup>2/</sup>	Open To Leasing <sup>3/</sup>
H	43,810	29,101	1,320	N/A	5,381,274
M	207,668	150			2,393,004
L	146,611	2,560			1,527,007

<sup>1/</sup> Includes BLM-administered surface and surface administered by other surface management agencies or owners.

<sup>2/</sup> Does not include acreage that may be affected by Surface Use and Occupancy Requirements (Appendix 3).

<sup>3/</sup> Open to leasing under Standard Terms and Conditions, Surface Use and Occupancy Requirements, Conditions of Approval, and Practices for Oil and Gas Drilling and Operations in Cave and Karst Areas.




Source: BLM files, 1994.

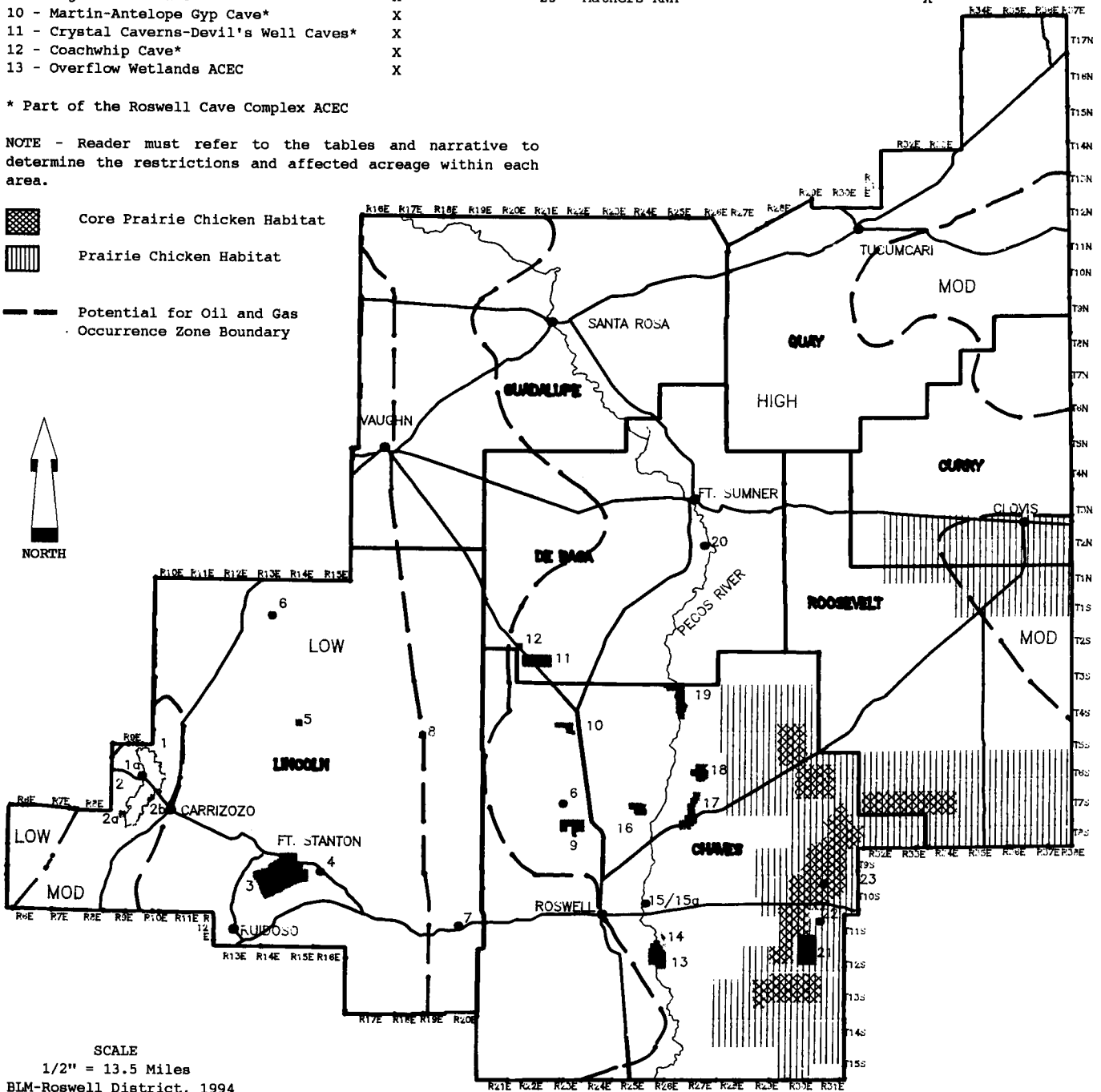
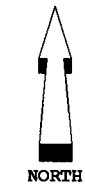
# Areas Stipulated

1 - Little Black Peak WSA	X	14 - Garnsey Bison Kill Site	X
1a - Millrace Cave*	X	15 - Bat Hole Cave*	X
2 - Carrizozo Lava Flow WSA	X	15a- Comanche Hill	Not Applicable
2a - Crockett Cave*	X	16 - Cacklebur Lakes Arch. District	X
2b - Valley of Fires Recreation Area	X	17 - Haystack Mountain OHV Area	X
3 - Fort Stanton ACEC	X	18 - Haystack Butte Arch. District	X
4 - Rio Bonito Acquired Lands	Not Applicable	19 - North Pecos River ACEC	X
5 - Zia Christine Cave*	X	20 - Billy the Kid Recreation Site	X
6 - Alleged UFO Crash Sites	X	21 - Mescalero Sands ACEC	X
7 - Border Hill NNL	X	22 - Mescalero Sands North Dune OHV Area	X
8 - Torgac Cave*	X	23 - Mathers RNA	X
9 - Angora-Corn Cave*	X		
10 - Martin-Antelope Gyp Cave*	X		
11 - Crystal Caverns-Devil's Well Caves*	X		
12 - Coachwhip Cave*	X		
13 - Overflow Wetlands ACEC	X		

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the restrictions and affected acreage within each area.

-  Core Prairie Chicken Habitat
-  Prairie Chicken Habitat
-  Potential for Oil and Gas Occurrence Zone Boundary



SCALE  
1/2" = 13.5 Miles  
BLM-Roswell District, 1994

MAP 2  
OIL and GAS LEASING  
STIPULATION AREAS  
Roswell Resource Area

**TABLE 3**  
**AREAS OPEN TO LEASING WITH CONTROLLED SURFACE USE RESTRICTIONS**  
**ROSWELL RESOURCE AREA**

Areas	Hydrocarbon Potential Estimated Surface Acres		
	High	Moderate	Low
<b>OTHER AGENCY MANAGEMENT:</b>			
Santa Rosa Municipal Airport	320		
Melrose Bombing Range, buffer zone	1,000		
<b>Total</b>	1,320		

Source: BLM files, 1994

**TABLE 4**  
**OIL AND GAS LEASING STIPULATIONS and NOTICES**  
**ROSWELL RESOURCE AREA**

Current Stipulation	Type of Restriction	Feature	Remarks
Roswell 46	Lease Notice	Cave/Karst Occurrence Area	Retain
Roswell 47	Lease Notice	T&E or Sensitive Species (Kuenzler cactus)	Retain
Roswell 51	Lease Notice	Protection of the Sand Dune Lizard	Retain
	NSO	Maintenance of state well-spacing requirements	(new)
	SUOR	Surface Use and Occupancy Requirements will be applied as leasing stipulations	(new)

Key to Abbreviations: NSO No Surface Occupancy; SUOR Surface Use and Occupancy Requirements

Source: BLM files, 1994

**TABLE 5**  
**AREAS OPEN TO LEASING WITH NO SURFACE OCCUPANCY**  
**ROSWELL RESOURCE AREA**

<b>Areas</b>	<b>Hydrocarbon Potential Estimated Surface Acres</b>		
	<b>High</b>	<b>Moderate</b>	<b>Low</b>
<b>BLM MANAGEMENT:</b>			
Alleged UFO Crash Sites <sup>1/</sup>	1,120		2,560
Billy the Kid Recreation Site	80		
Border Hill NNL		150	
Cocklebur Lakes Arch. District	3,000		
Garnsey Bison Kill Site	520		
Haystack Butte Arch. District	3,400		
Haystack Mountain OHV Area	3,520		
Mescalero Sands North Dune OHV Area	1,546		
Mescalero Sands N. Dune OHV Corridor	400		
North Pecos River ACEC	2,120		
Overflow Wetlands ACEC	1,040		
Sumner Lake Tailwater	320		
Valley of Fires Recreation Area	463		
<b>Subtotal</b>	<b>17,529</b>	<b>150</b>	<b>2,560</b>
<b>OTHER AGENCY MANAGEMENT:</b>			
Cibola National Forest			N/A <sup>2/</sup>
Fort Sumner Project and Sumner Lake State Park	11,240		
Lincoln National Forest			N/A <sup>2/</sup>
Two Rivers Reservoir Project	see <sup>3/</sup>		
Tucumcari Project	7		
Ute Lake State Park	325		
<b>Subtotal</b>	<b>11,572</b>		
<b>Total</b>	<b>29,101</b>	<b>150</b>	<b>2,560</b>

Note: Acreage affected by the application of the Surface Use and Occupancy Requirements is not displayed on this table, to avoid double-counting. Because of the nature of the Requirements and their use, areas listed above may also include areas to which the Requirements would be applied. Refer to Table A1-1 in Appendix 1 for estimates of additional acreages that could be affected by the Requirements.

<sup>1/</sup> Two alleged sites.

<sup>2/</sup> Amount of acreage not known.

<sup>3/</sup> Some portions of the Two Rivers Reservoir Project may be subject to “no drilling” requirements. Refer to the text.

Source: BLM files, 1994

**TABLE 6  
AREAS CLOSED TO FUTURE LEASING  
ROSWELL RESOURCE AREA**

Area	Hydrocarbon Potential Estimated Surface Acres		
	High	Moderate	Low
<b>BLM MANAGEMENT:</b>			
Carrizozo Lava Flow and Little Black Peak WSAs <sup>1/</sup>		25,312	
Fort Stanton ACEC			27,622
Mathers Research Natural Area	242		
Mescalero Sands ACEC	7,931		
North Pecos River ACEC	2,080		
Pecos River Critical Habitat <sup>2/</sup>	7,000		
Roswell Cave Complex ACEC	2,654	1,600	640
<b>Subtotal</b>	29,007	26,912	28,262
<b>OTHER AGENCY MANAGEMENT:</b>			
Bitter Lake National Wildlife Refuge	6,320		
Bottomless Lakes State Park	460		
Cibola National Forest			19,178
Gruña National Wildlife Refuge	69		
Lincoln National Forest			99,171
Melrose Bombing Range, core area	6,714		
Salt Creek Wilderness 1,240			
White Sands Missile Range		180,756	
<b>Subtotal</b>	14,803	180,756	118,349
<b>Total</b>	38,610	207,668	146,611

<sup>1/</sup> If not designated wilderness, these areas would revert to multiple-use management and would be closed to oil and gas leasing to protect lava flows and other values.

<sup>2/</sup> From the U.S. Fish & wildlife Service's Biological Opinion. See Appendix 11.

Source: BLM files, 1997



Approximately 31,800 acres (< 1 percent) will be open to leasing, with a No Surface Occupancy stipulation attached to new leases. Refer to Tables 2 and 5, and Map 2. This does not include acreage that may be affected by application of the Surface Use and Occupancy Requirements.

Approximately 392,000 acres (4 percent) will be closed to leasing to protect resources or to support other public uses. See Tables 2 and 6, and Map 2. In these areas, existing leases will continue to be developed on a case-by-case basis, However, once leases terminate, they will not be re-offered for leasing.

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**FIGURE 1**

**NO SURFACE OCCUPANCY STIPULATION**

Maintenance of state well-spacing requirements.

No surface occupancy or use is allowed on the lands described below:

(legal description)

For the purpose of: The lease or portion of a lease for the area described above is issued for the sole purpose of assisting in the orderly development of the federal mineral estate. This lease will be used to maintain state well-spacing requirements on the lands described above. This lease absolutely does not grant surface occupancy or use, and that requirement cannot be waived unless changes are made in a land use plan or plan amendment.

Roswell 52

(Date)

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The Authorized Officer may consider expressions of interest for the leasing of BLM-administered public lands when the sole purpose of leasing is to maintain state well-spacing requirements. This could occur in areas that are closed to leasing (except for wilderness study areas) or open to oil and gas leasing with no surface occupancy, including areas affected by the Surface Use and Occupancy Requirements (Appendix 3). This leasing opportunity could apply to an entire lease

or to a portion of a lease parcel. In this situation, there can be no intention on the part of the nominator to occupy the surface of the lease or portion of the lease. For a lease to be issued, there can be no concerns about impacts to subsurface resources or values resulting from drilling on any unrestricted parts of the lease or on adjacent leases, and surface occupancy or use absolutely will not be authorized. A lease could be issued for a standard term with a no surface occupancy leasing stipulation (See Figure 1).

The BLM will continue to require oil and gas lessees to conduct operations in a manner that will minimize adverse impacts to resources, land uses, and users. To that end, the BLM will continue to apply reasonable mitigation measures. These will typically include, at a minimum, relocating proposed operations by no more than 200 meters or prohibiting new surface disturbance for a period of no more than 60 days. Mitigations of impacts involving moves greater than 200 meters or delays greater than 60 days could result from project-specific NEPA analysis. (Also, refer to the introduction to Appendix 1.)

Requirements that have been issued in Orders or Notices to Lessees (NTL) concerning environmental and other factors associated with the drilling of oil and gas wells will continue to be enforced, as will future orders and NTLs.

In addition to any stipulations appended to a lease, the development of new and existing leases will be further guided by the application of the Roswell District Standard Conditions of Approval (Appendix 2), which will be applied on a case-by-case basis.

Open-top tanks, reserve pits, disposal pits, or other open pits will be required to be equipped to deter entry by birds, bats or other wildlife, and livestock.

The BLM will encourage the use of practices such as off-lease measurement, unit agreements, field development plans, communitization agreements, consolidated

batteries, and other innovative approaches, to reduce the extent of surface disturbance and to mitigate other forms of impacts. These practices must conform with Onshore Oil and Gas Orders 4 and 5, and state requirements.

The construction, maintenance, rehabilitation, abandonment, and closure of all roads subject to BLM jurisdiction will be conducted according to the “BLM-NMSO Road Policy, Standards and Procedures.” Specific practices for implementing this policy are described in Appendix 2. The BLM may monitor use of roads and notify joint-cost-sharing companies when maintenance is needed.

Areas designated as Wilderness Study Areas (WSAs) are closed to leasing as part of the Wilderness Interim Management Policy. Existing leases in WSAs would not be reissued once they expire. Nearly all the acreage in the two WSAs in the Roswell Resource Area is recommended for wilderness designation. If Congress fails to accept the recommendations for wilderness designation and the WSA status is removed, the lands currently in the WSAs would be managed for multiple use under management prescribed in this RMP. If not designated wilderness, future management of the WSAs would be as follows:

- Carrizozo Lava Flow WSA (10,408 acres): Approximately 9,333 acres would be closed to oil and gas leasing to protect the character of the lava flow, which is believed to be one of the most recent in the continental U.S. Scenic, recreational, scientific, vegetation and wildlife values associated with the lava flow would be protected, as well. The remaining 1,075 acres would be open to leasing subject to the Surface Use and Occupancy Requirements, the Practices for Oil and Gas Drilling Operations in Cave and Karst Areas, and the Roswell District Conditions of Approval. Areas designated as Wilderness Study Areas (WSAs) are closed to leasing as part of the Wilderness Interim Management Policy. Existing leases in WSAs will not be reissued once they expire. Even if the WSAs are not designated as wilderness by Congress, all WSAs in the Roswell Resource Area will remain closed to leasing.

- Little Black Peak WSA (14,904 acres): The entire 14,904-acre area would be closed to oil and gas leasing to protect the character of the lava flow, which is believed to be one of the most recent in the continental U.S. Scenic, recreational, scientific, vegetation and wildlife values associated with the lava flow would be protected, as well.

Cultural sites determined to be eligible and potentially eligible to the National Register of Historic Places will be protected from damage by avoidance. If avoidance can not be accomplished, potentially eligible sites will be tested to determine their eligibility and mitigation, such as data recovery, will be required for eligible sites. Coordination and consultation about the treatment of sites will continue between the BLM and SHPO, pursuant to Section 106 of the National Historic Preservation Act.

As a standard practice, ephemeral and perennial drainages and wetland/riparian areas will be avoided as locations for oil and gas related facilities, including drilling locations, production facilities, roads, and pipelines. (Refer to Appendix 1, Streams, Rivers and Floodplains.) Whenever possible, facilities will be confined to existing alignments or locations, minimizing width requirements and maximizing multiple occupancy.

Produced water disposal pits on public lands will not be allowed west of the Pecos River. Additionally, these pits will not be allowed within up to 200 meters of the outer edge of 100-year floodplains, drainages, playas, water wells, or springs throughout the resource area. In all other areas of the Roswell Resource Area, disposal of produced water in lined pits may be permitted on public lands. Produced water disposal will be managed in accordance with Onshore Oil and Gas Order No. 7.

Revegetation of disturbed areas will be required. Reclamation techniques, such as deeper rips, different seed mixtures, mulching, and the application of fertilizer, may be used to enhance the reclamation of pits, roads and pads to provide for maximum ground and surface water protection. The ripping or removal of caliche from roads and pads could be required to enhance reclamation

efforts. Waiver of this requirement will be considered if diligent attempts to revegetate a site have failed and the Authorized Officer determines that further attempts would be futile.

The BLM will continue to process Notices of Intent (NOI) to conduct geophysical exploration on public lands on a case-by-case basis. Geophysical exploration may be an appropriate temporary surface use in areas that are closed to oil and gas leasing or that have restricted surface use, such as no surface occupancy leasing stipulations. The processing of geophysical NOIs will include NEPA compliance. The terms and conditions for NOIs and the conditions of approval for geophysical exploration are listed in Appendix 2. The Surface Use and Occupancy Requirements (Appendix 1) and off-highway vehicle use designations will also be applied to geophysical exploration, when necessary.

The burial of pipelines associated with oil and gas exploration, development, production and transportation is preferred. Pipelines greater than four inches in nominal diameter, all injection lines, and gas lines with a pressure greater than 125 psi must be buried and preferably be constructed of steel. If the use of plastic pipe is approved, the pipe must meet American Petroleum Institute specifications. A waiver of the requirement to bury pipelines will be considered in the following situations:

- The temporary (one year or less) surface installation of plastic pipelines, after considering the length of the pipeline, its proposed location, the potential hazards present (e.g., likelihood of damage by fire or OHV use), the characteristics of the pipe regarding deterioration (including by sunlight), the ASTM or similar specifications for the pipe, the intended use of the pipeline, and other appropriate factors.
- Where rock outcrops at the surface make the burial of a pipeline impractical, such as when unreasonable and unreclaimable surface disturbance would result. Where the pipeline is exposed, painting may be required

in accordance with the painting policy for visual resource management areas (see Appendix 1) and NTL 87-1, New Mexico. Waiver of the requirement for painting will be considered when short distances are involved, when a pipeline is not readily visible because of screening, or in areas that are not visually sensitive.

- Where the surface ownership along the pipeline route is mixed, and the majority of surface ownership is not public. In those cases, the installation of pipelines on public land will conform to the practice to be employed on the remainder of the pipeline, unless special resource management concerns dictate strict adherence to this policy.

Lease notices will be used to alert lessees to potential special requirements on exploration, drilling or production. Lease notices covering the protection of potential cave or karst areas, and the protection of threatened or endangered, or sensitive, plant or animal species will remain in effect. Additional lease notices will be developed as needed.

### **Other Surface Management Agencies**

In some cases, federal minerals in the Roswell Resource Area underlie lands managed by other agencies known as “other surface management agencies.” (See Map 3.) The leasing requirements of other surface management agencies have been included for purposes of disclosure and to provide a complete view of oil and gas leasing in the resource area. The other surface management agencies in the Roswell Resource Area were asked to provide their oil and gas leasing recommendations and leasing stipulations; they are included here without modification. The leasing requirements are described below. The acreages listed refer to federal mineral estate.

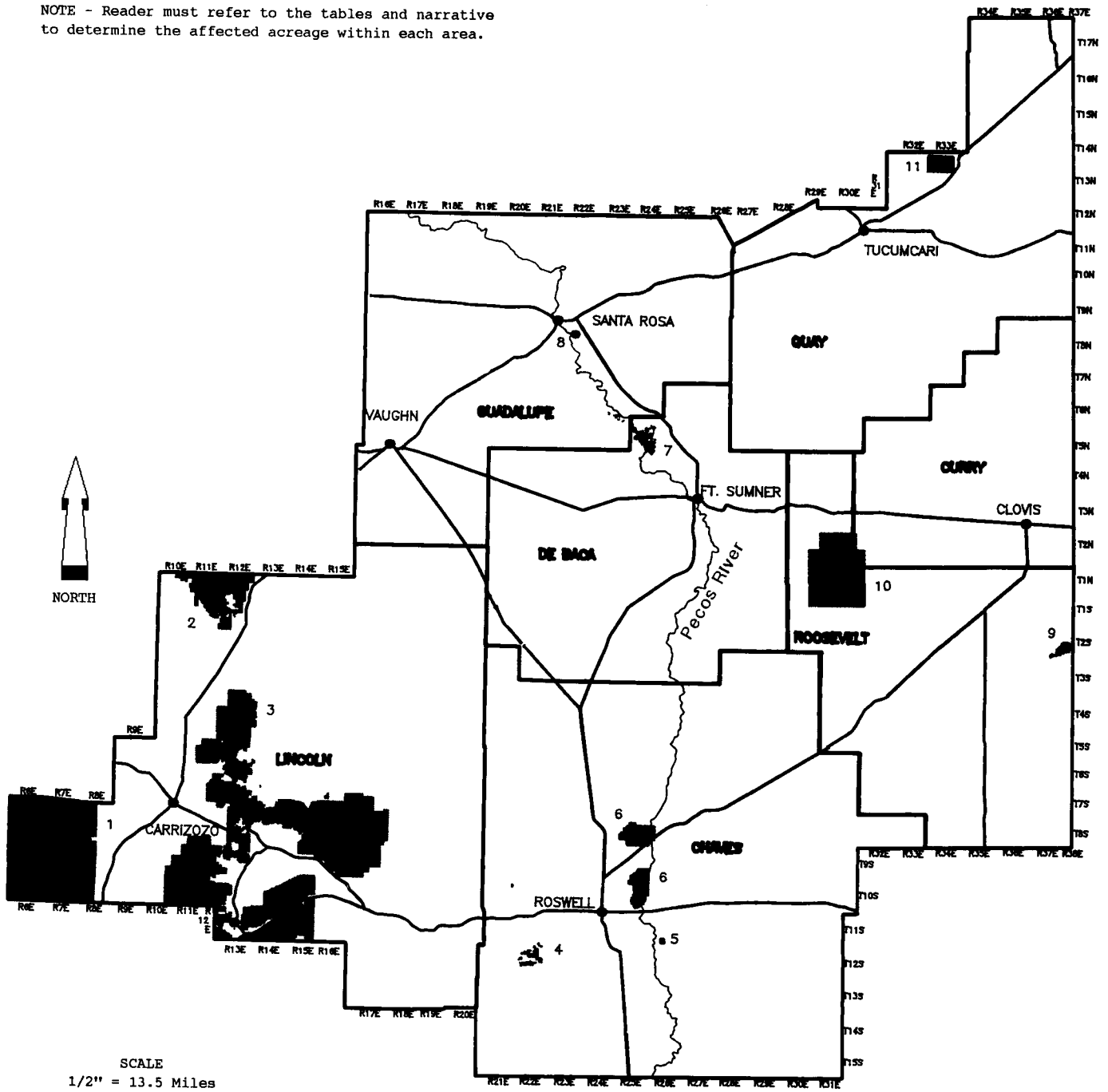
#### *Federal Aviation Administration*

- Consult with FAA prior to approving occupancy at Santa Rosa Municipal Airport (320 acres)

# Surface Management By Other Agencies - Surface Stipulations for Federal Minerals

- |                                 |   |                            |   |
|---------------------------------|---|----------------------------|---|
| 1 - White Sands Missile Range   | X | 8 - Santa Rosa Airport     | X |
| 2 - Cibola National Forest      | X | 9 - Grulla Wildlife Refuge | X |
| 3 - Lincoln National Forest     | X | 10 - Melrose Bombing Range | X |
| 4 - Two Rivers Reservoir        | X | 11 - Ute Lake State Park   | X |
| 5 - Bottomless Lakes State Park | X |                            |   |
| 6 - Bitter Lake Wildlife Refuge | X |                            |   |
| 7 - Summer Lake                 | X |                            |   |

NOTE - Reader must refer to the tables and narrative to determine the affected acreage within each area.



MAP 3  
SURFACE MANAGEMENT BY OTHER  
AGENCIES  
Roswell Resource Area

*Bureau of Reclamation*

**Fort Sumner Project (11,240 acres including the state park)**

- No Surface Occupancy within one-half mile of the Fort Sumner Dam site.
- No Surface Occupancy within Sumner Lake State Park.
- No Surface Occupancy below elevation 4279' MSL.
- No storage facilities below elevation 4300' MSL.
- Areas not covered by the requirements mentioned above would be leased and managed under appropriate Roswell District stipulations or Conditions of Approval (e.g., floodplain locations, see Appendixes 1 and 2).

**Tucumcari Project**

- No Surface Occupancy within the boundary of Hudson Lake.
- No Surface Occupancy below within the boundary of Dry Lake, below elevation 4085' MSL.

If lands presently managed by the BOR revert back to the management of the BLM, they would be leased with the above restrictions and managed under appropriate Roswell District Surface Use and Occupancy Requirements (Appendix 1) and Conditions of Approval (Appendix 2).

*Department of Defense*

**U.S. Air Force**

- Melrose Bombing Range core area (6,714 acres), not open to leasing
- Melrose Bombing Range buffer area (1,000 acres), open to leasing with controlled surface use. No structures taller than 100 feet. Exceptions may be considered on a case-by-

case basis by the Commander, Cannon AFB.

**U.S. Army**

- White Sands Missile Range (180,756 acres), not open to leasing

**U.S. Army Corps of Engineers**

- Two Rivers Reservoir Project (2,785 acres), open to leasing under appropriate Roswell District Surface Use and Occupancy Requirements (Appendix 1) and Conditions of Approval (Appendix 2), and the following conditions:

- No drilling shall be conducted within 1,000 feet of the dam embankments, appurtenant structures and the spillway;

- No buildings, structures, etc., shall be constructed or otherwise left in areas subject to inundation due to flood storage; and,

- All activities shall be reported to and coordinated with the Santa Rosa Lake and Dam Reservoir manager.

*New Mexico State Parks*

- Sumner Lake (8,123 acres), no surface occupancy (see "Bureau of Reclamation," above).
- Ute Lake (325 acres), no surface occupancy
- Bottomless Lakes (460 acres), not open to leasing.

*U.S. Fish and Wildlife Service*

- Salt Creek Wilderness (1,240 acres), not open to leasing. The Salt Creek Wilderness is administered by the U.S. Fish and Wildlife Service as part of Bitter Lake National Wildlife Refuge, but the 1,240-acre wilderness is not included in the acreage shown for the refuge.
- Grulla National Wildlife Refuge (69 acres), not open to leasing

- Bitter Lake National Wildlife Refuge (6,320 acres), not open to leasing.

*U.S. Forest Service, Cibola National Forest (34,336 acres)*

- Not open to leasing, 19,178 acres
- Open to leasing, 15,158 acres. Acreage on which “no surface occupancy” would be applied has not been specifically identified, but would apply to all developed recreation sites and electronic sites, and to slopes greater than 41 percent, unless a specific site is authorized. Some acreage will have “controlled surface use.” Restrictions on areas open to leasing will be determined on a case-by-case basis.

*U.S. Forest Service, Lincoln National Forest (364,579 acres)*

- Not open to leasing, 99,171 acres
- Open to leasing, 265,408 acres. Acreage on which “no surface occupancy” would be applied has not been identified. Some acreage will have “controlled surface use.” Restrictions on areas open to leasing will be determined on a case-by-case basis.

**Locatable Minerals Management**

*Goal: Continue to keep lands available for development of locatable minerals, while maintaining important environmental values.*

Lands currently withdrawn from entry under the 1872 Mining Law or closed to mineral leasing will remain unchanged unless otherwise designated by this plan (see Table 7). The BLM will periodically review all land withdrawals to determine if restrictions continue to be necessary to protect affected resource values. At such time as a with-

drawal is no longer considered to be necessary, it will be lifted and the lands returned to management under the general mining and mineral leasing laws.

All BLM-administered lands will be open to mining claim location and development, except those lands closed to mining claim location by withdrawal. BLM-administered lands currently withdrawn from all forms of appropriation under the general mining laws are summarized in Appendix 4 and shown on Map 4.

The areas summarized in Table 7 and shown on Map 4 will be withdrawn from all forms of appropriation under the general mining laws.

**Solid Leasable Minerals Management**

*Goal: Keep lands available for leasing and production, while maintaining important environmental values.*

All public lands will be open for the leasing of solid minerals, except those identified otherwise.

Lands in the following area will remain closed to leasing:

- Mathers Research Natural Area, 242 acres

Additional public lands that will be closed to solid mineral leasing are summarized in Table 8 and are shown on Map 5.

The federal mineral estate within the Bitter Lake National Wildlife Refuge will be closed to the leasing of solid minerals. Refer to Table 8 and Map 5.

The federal mineral estate along the Canadian River and major tributaries in Quay County (totaling about 4,900 acres) will be closed to the leasing of solid minerals. Refer to Table 8.

**TABLE 7  
AREAS WITHDRAWN FROM MINERAL ENTRY  
ROSWELL RESOURCE AREA**

Area	Estimated Mineral Acres
<b>BLM MANAGEMENT:</b>	
Alleged UFO Crash Sites <sup>1/</sup>	3,680
Billy the Kid Recreation Site	80
Border Hill NNL	150
Carrizozo Lava Flow and Little Black Peak WSAs	25,312
Cocklebur Lakes Archeological District	3,000
Fort Stanton ACEC*	27,622
Garnsey Bison Kill Site	880
Haystack Butte Archeological District	3,400
Haystack Mountain OHV Area (staging area)	160
Mathers Research Natural Area*	242
Mescalero Sands ACEC <sup>2/</sup>	7,931
North Pecos River ACEC	4,200
Overflow Wetlands ACEC	1,040
Roswell Cave Complex ACEC <sup>3/</sup>	14,894
Spring and Seep Areas	240
Valley of Fires Recreation Area	463
<b>Subtotal</b>	<b>93,294</b>
<b>OTHER AGENCY MANAGEMENT:</b>	
Blackwater Draw Archeological Site*	711
Canal Right-of-Way (NM 21834)*	7
Melrose Bombing Range, core area*	6,714
Nike Hercules Defense Site*	325
NM Army National Guard Training Site*	53
Fort Sumner Dam and Sumner Lake State Park (acreage comprises three segments)*	8,123
Tucumcari Project, Conchas Canal (NM 52398)*	7
Two Rivers Reservoir Project*	2,590
<b>Subtotal</b>	<b>18,530</b>
<b>Total</b>	<b>111,824</b>

\* Areas withdrawn from mineral entry as of 1994.

<sup>1/</sup> Two alleged sites.

<sup>2/</sup> Includes as many as 6,617 acres originally in the Mescalero Sands Recreation Complex\*.

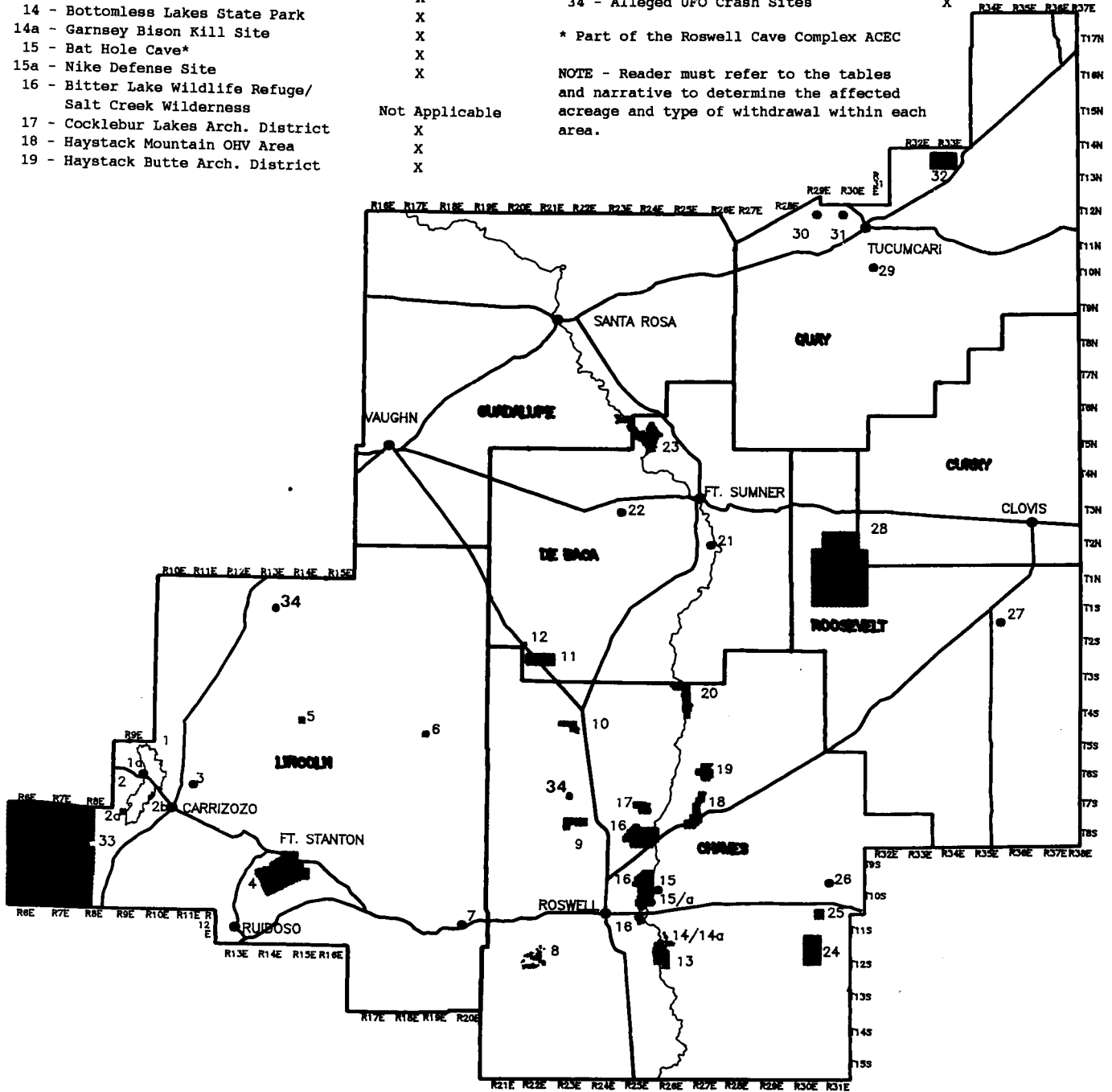
<sup>3/</sup> Includes original 40-acre withdrawal on Torgac Cave\*.

Source: BLM files, 1994.

# Areas Withdrawn

- 1 - Little Black Peak WSA X
  - 1a - Millrace Cave\* X
  - 2 - Carrizozo Lava Flow WSA X
  - 2a - Crockett Cave\* X
  - 2b - Valley of Fires Recreation Area X
  - 3 - Water Power Site X
  - 4 - Fort Stanton ACEC X
  - 5 - Zia Christine Cave\* X
  - 6 - Torgac Cave\* X
  - 7 - Border Hills NNL X
  - 8 - Two Rivers Reservoir Project X
  - 9 - Angora Cave\* X
  - 10 - Martin-Antelope Gyp Cave\* X
  - 11 - Crystal Caverns/Devil's Well Caves\* X
  - 12 - Coachwhip Cave\* X
  - 13 - Overflow Wetlands ACEC X
  - 14 - Bottomless Lakes State Park X
  - 14a - Garnsey Bison Kill Site X
  - 15 - Bat Hole Cave\* X
  - 15a - Nike Defense Site X
  - 16 - Bitter Lake Wildlife Refuge/  
Salt Creek Wilderness X
  - 17 - Cocklebur Lakes Arch. District X
  - 18 - Haystack Mountain OHV Area X
  - 19 - Haystack Butte Arch. District X
  - 20 - North Pecos River ACEC X
  - 21 - Billy the Kid Recreation Site X
  - 22 - FAA Navigation Site X
  - 23 - Sumner Lake X
  - 24 - Mescalero Sands ACEC X
  - 25 - Mescalero Sands North Dune  
OHV Area Not Applicable
  - 26 - Mathers RNA X
  - 27 - Blackwater Draw Arch. Site X
  - 28 - Melrose Bombing Range X
  - 29 - BOR Reservoir #2 Not Applicable
  - 30 - Tucumcari-Conchas Canal X
  - 31 - National Guard Training Site X
  - 32 - Ute Lake State Park Not Applicable
  - 33 - White Sands Missile Range X
  - 34 - Alleged UFO Crash Sites X
- \* Part of the Roswell Cave Complex ACEC
- NOTE - Reader must refer to the tables and narrative to determine the affected acreage and type of withdrawal within each area.

Not Applicable  
X  
X  
X



**MAP 4**  
**AREAS WITHDRAWN**  
Roswell Resource Area




**TABLE 8  
AREAS CLOSED TO SOLID MINERAL LEASING  
ROSWELL RESOURCE AREA  
PROPOSED PLAN**

Areas	Estimated Mineral Acres
<b>BLM MANAGEMENT:</b>	
Alleged UFO Crash Sites <sup>1/</sup>	3,680
Billy the Kid Recreation Site	80
Border Hill NNL	150
Carrizozo Lava Flow and Little Black Peak WSAs	25,312
Cocklebur Lakes Archeological district	3,000
Fort Stanton ACEC	27,622
Garnsey Bison Kill Site	880
Haystack Butte Archeological District	3,400
Haystack Mountain OHV Area	3,520
Mathers Research Natural Area	242
Mescalero Sands ACEC	7,931
Mescalero Sands North Dune OHV Area	610
North Pecos River ACEC	4,200
Overflow Wetlands ACEC	1,040
Roswell Cave Complex ACEC	14,894
Valley of Fires Recreation Area	463
<b>Subtotal</b>	<b>97,024</b>
<b>OTHER AGENCY MANAGEMENT:</b>	
Bitter Lake National Wildlife Refuge	6,320
<b>Subtotal</b>	<b>6,320</b>
<b>Total</b>	<b>103,344</b>

<sup>1/</sup> Two alleged sites.

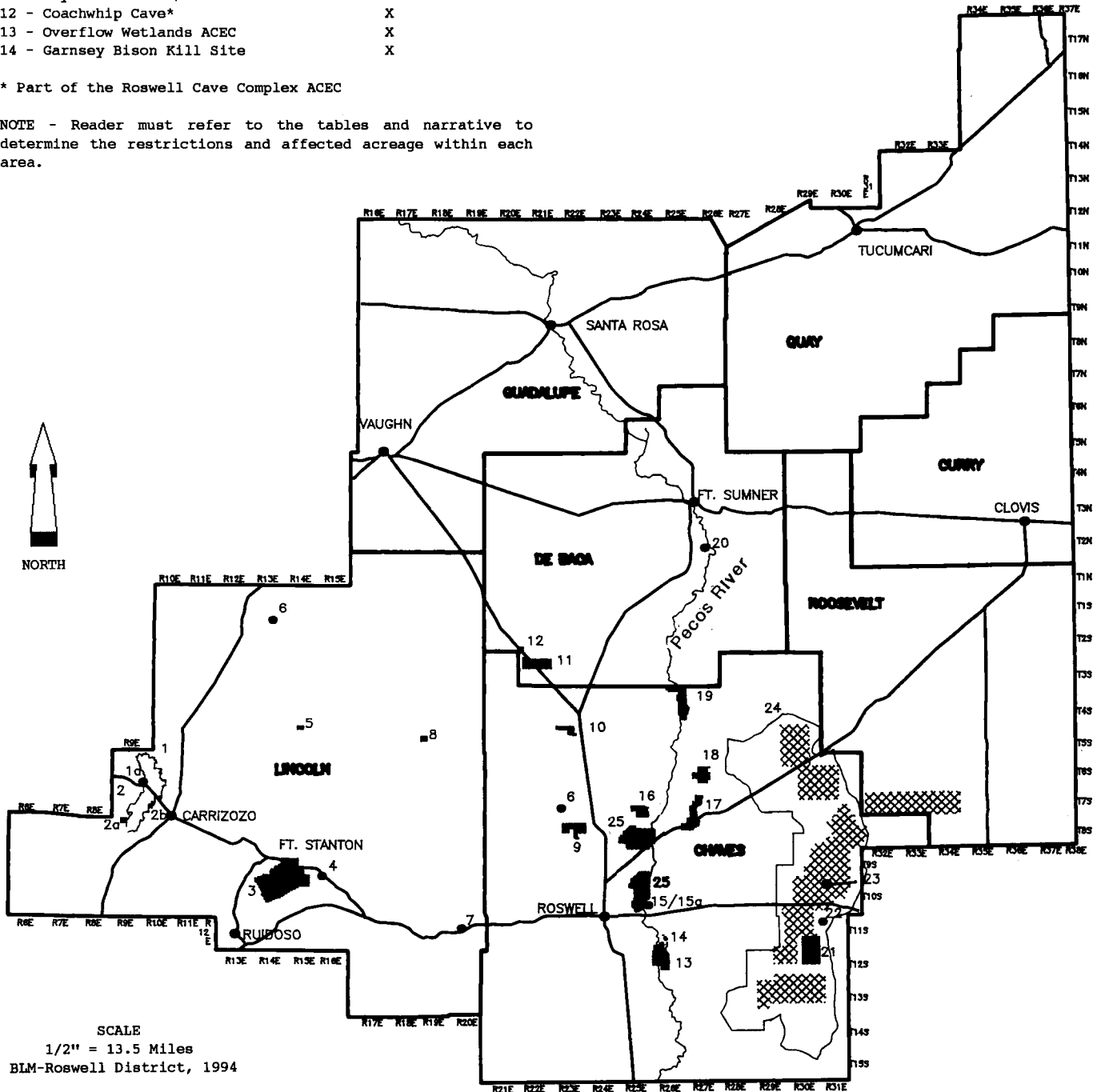
Source: BLM files, 1994.

# Areas Closed

1 - Little Black Peak WSA	X	15 - Bat Hole Cave*	X
1a - Millrace Cave*	X	15a - Comanche Hill	Not Applicable
2 - Carrizozo Lava Flow WSA	X	16 - Cacklebur Lakes Arch. District	X
2a - Crockett Cave*	X	17 - Haystack Mountain OHV Area	X
2b - Valley of Fires Recreation Area	X	18 - Haystack Butte Arch. District	X
3 - Fort Stanton ACEC		19 - North Pecos River ACEC	X
3 - Feather Cave Arch. Complex	X	20 - Billy the Kid Recreation Area	X
4 - Rio Bonito Acquired Lands	Not Applicable	21 - Mescalero Sands ACEC	X
5 - Zia Christine Cave*	X	22 - Mescalero Sands North Dune OHV Area	X
6 - Alleged UFO Crash Sites	X	23 - Mathers RNA	X
7 - Border Hill NNL	X	24 - Caprock WHA	Not Applicable
8 - Torgac Cave*	X	25 - Bitter Lake Wildlife Refuge	X
9 - Angora-Corn Cave*	X	 - Core Prairie Chicken Habitat	Not Applicable
10 - Martin-Antelope Gyp Cave*	X		
11 - Crystal Caverns/Devil's Well Caves*	X		
12 - Coachwhip Cave*	X		
13 - Overflow Wetlands ACEC	X		
14 - Garnsey Bison Kill Site	X		

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the restrictions and affected acreage within each area.



MAP 5  
**AREAS CLOSED TO  
 LEASING OF SOLID MINERALS**  
 Roswell Resource Area

## Saleable Minerals Management

*Goal: Provide mineral materials to the public while maintaining the protection necessary to prevent adverse environmental impacts and to minimize adverse impacts to public health and safety.*

All lands will be open to mineral material disposals, except those identified otherwise. Pertinent sections of the Roswell District Conditions of Approval (Appendix 2) will be applied to mineral material disposals.

Mineral material pits no longer in use or selected pits in areas with a high density of pits will be reclaimed. Pits will be reclaimed to standards that conform to, or improve, the condition of the surrounding ecosystem.

All federal mineral estate at Fort Stanton except for the Feather Cave Archeological Complex will be open to the discretionary disposal of mineral materials.

The areas that will be closed to mineral material disposals to preclude surface disturbance are summarized in Table 9 and are shown on Map 6.

**TABLE 9  
AREAS CLOSED TO THE DISPOSAL OF MINERAL MATERIALS  
ROSWELL RESOURCE AREA, PROPOSED PLAN**

Areas	Estimated Mineral Acres
Alleged UFO Crash Sites <sup>1/</sup>	3,680
Billy the Kid Recreation Site	80
Border Hill>NNL	150
Carrizozo Lava Flow and Little Black Peak WSAs	25,312
Cocklebur Lakes Archeological District	3,000
Feather Cave Archeological Complex	330
Garnsey Bison Kill Site	880
Haystack Butte Archeological District	3,400
Haystack Mountain OHV Area	3,520
Mathers Research Natural Area	242
Mescalero Sands ACEC	7,931
Mescalero Sands North Dune OHV Area	1,336
North Pecos River ACEC	4,200
Overflow Wetlands ACEC	1,040
Roswell Cave Complex ACEC	14,894
Valley of Fires Recreation Area	463
<b>Total</b>	<b>70,458</b>

<sup>1/</sup> Two alleged sites.

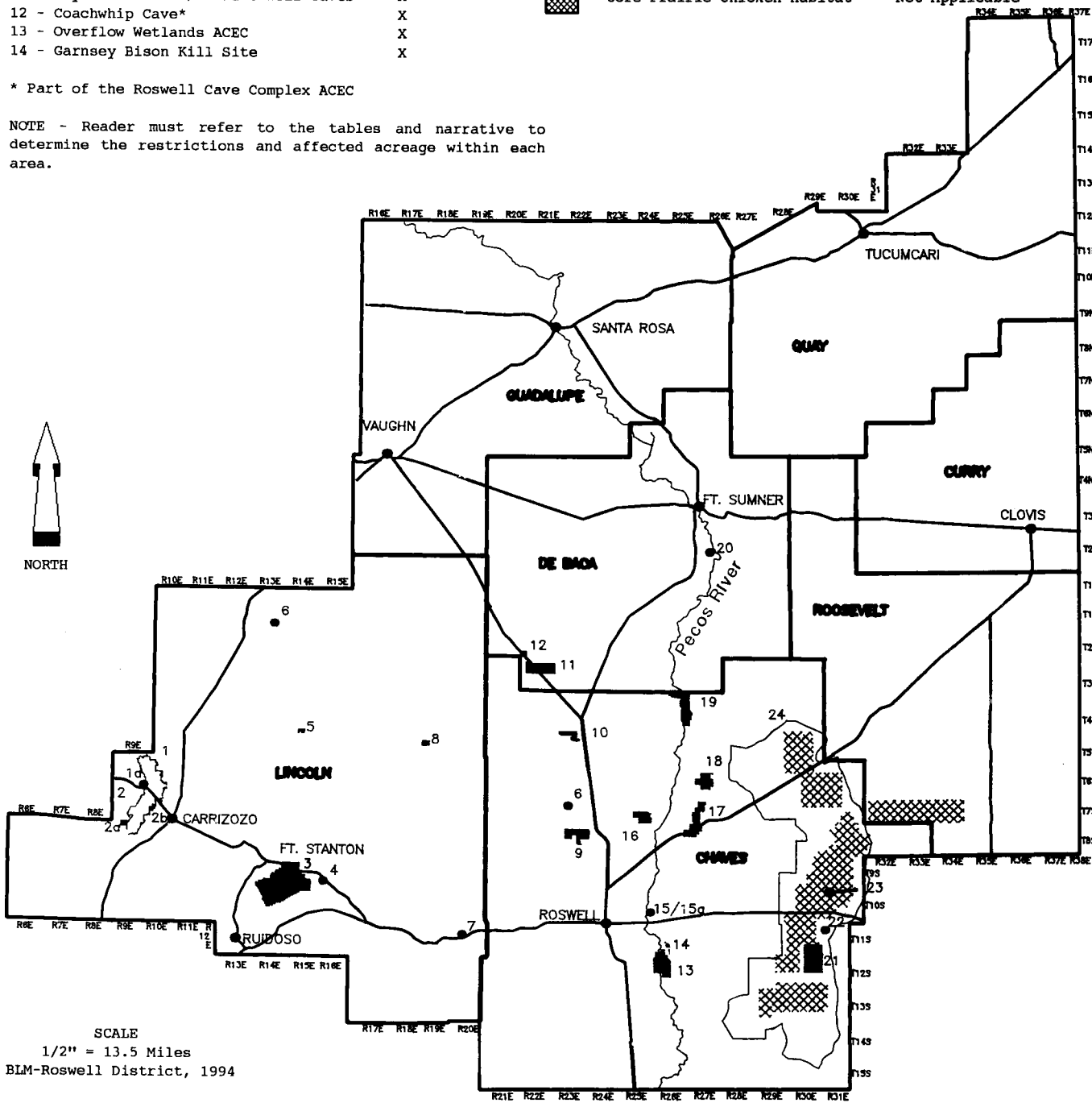
Source: BLM files, 1994.

# Areas Closed

1 - Little Black Peak WSA	X	15 - Bat Hole Cave*	X
1a - Millrace Cave*	X	15a- Comanche Hill	Not Applicable
2 - Carrizozo Lava Flow WSA	X	16 - Cocklebur Lakes Arch. District	X
2a - Crockett Cave*	X	17 - Haystack Mountain OHV Area	X
2b - Valley of Fires Recreation Area	X	18 - Haystack Butte Arch. District	X
3 - Feather Cave at Fort Stanton	X	19 - North Pecos River ACEC	X
4 - Río Bonito Acquired Lands	Not Applicable	20 - Billy the Kid Recreation Area	X
5 - Zia Christine Cave*	X	21 - Mescalero Sands ACEC	X
6 - Alleged UFO Crash Sites	X	22 - Mescalero Sands North Dune OHV Area	X
7 - Border Hill NNL	X	23 - Mathers RNA	X
8 - Torgac Cave*	X	24 - Caprock WHA	Not Applicable
9 - Angora-Corn Cave*	X		
10 - Martin-Antelope Gyp Cave*	X		
11 - Crystal Caverns/Devil's Well Caves*	X	☒ - Core Prairie Chicken Habitat	Not Applicable
12 - Coachwhip Cave*	X		
13 - Overflow Wetlands ACEC	X		
14 - Garnsey Bison Kill Site	X		

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the restrictions and affected acreage within each area.



MAP 6  
**AREAS CLOSED TO  
 DISPOSAL OF MINERAL MATERIALS**  
 Roswell Resource Area

## LANDS AND REALTY MANAGEMENT

*Goal: Manage the public lands to support the goals and objectives of other resource programs, to respond to public demand for land use authorizations, and to acquire administrative and public access where necessary.*

### Utility and Transportation System

Land use authorizations (rights-of-way, leases, permits) will be issued on a case-by-case basis. Pertinent sections of the Roswell District Conditions of Approval (Appendix 2) will be applied to land use authorizations. Whenever possible, facilities will be confined to existing alignments, minimizing width requirements and maximizing multiple occupancy. Rights-of-way locations, and terms and conditions for their use, will be identified. Rights-of-way will be granted only after site-specific analysis and development of specific conditions of approval. Rights-of-way will also be issued in accordance with New Mexico BLM's Roads Policy. Agriculture leases will be considered only when the lease is compatible with or enhances the land's identified resource values.

Landfills, hazardous waste disposal sites, and produced water disposal pits will not be authorized under rights-of-way or R&PP leases. If BLM lands are needed for these purposes, a title transfer will be considered.

A utility corridor for ancillary facilities associated with the Sierra Blanca Regional Airport will be retained. The corridor dimensions are 100 feet on each side of Lincoln County Road B-006, and 1.5 miles in length. No additional rights-of-way corridors will be designated.

Public lands in the resource area will be made available for rights-of-way, permits, and leases. In defined exclusion and avoidance areas, public lands will be open to the consideration of granting rights-of-way under the guidelines in Appendix 2.

Areas proposed for exclusion of rights-of-way for major projects such as electric transmission lines; pipelines 10 inches in diameter or larger; communication lines for interstate use; federal, state and interstate highways; and major county and private roads are summarized in Table 10 and are shown on Map 7.

Lands acquired as habitat for Special Status Species or acquired for wetland/riparian values will be added to the right-of-way exclusion area for major projects. Exceptions will be considered in exclusion zones on a case-by-case basis for facilities such as fences, range and wildlife water pipelines, power distribution lines, access to oil and gas facilities, or oil and gas collection or distribution pipelines.

Areas proposed for avoidance of rights-of-way for major projects such as electric transmission lines; pipelines 10 inches in diameter or larger; communication lines for interstate use; federal, state and interstate highways; and major county and private roads are summarized in Table 11 and are shown on Map 8. Rights-of-way for major projects and for facilities such as fences, range and wildlife water pipelines, power distribution lines, access to oil and gas facilities, or oil and gas collection or distribution pipelines will be considered in avoidance zones on a case-by-case basis.

**TABLE 10  
RIGHTS-OF-WAY EXCLUSION AREAS  
ROSWELL RESOURCE AREA**

Areas	Estimated Acres
Alleged UFO Crash Sites <sup>1/</sup>	3,680
Border Hill NNL	150
Carrizozo Lava Flow and Little Black Peak WSAs	25,312
Cocklebur Lakes Archeological District	3,000
Fort Stanton ACEC	24,630
Garnsey Bison Kill Site	360
Haystack Butte Archeological District	3,400
Mathers Research Natural Area	242
Mescalero Sands ACEC	7,888
North Pecos River ACEC	3,360
Overflow Wetlands ACEC	3,000
Rio Bonito <sup>2/</sup>	3,000
Roswell Cave Complex ACEC	14,894
U.S. Highway 380 corridor through the Carrizozo Lava Flow (applies to overhead power and telephone lines)	76
Valley of Fires Recreation Area	463
<b>Total</b>	<b>93,455</b>

<sup>1/</sup> Two alleged sites.

<sup>2/</sup> Includes the Rio Bonito acquired lands, Rio Bonito Waterfall, lands along the Rio Bonito adjacent to Fort Stanton ACEC, and NMSU facilities at Fort Stanton.

Source: BLM files, 1994

**TABLE 11  
RIGHTS-OF-WAY AVOIDANCE AREAS  
ROSWELL RESOURCE AREA**

Areas	Estimated Acres
Core Prairie Chicken Habitat Area	249,400
Haystack Mountain OHV Area (applies to overhead power and telephone lines)	4,153
Mescalero Sand Dune North OHV Area (applies to overhead power and telephone lines)	610
North Pecos River ACEC	3,362
<b>Total</b>	<b>257,525</b>

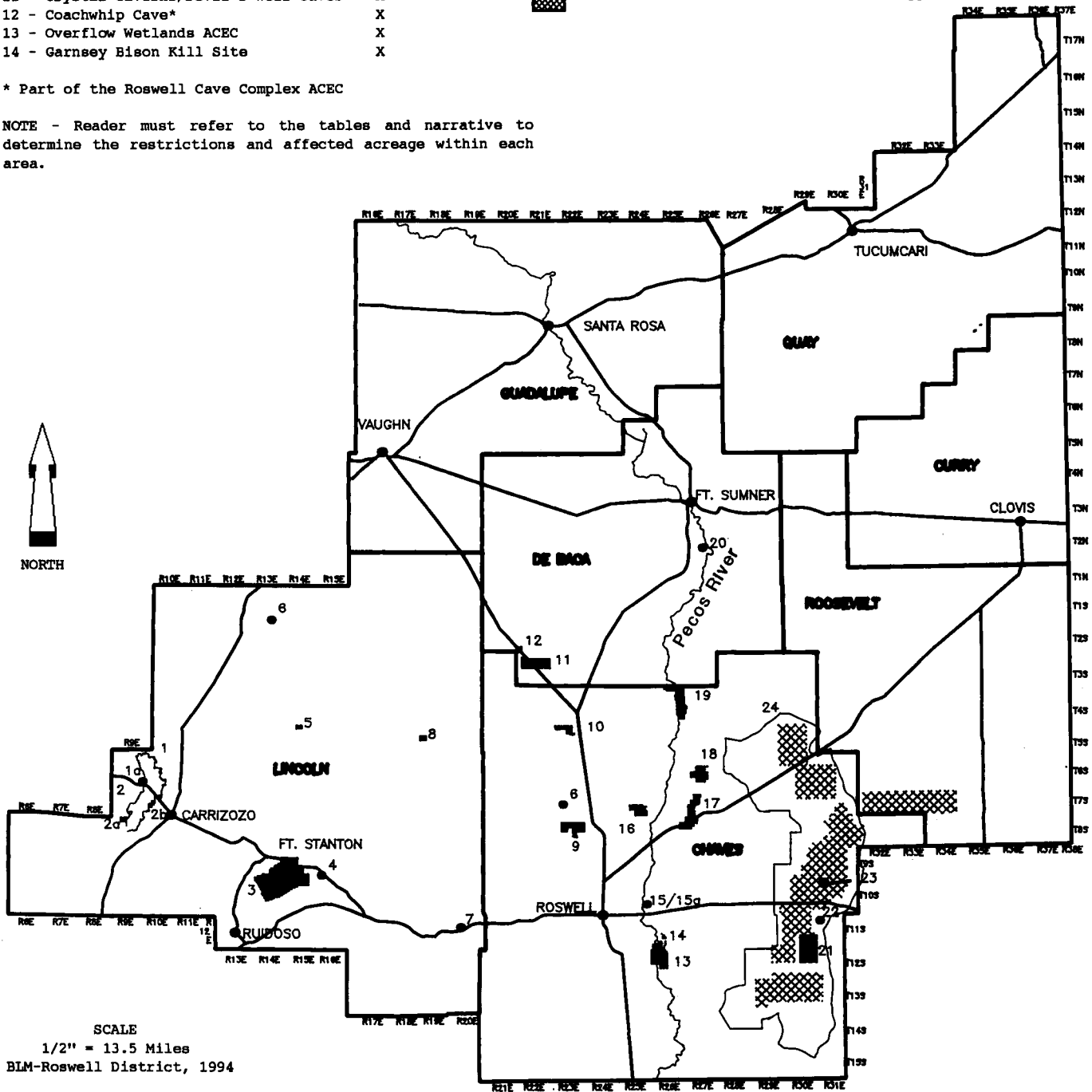
Source: BLM files, 1994.

# Rights-of-Way Exclusion Areas

1 - Little Black Peak WSA	X	15 - Bat Hole Cave*	X
1a - Millrace Cave*	X	15a- Comanche Hill	Not Applicable
2 - Carrizozo Lava Flow WSA	X	16 - Cocklebur Lakes Arch. District	X
2a - Crockett Cave*	X	17 - Haystack Mountain OHV Area	Not Applicable
2b - Valley of Fires Recreation Area	X	18 - Haystack Butte Arch. District	X
3 - Fort Stanton ACEC	X	19 - North Pecos River ACEC	X
4 - Rio Bonito Acquired Lands	X	20 - Billy the Kid Recreation Area	Not Applicable
5 - Zia Christine Cave*	X	21 - Mescalero Sands ACEC	X
6 - Alleged UFO Crash Sites	X	22 - Mescalero Sands North Dune OHV Area	Not Applicable
7 - Border Hill NNL	X	23 - Mathers RNA	X
8 - Torgac Cave*	X	24 - Caprock WHA	Not Applicable
9 - Angora-Corn Cave*	X		
10 - Martin-Antelope Gyp Cave*	X		
11 - Crystal Caverns/Devil's Well Caves*	X	☒ - Core Prairie Chicken Habitat	Not Applicable
12 - Coachwhip Cave*	X		
13 - Overflow Wetlands ACEC	X		
14 - Garnsey Bison Kill Site	X		

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the restrictions and affected acreage within each area.



MAP 7  
RIGHTS-OF-WAY EXCLUSION AREAS  
Roswell Resource Area

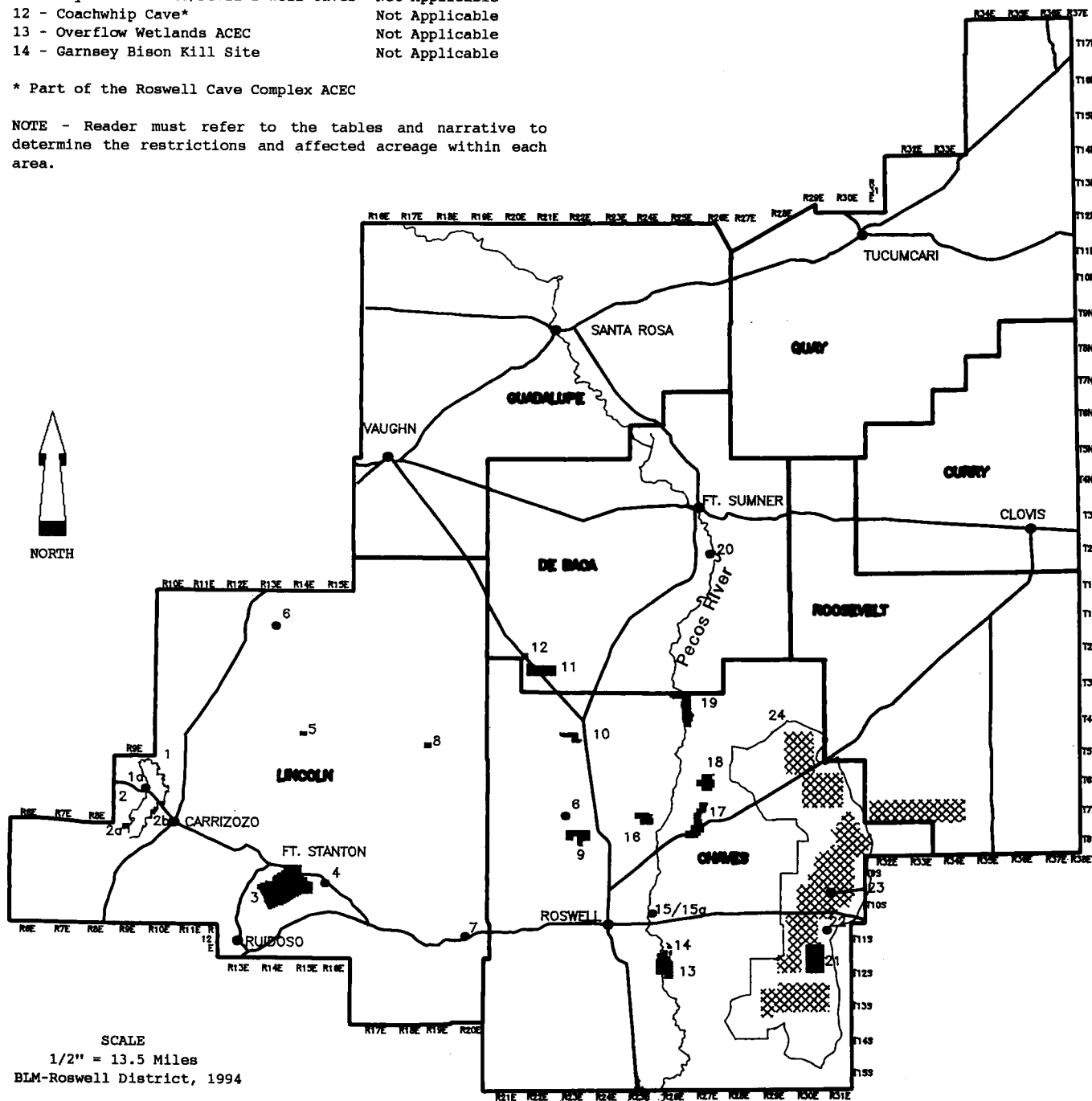
# Rights-of-Way Avoidance Areas

1 - Little Black Peak WSA	Not Applicable	15 - Bat Hole Cave*	Not Applicable
1a - Millrace Caves*	Not Applicable	15a- Comanche Hill	Not Applicable
2 - Carrizozo Lava Flow WSA	Not Applicable	16 - Cocklebur Lakes Arch. District	Not Applicable
2a - Crockett Cave*	Not Applicable	17 - Haystack Mountain OHV Area	X
2b - Valley of Fires Recreation Area	Not Applicable	18 - Haystack Butte Arch. District	Not Applicable
3 - Fort Stanton ACEC	Not Applicable	19 - North Pecos River ACEC	X
4 - Rio Bonito Acquired Lands	Not Applicable	20 - Billy the Kid Recreation Area	Not Applicable
5 - Zia Christine Cave*	Not Applicable	21 - Mescalero Sands ACEC	Not Applicable
6 - Alleged UFO Crash Sites	Not Applicable	22 - Mescalero Sands North Dune OHV Area	X
7 - Border Hill NNL	Not Applicable	23 - Mathers RNA	Not Applicable
8 - Torgac Cave*	Not Applicable	24 - Caprock WHA	Not Applicable
9 - Angora-Corn Cave*	Not Applicable		
10 - Martin-Antelope Gyp Cave*	Not Applicable		
11 - Crystal Caverns/Devil's Well Caves*	Not Applicable		
12 - Coachwhip Cave*	Not Applicable		
13 - Overflow Wetlands ACEC	Not Applicable		
14 - Garnsey Bison Kill Site	Not Applicable		

 - Core Prairie Chicken Habitat X

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the restrictions and affected acreage within each area.



MAP 8  
**RIGHTS-OF-WAY AVOIDANCE AREAS**  
 Roswell Resource Area



## Retention

To facilitate the planning process, the Roswell Resource Area was divided into three zones, based on land ownership patterns (see Map 9). Zone 1 includes the better-blocked public surface lands in Chaves, Lincoln, Guadalupe and DeBaca counties. Zone 2 includes the scattered public lands in Chaves, Lincoln, DeBaca, and Guadalupe counties. Zone 3 includes the very scattered lands in Curry, Quay, and Roosevelt Counties.

In Zone 1, the management philosophy is to retain the public lands in federal ownership. However, exchanges may be used to create better-blocked land ownership patterns and facilitate better resource management. Sales and disposals for public purposes also could be used to facilitate better management in Zone 1, in some cases. Lands acquired anywhere in the resource area will be managed for retention, irrespective of their location.

In Zone 2, the management philosophy is to dispose of public lands, primarily through exchange. Sales and disposals for public purposes also could be used, in some cases. When possible, exchanges of public lands for private lands will be conducted in the same county, to minimize the impacts to PILT payments and property taxes. In Zone 3, the management philosophy is to dispose of the public lands either through exchange or sale.

Lands in Zones 2 and 3 identified for retention during the inventory, planning, or land disposal processes, will be managed as if they are in Zone 1. Reasons for retention include the presence of T&E habitat, critical wildlife habitat, unique historical or cultural resources, or riparian areas. Criteria for determining if public lands should be retained are listed in Appendix 5.

## Acquisition




The BLM will pursue the acquisition of facilities at Fort Stanton formerly owned by New Mexico State University. The acquisition of state and private lands in wilderness study areas will be pursued if opportunities arise (refer to the “Wilderness Management” discussion in this chapter).

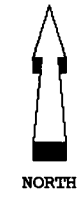
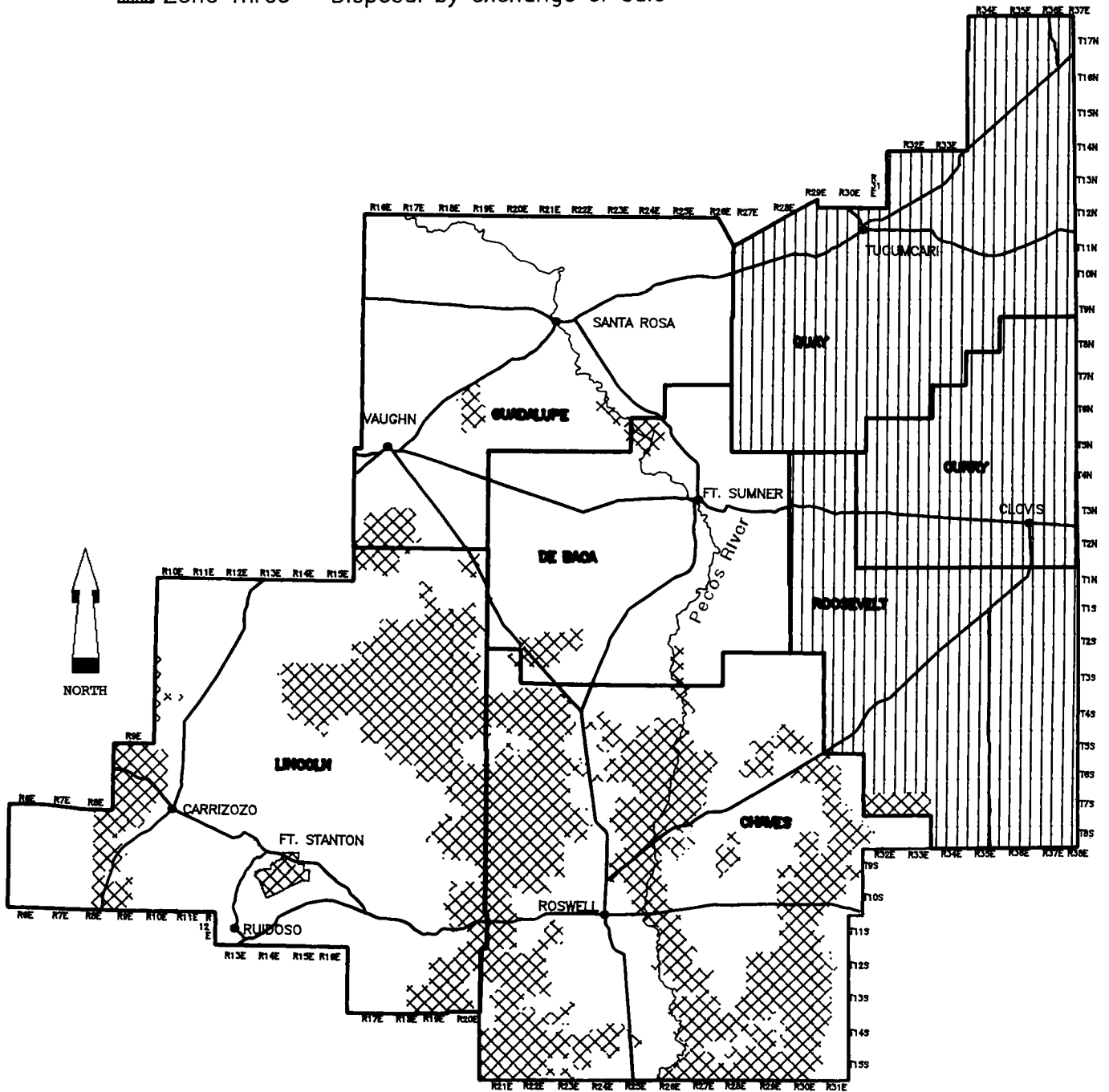
About 3,000 acres of private or state lands in the vicinity of Fort Stanton will be considered for acquisition to enhance management in that area.

Over the life of the plan, the acquisition of about 75,800 acres of non-federal lands or interests in non-federal lands, including those in the Fort Stanton area, will be considered on a case-by-case basis to achieve management objectives. Any lands acquired will be managed according to the management prescriptions in this plan. Refer to Appendix 5 for acquisition criteria. The areas summarized in Tables 12 and 13, shown on Map 10, and described in Appendix 6 are currently identified as being suitable for consideration for acquisition, as opportunities become available.

Easements will be acquired to provide access to public lands for recreation, wildlife, range, cultural and historical, mineral, ACEC, special management area and other resource needs, as opportunities arise. Criteria for the acquisition of easements are described in Appendix 6. Easements are needed in the following areas (this list is not inclusive):

- Overflow Wetlands WHA
- Crockett Cave
- Crystal Cave
- Millrace Cave
- Little Black Peak Cinder Cone east access
- Little Black Peak Cinder Cone west access
- Carrizozo Lava Flow WSA lower windmill east access
- Mescalero Sands ACEC east access
- Mescalero Sands ACEC west access

-  Zone One – Retention
-  Zone Two – Disposal by exchange, same county
-  Zone Three – Disposal by exchange or sale



SCALE  
 1/2" = 13.5 Miles  
 BLM-Roswell District, 1994

**MAP 9**  
**LAND TENURE ADJUSTMENT ZONES**  
 Roswell Resource Area

**TABLE 12**  
**LANDS CONSIDERED SUITABLE FOR POTENTIAL ACQUISITION**  
**ESTIMATED ACREAGES**  
**ROSWELL RESOURCE AREA**

Areas	Private (Acres)	State (Acres)
Caprock WHA Expansion	8,480	18,969
Carrizozo Lava Flow and Little Black Peak area <sup>1/</sup>	6,179	5,371
Cedar Hills Deer Management Area		961
Fort Stanton area <sup>2/</sup>	1,265	1,760
Garnsey Bison Kill Site	242	320
Haystack Butte Archeological District	40	640
Haystack Mountain OHV Area	3,440	2,560
Mescalero Sands ACEC	637	1,797
Mescalero Sands North Dune OHV Area	410	
North Pecos River ACEC	1,880	1,160
Other Mescalero Sands area		2,327
Other Pecos River area	4,165	1,600
Overflow Wetlands ACEC	1,597	1,720
Pecos River Deer Management Area		2,560
Playa Lakes	1,091	550
Roswell Cave Complex ACEC	4,920	
Valley of Fires Recreation Area	297	
<b>Total</b>	<b>34,201</b>	<b>42,893</b>

<sup>1/</sup> Includes the Carrizozo Lava Flow and Little Black Peak WSAs

<sup>2/</sup> Includes the Rio Bonito Waterfall, lands along the Rio Bonito adjacent to Fort Stanton ACEC, and NMSU facilities at Fort Stanton.

Source: BLM files, 1994.

**TABLE 13**  
**ROSWELL CAVE COMPLEX ACEC, SUMMARY OF ACREAGES**  
**(INCLUDING LANDS PROPOSED FOR CONSIDERATION FOR ACQUISITION<sup>1/</sup>)**  
**ROSWELL RESOURCE AREA**

<b>Cave System</b>	<b>BLM Surface and Mineral Estate Acres</b>	<b>Split Estate Acres</b>	<b>Private Acres for Acquisition</b>	<b>Total Acres</b>
Angora-Corn	4,800			4,800
Bat Hole	40			40
Coachwhip	614			614
Crockett	640			640
Crystal Caverns-Devil's Well	2,280	2,840	4,120	6,400
Martin-Antelope Gyp	2,080		320	2,400
Millrace	480		160	640
Torgac	480		160	640
Zia Christine	480	160	160	640
<b>Totals</b>	<b>11,894</b>	<b>3,000</b>	<b>4,920</b>	<b>16,814</b>

<sup>1/</sup> There are no state lands proposed for acquisition.

Source: BLM files, 1994.

## **Disposal**

The disposal of an estimated 150,000 acres of public lands (e.g., transfer from the administration of the BLM to other federal agencies, or local or state governments, or disposal through methods such as exchange, public sale, State indemnity selection, or Recreation and Public Purposes leases or patents) will be considered on a case-by-case basis. Appendix 7 includes a list of tracts totalling 110,324 acres already identified that would be suitable for consideration for disposal. Prior to any disposal action, these lands, and any others proposed for disposal, will be evaluated for conformance with the disposal criteria listed in Appendix 5.

## **Access**

Access to public lands will be provided throughout the planning area. Easements will be acquired to provide access to public lands for recreational, wildlife, range, cultural and historical, mineral, special management, and other resource needs. Priority for the acquisition of easements will be placed on former county roads vacated by county governments, when those roads are important for the management of the public lands. Access will be closed, or restricted, where necessary and in accordance with OHV designations, to protect public health and safety or areas with significant resource values.

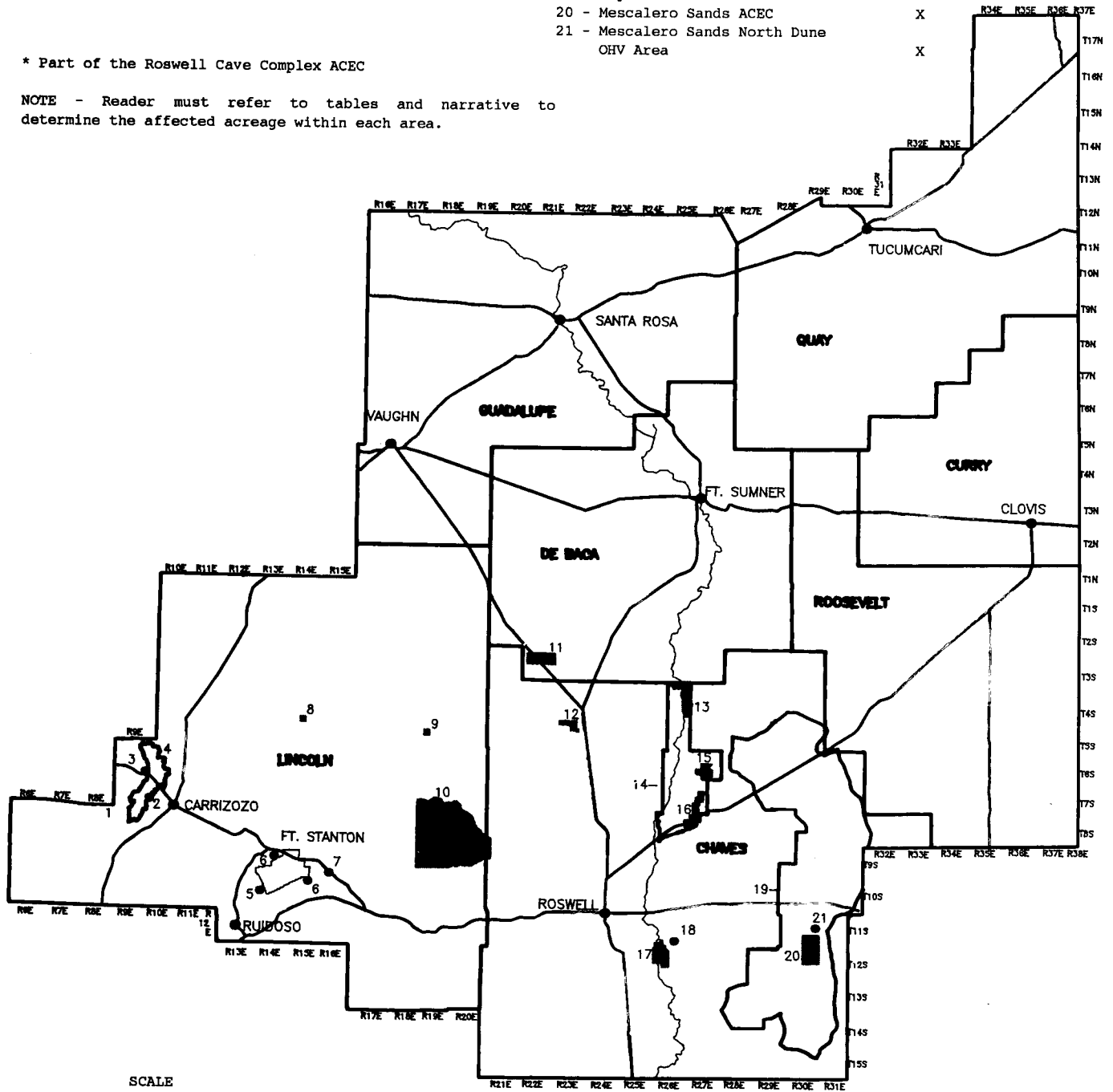
Placement of advertising signs on public lands adjacent to county roads, or roads on the BLM Transportation Plan, will be required to meet the criteria for sign placement on federal or state highways.

# Potential Acquisitions

- |                                     |   |  |   |
|-------------------------------------|---|--|---|
| 1 - Carrizozo WSA                   | X | 11 - Crystal Caverns/Devil's Well Caves* | X |
| 2 - Valley of Fires Recreation Area | X | 12 - Martin-Antelope Gyp*                | X |
| 3 - Millrace Cave*                  | X | 13 - North Pecos River ACEC              | X |
| 4 - Little Black Peak WSA           | X | 14 - Pecos River Deer Mgmt. Area         | X |
| 5 - Rio Bonito Waterfall            | X | 15 - Haystack Butte Arch. District       | X |
| 6 - Lands adjacent to Ft. Stanton   | X | 16 - Haystack Mountain OHV Area          | X |
| 7 - Rio Bonito Acquired Lands       | X | 17 - Overflow Wetlands ACEC              | X |
| 8 - Zia Christine Cave*             | X | 18 - Garnsey Bison Kill Site             | X |
| 9 - Torgac Cave*                    | X | 19 - Caprock WHA                         | X |
| 10 - Cedar Hills Deer Mgmt. Area    | X | 20 - Mescalero Sands ACEC                | X |
|                                     |   | 21 - Mescalero Sands North Dune OHV Area | X |

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to tables and narrative to determine the affected acreage within each area.



SCALE  
1/2" = 13.5 Miles  
BLM-Roswell District, 1994

MAP 10  
POTENTIAL  
ACQUISITIONS  
Roswell Resource Area

## Trespass

Unauthorized uses in the planning area will be resolved on a case-by-case basis. If circumstances warrant, the issuance of a permit, lease, or right-of-way authorizing the use could occur. Disposal of a parcel through sale or exchange may be considered to resolve long-standing trespass if disposal criteria are met.

## Withdrawals and Classifications

Land withdrawals and classifications will be processed to afford protection to important resource values. Withdrawals that no longer serve the purposes for which they were originally intended will be revoked. Prior to revocation, withdrawn lands will be reviewed to determine if any other resource values require withdrawal protection. Existing withdrawals are shown on Map 4 and displayed in Appendix 4.

The Multiple Use Management Classification as it affects public lands in the planning area would be revoked. (Refer to Appendix 4.)

Public water reserves will be terminated where no longer needed, and acquired where the need exists.

Public lands identified as having water power values will be protected by a water power withdrawal. Water power withdrawals of public lands that lack water power values or are inconsistent with the objectives of the approved RMP will be reviewed and recommended for termination.

## LIVESTOCK GRAZING MANAGEMENT

*Goal: Provide effective and efficient management of allotments to maintain, improve, and monitor range conditions.*

Allotment categorization and initial grazing use allocations made in the East Roswell Grazing Environmental Impact Statement (1979) and the Roswell Resource Area Management Framework Plan Amendment/Environmental Impact Statement (1984) will be used as the basis for continued livestock grazing. Changes in use allocations will continue to be made on the basis of

monitoring data. Livestock grazing management decisions from previous land use plans, and the disposition of those decisions, are discussed in Appendix 8.

Forty-five existing allotment management plans (AMPs) are in various states of implementation or revision. Each year, the BLM will revise some of the 45 or begin new activity plans (an AMP or the functional equivalent of an AMP) on "I" category allotments. However, the estimated total number of both existing and new AMPs worked on each year by the BLM would average about three. Permittees, lessees, other federal or state resource management agencies, or interested citizens also may prepare activity plans for allotment management. The management plans will be prepared according to the regulations current at the time (presently 43 CFR 4120.2). The concept of multiple use will be used in the development of activity plans to address other resource concerns, such as wildlife habitat within the Macho HMP or Desired Plant Community objectives for a specific plant community.

Livestock grazing following vegetative treatments will be deferred for a time period established in conjunction with the treatment method. In areas where shinnery oak is not treated, adjustments in livestock numbers, or other changes, will be considered, and implemented, if needed, to avoid conflicts with the management of habitat for the lesser prairie chicken and the sand dune lizard. Livestock grazing will also be deferred in areas burned by wildfires, if needed. The time periods for deferments will be determined on a case-by-case basis, after considering factors such as the extent of the fire, the type of vegetation burned, the intensity of the fire, and vegetation management objectives.

Within portions of the Macho WHA meeting the antelope suitability criteria, new internal pasture fences constructed of netwire will not be allowed across public lands on allotments that currently support pronghorn or on allotments in the WHA with the potential to provide suitable pronghorn habitat. Exceptions to this requirement are:

- The grazing permittee agrees to the construction of pronghorn passes on proposed interior fences;

- The grazing permittee agrees to allow the BLM to modify fences;
- Netwire would be used in the construction of small traps or holding pens;
- Netwire would be used in security fences around facilities such as microwave sites.

Future changes in kind of livestock will necessitate reconsidering the fencing standard to be used in each situation.

Pertinent sections of the Roswell District Conditions of Approval (Appendix 2) will be applied to approvals for construction of range improvement projects.

Rangeland improvements and vegetation treatments will continue to be implemented to improve or maintain forage production and range condition, in an effort to achieve the Desired Plant Community. Wildlife habitat and watershed management needs will be emphasized.

Specific grazing systems will be developed, in coordination with permittees, on allotments in the Caprock Wildlife Habitat Area (WHA) to meet DPC objectives.

The stocking rate of sheep in the Macho WHA in areas currently supporting pronghorn, and which meet transplant criteria, must not exceed an average of 50 sheep per section per allotment over the course of the grazing year.

Livestock grazing on the acquired Rio Bonito lands will be considered during the development of a management plan for the area, to determine if grazing should occur and under what conditions it would be allowed. Grazing preference will not be established and grazing will be used as a tool to accomplish the objectives of the management plan. On other acquired lands, establishing grazing preference will be considered on a case-by-case basis, depending on the purpose for which the lands were acquired and the management objectives for those lands.

In the Mathers Research Natural Area, the area closed to livestock grazing will be increased from

about 91 acres to about 195 acres. Livestock grazing in the RNA will be allowed east of the access road and south of the east-west fence that roughly follows the south boundary of the RNA.

Management proposed will result in a reduction in the amount of livestock grazing authorized on the public lands. Table 14 summarizes estimated AUM (animal unit month) reductions that may result from certain management actions.

Livestock stocking rates will be adjusted under certain circumstances to reduce or eliminate conflicts with recreation use and development, to promote visitor safety and health, and to reduce the cost of facility maintenance. Adjustments will include excluding livestock from developed recreation facilities and within fenced exclosures around caves.

### **Standards for Rangeland Health and Guidelines for Grazing Management**

As a completely separate effort, but related to development of the Roswell RMP, standards for rangeland health and guidelines for grazing management are being developed for public lands in New Mexico by the New Mexico Resource Advisory Council, in conjunction with the BLM. The standards and guidelines are being developed in accordance with the BLM's grazing regulations, which became effective on August 21, 1995. The time frames for the completion of the Roswell RMP and the development of statewide standards and guidelines coincide, with both efforts expected to be completed in fiscal year 1997.

The standards and guidelines will be implemented in the Roswell Resource Area to develop a more effective partnership between the ranching industry and the BLM. Among the changes resulting from the new grazing regulations and the standards and guidelines will be the opportunity for management plans to be developed by grazing permittees and lessees, or other involved parties, in addition to the BLM. Also, ranchers will play a significantly greater role in gathering basic rangeland monitoring data on which local management decisions would be based, and in evaluating the effectiveness of livestock grazing

management plans.

Because the development of the standards and guidelines is not complete, specifics relating to rangeland health and livestock grazing management cannot be included in this land use plan prior to its completion. Once the standards and guidelines are developed, their effect will be addressed in a statewide National Environmental Policy Act

document (environmental impact statement or environmental assessment) prepared by the BLM. Any needed revisions of the Roswell RMP resulting from development of the standards and guidelines and the impact statement will be made at a future date. The completed standards and guidelines will become part of the Roswell RMP and will be implemented in conjunction with the other land use decisions in the RMP.

**TABLE 14  
CHANGES IN GRAZING ANIMAL UNIT MONTHS  
ROSWELL RESOURCE AREA**

PROPOSED ACTION	CHANGE IN AUMs
Surface disturbance due to oil and gas activity	-120
Garnsey Bison Kill Site <sup>1/</sup>	-24
Haystack Mountain OHV Area <sup>1/</sup>	0
Mescalero Sand Dune North OHV Area <sup>1/</sup>	0
Billy the Kid Recreation Site	-12
Overflow Wetlands ACEC <sup>1/</sup>	-120 to -674
North Pecos River ACEC	-756
Mescalero Sands ACEC	-144
Mathers Research Natural Area	-21
Roswell Cave Complex ACEC	-216
Fort Stanton ACEC <sup>2/</sup>	0
Feather Cave Complex <sup>2/</sup>	-72
Disposal of public lands <sup>3/</sup>	-34,260
Change in vegetation utilization levels	0
<b><i>Total change in animal unit months if all proposals are implemented</i></b>	<b>-35,745 to -36,299</b>

Note: Divide numbers (which are animal unit months) by 12 to determine the number of animal units affected.

<sup>1/</sup> Proposal includes a range of acreage to be excluded.

<sup>2/</sup> Not allocated under the Taylor Grazing Act.

<sup>3/</sup> Livestock grazing is likely to continue. The land would transfer from public to private ownership. AUMs are reduced because land disposals produce changes in licensed use on public lands.

Source: RMP team estimates, 1994



## VEGETATION MANAGEMENT

*Goal: Manage resources to maintain or improve vegetation with the emphasis on watershed protection and forage for wildlife.*

General management objectives, the composition of plant communities identified as a desired plant community (DPC), and practices proposed for use in meeting the management objectives and DPC are described below. In all cases, an ecological site must be capable of attaining the DPC through natural succession, management action, or both. The percentage-ranges of the various components shown in the following tables are guidelines. The accuracy of those ranges must be confirmed through use over a period of years and in a variety of pastures. The objectives in site-specific management plans will determine whether or not one or more components of the DPC are met. Successful management will concentrate on meeting at least one, but not necessarily both, of the vegetative community objectives (percent cover or cover by percent composition). Seeding mixtures under DPC will emphasize the use of native species and avoid noxious weeds and exotic species. Refer to Appendix 11 in the Draft Roswell RMP/EIS for more information on plant communities and the development of the DPC process.

Watershed, wildlife and livestock management objectives for each community, except the Mixed Shrub Malpais Community, are to improve vegetation composition and production in areas that currently do not meet the vegetation condition objectives, and to maintain vegetation condition in areas that do. The management objectives for the Mixed Shrub Malpais Community are to maintain the current vegetation composition and production levels.

The standard practices that could be employed to meet a DPC will be based on thresholds and vegetation condition objectives described below for each community type. The specific practices to be used and the numbers of acres affected will be determined during activity planning, based on the results of resource monitoring. During activ-

ity planning, specific resource condition objectives will be developed for a distinct area (e.g., an allotment) based on the planned use of the area and the more general vegetation condition objectives developed in this land use plan.

The standard practices that will be employed to meet management objectives in each community are:

- Utilization levels not exceeding 45 percent of annual plant production. Utilization levels will be determined prior to green-up and measured on key forage species.
- Projects such as fences, exclosures, water developments, erosion control structures, reseeding, or vegetative sales.
- Grazing treatments such as rest, changes in season of use, class of livestock, or stocking rates.
- Vegetation treatments, including, prescribed fire or prescribed natural fire, fuelwood sales, and biological, chemical or mechanical controls. Refer to Appendix 9 for chemical treatment practices.
- Treatment of saltcedar as conditions warrant. Considerations in determining whether to treat include location and density of saltcedar stands, available budget and staff to conduct treatment, and objectives of proposed treatment.

Constraints on treatments for each community are:

- A project area will not be chemically treated until the chemical treatment of an adjacent project area has been in place at least five years.
- Native, deciduous tree species in all plant communities, such as hackberry, black walnut, New Mexico walnut, and desert willow, will be protected from vegetation treatments and surface disturbance.

## Grassland Community

Refer to Table 15 for Grassland Community vegetation condition objectives.

Vegetation treatments to influence DPC will be considered at the following threshold levels:

Mesquite	50 plants/acre
Cholla	100 plants/acre
Catclaw	50 plants/acre
Creosote	20% of the vegetative canopy
Lechuguilla	20% of the vegetative canopy
Tarbush	20% of the vegetative canopy
Broom snakeweed	25% by weight of vegetative production
Pinon/juniper	50 trees/acre

**TABLE 15  
VEGETATION MANAGEMENT -  
GRASSLAND COMMUNITY  
ROSWELL RESOURCE AREA**

Vegetative Community Objectives	Percent	Vegetative
	Cover	Cover By Percent Composition
Grass/Forbs	15-52	
Grasses		30-85
Forbs		10-15
Shrubs/Trees	3-12	
Shrubs		1-10
Bare Ground	14-60	
Small Rock/ Large Rock	0-30	
Litter	8-44	

Note: An objective of vegetation composition management would be to include 10 genera of annual and perennial fall forbs preferred by pronghorn in pastures that support pronghorn or meet the Viability Index for transplants. Fall forb diversity is, in part, dependent upon precipitation, the size of the pasture, and stocking rates of domestic sheep.

Source: BLM files, 1994.

## Shinnery Oak-Dune Community

Refer to Table 16 for Shinnery Oak-Dune Community vegetation condition objectives.

The SOD community type on about 195 of the 242 acres in the Mathers Research Natural Area will not be grazed by livestock. The entire Natural Area will be used for wildlife population and habitat studies. Those studies may entail vegetative treatments and DPC may not be reached. Likewise, DPC may not be reached in the Mescalero Sands North Dune OHV Recreation Area, which will be managed primarily for off-road vehicle recreational activities, and in the proposed Mescalero Sands ACEC, which will be managed according to the prescriptions for the ACEC.

Vegetation treatments to influence DPC in the shinnery oak-dune community will be considered at the following threshold:

Mesquite	50 plants/acre
Shinnery Oak	40 percent of vegetative cover by composition

Constraints on treatments in the shinnery oak-dune community are:

- Treatments may be conducted to achieve DPC objectives in areas that are not considered suitable or occupied habitat for special status species (e.g., the sand dune lizard). Suitable and occupied habitat will not be chemically treated unless the species is removed from state or federal listing, or an alternative treatment method is developed that would not impair habitat.

## Mixed Shrub Malpais Community

Watershed, wildlife and livestock management objectives for the Mixed Shrub Malpais Community are to maintain the current vegetation composition levels. This community is considered to encompass only the lava flow.

Refer to Table 17 for Mixed Shrub Malpais Community vegetation condition objectives.

Constraints on the management of vegetation in the Mixed Shrub Malpais Community are:

- No changes will be made in current live-stock management.
- No range improvement projects will be constructed in the Malpais.

**TABLE 16  
VEGETATION MANAGEMENT -  
SHINNERY OAK-DUNE COMMUNITY  
ROSWELL RESOURCE AREA**

Vegetative Community Objectives		
	Percent Cover	Vegetative Cover By Percent Composition
Grass/Forbs	16-40	
Grasses		50-70
Forbs		10-15
Shrubs/Trees	3-17	
Shrubs		25-40
Bare Ground	5-20	
Small Rock/ Large Rock	0-1	
Litter	25-70	

Source: BLM files, 1994.

### Pinon-Juniper Grassland Community

Refer to Table 18 for Pinon-Juniper Grassland Community vegetation condition objectives.

A mosaic of different vegetation structure and composition is needed to enhance wildlife habitat in this community type. Vegetation treatments to influence DPC in the pinon-juniper grassland community will be considered at the following threshold levels:

Mesquite	50 plants/acre
Cholla	100 plants/acre
Broom snakeweed	25% by weight of vegetative production
Pinon/juniper	50 trees/acre or when junipers encroach on drainages

Constraints on treatments in the pinon-juniper community are:

- Removal of trees will be done to create edge and mosaic patterns.

**TABLE 17  
VEGETATION MANAGEMENT -  
MIXED SHRUB MALPAIS COMMUNITY  
ROSWELL RESOURCE AREA**

Percent Cover	Existing
	Grass/Forbs 15-25
	Shrubs/Trees 4-10
	Bare Ground 15-
25	
/Large Rock	Small Rock 35-45
	Litter 10-15

Source: BLM files, 1994.

### Mixed Desert Shrub Community

Refer to Table 19 for Mixed Desert Shrub Community vegetation condition objectives.

Vegetation treatments to influence DPC in the mixed desert shrub community will be considered at the following threshold levels:

Mesquite	50 plants/acre
Cholla	100 plants/acre
Catclaw	50 plants/acre
Creosote	20% of the vegetative canopy
Lechuguilla	20% of the vegetative canopy
Tarbush	20% of the vegetative canopy
Broom snakeweed	25% by weight of vegetative production
Pinon/juniper	50 trees per acre

**TABLE 18  
VEGETATION MANAGEMENT -  
PINON-JUNIPER GRASSLAND COMMUNITY  
ROSWELL RESOURCE AREA**

<b>Vegetative Community Objectives</b>		
	<b>Percent Cover</b>	<b>Vegetative Cover By Percent Composition</b>
Grass/Forbs	15-35	
Grasses		30-40
Forbs		3-15
Shrubs/Trees	10-25	
Shrubs		20-35
Trees		30-40
Bare Ground	12-24	
Small Rock/ Large Rock	5-35	
Litter	10-20	

Source: BLM files, 1994.

### **Drainages, Draws and Canyons Community**

Refer to Table 20 for Drainages, Draws and Canyons Community vegetation condition objectives.

Vegetation treatments to influence DPC in the drainages, draws and canyons community will be considered at the following threshold levels:

Mesquite	50 plants/acre
Cholla	100 plants/acre
Catclaw	50 plants/acre
Creosote	20% of the vegetative canopy
Lechuguilla	20% of the vegetative canopy
Tarbush	20% of the vegetative canopy
Broom snakeweed	25% by weight of vegetative production

Constraints on treatments in the drainages, draws and canyons community are:

- Browse species will be protected.
- Riparian-wetland vegetation will be protected by methods such as developing riparian pastures, establishing upland waters, and conducting saltcedar control.

**TABLE 19  
VEGETATION MANAGEMENT -  
MIXED DESERT SHRUB COMMUNITY  
ROSWELL RESOURCE AREA**

<b>Vegetative Community Objectives</b>		
	<b>Percent Cover</b>	<b>Vegetative Cover By Percent Composition</b>
Grass/Forbs	11-28	
Grasses		55-75
Forbs		10-20
Shrubs/Trees	6-15	
Shrubs		15-20
Trees		1-10
Bare Ground	10-40	
Small Rock/ Large Rock	15-35	
Litter	1-12	

Source: BLM files, 1994.

**TABLE 20  
VEGETATION MANAGEMENT -  
DRAINAGES, DRAWS, AND  
CANYONS COMMUNITY  
ROSWELL RESOURCE AREA**

Vegetative Community Objectives	Percent Cover
Grass/Forbs	15-45
Shrubs/Trees	3-20
Bare Ground	0-60
Small Rock/Large Rock	0-40
Litter	4-43

Source: BLM files, 1994.

### **Riparian-Wetlands Community**

There is no current management objective based on Ecological Range Site Goals for the riparian-wetlands community. Riparian management objectives require more specific plant community prescriptions to meet these goals. Current Natural Resource Conservation Service range site descriptions do not adequately describe potential plant communities for riparian-wetland areas. Nevertheless, management would be directed toward achieving proper functioning condition.

### **Rio Bonito Acquired Lands**

Vegetation management on the acquired Rio Bonito lands will be developed under specific Ecological Range Site Goals which will include agricultural crops established on existing tillable acreage using water rights obtained with the acreage. Crops, including apple orchards, and tame pasture species such as hay, winter wheat, fescues, and orchard grass, will be selected for use by wildlife. Native trees and shrubs may be planted as nursery stock for transplanting on public lands elsewhere in the Rio Bonito Valley.

Livestock grazing on the acquired Rio Bonito

lands will be considered during the development of a management plan for the area, to determine if grazing should occur and under what conditions it would be allowed. Grazing preference will not be established and grazing will be used as a tool to accomplish the objectives of the management plan.

If livestock grazing is allowed, excess forage could be used for limited grazing in late winter or early spring. Livestock grazing will be managed on the Rio Bonito acquired lands so that a minimum of 55 percent of annual plant production will remain for plant community maintenance and wildlife use.

## **PEST MANAGEMENT**

### **Noxious Weeds**

Treatment of weed species will be coordinated and conducted with county governments. Treatments of aggressive non-native vegetation or noxious weeds on public lands will be designed to prevent their spread and to control infestations using an integrated pest management approach, based on predicted economic, ecological, and sociological effects. Chemical, mechanical, and biological methods of control will be considered. The design of projects, application of treatments, and monitoring of effects will be in accordance with the BLM's Environmental Impact Statement on Vegetation Treatment on BLM Lands and the Record of Decision for New Mexico. Refer to Appendix 9 for chemical treatment practices.

### **Insects**

Treatment of insect infestations will be coordinated with the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine, pursuant to the Memorandum of Understanding between USDA and USDI for management of grasshoppers and Mormon crickets. Integrated pest management will be employed to control infestations, based on predicted economic, ecological and sociological effects. Chemical, mechanical, and biological methods of control will be considered.

## Predator Control

The Master Memorandum of Understanding between the BLM and the Animal and Plant Health Inspection Service, Animal Damage Control (APHIS-ADC) will guide predator damage management (PDM) (also known as animal damage control-ADC) activities on public lands in the resource area. The BLM will coordinate with APHIS-ADC to provide for the welfare and perpetuation of wildlife and to be responsive to the needs of individuals or groups who use the public lands. Constraints on animal damage control in the resource area are described below.

Non-emergency ADC control activities on public lands will be limited to grazing allotments in Chaves and Lincoln counties. Emergency control will be allowed on other allotments in the resource area following confirmation of livestock loss by APHIS-ADC and when a request for control is made to the BLM.

Predator control operations will be permitted within authorized control areas identified each year during annual reviews of work plans for PDM. Planned predator control will occur only on allotments where a permittee or lessee requests control, where a loss has been reported or confirmed or there is a history of loss, and where APHIS-ADC has determined that a potential threat to vulnerable livestock is imminent. Control activities will be directed only at the depredating animal or local population, as appropriate. The following control methods will be allowed within authorized control areas:

- traps;
- snares;
- M-44s;
- calling;
- shooting;
- denning;
- aerial hunting; and,
- livestock protection collars.

In areas identified as swift fox habitat, which will be identified in the work plans for PDM, M-44s will not be used for control of predators, unless used as a tool of last resort in cases of confirmed active depredation where coyotes are likely to be the only animals taken. For purposes of this con-

straint, the area of concern is generally Chaves County, east of the Pecos River.

M-44s will not be used during hunting seasons in quail and prairie chicken hunting areas designated in work plans for PDM. For purposes of this requirement, quail and prairie chicken hunting areas generally conform to Chaves County and an area in southeastern Lincoln County.

The use of control devices (e.g., M-44s, traps and snares) will not be allowed in the following human safety zones, unless required for protection of human health or safety:

- Within one mile of any residence unless the occupant requests or approves the use of control devices;
- Within one mile of any community;
- Within 300 feet of any state or federal highway;
- Within one mile of any developed recreation site;
- Within 500 feet of BLM livestock or wildlife exclosures, water sources (e.g., tanks, streams, rivers, springs, or wildlife water developments) on public land;
- Within 300 feet of the Capitan and Big Tank/Eastwell horseback riding trails at Fort Stanton; and,
- Within 500 feet of entrances to caves in the Roswell Cave Complex ACEC or caves designated as significant under the Federal Cave Resources Protection Act.

Where control devices are used on public lands, APHIS-ADC will be required to post signs to provide adequate warning of the presence of those devices. Signs will be installed at gates commonly used as access points, and at the site of the control device, if needed to ensure proper public notification.

The use of M-44s, when authorized (refer to requirements, above), will be conducted according to EPA restrictions on placement and use. Each

M-44 device will be inspected at least once a week, weather and travel conditions permitting. Locations of M-44 devices and dates of installation will be available at the APHIS-ADC District office. M-44s will be removed within 30-days following the cessation of livestock losses in emergency control zones. Preventive control will be authorized in planned control areas as provided in EPA use restriction #7.

The use of livestock protection collars will be authorized for use only during the lambing season (generally May through August) as a tool of last resort. The use of collars will be conducted in accordance with label and use restrictions. APHIS-ADC will provide monthly reports to the BLM documenting uses of collars.

All nontarget species trapped with control devices will be released provided they are capable of self-maintenance. In accordance with APHIS-ADC policy, all leg-hold traps would use pan tension devices that exclude small, nontarget species.

The BLM's Authorized Officer will, when needed, identify areas where ADC activities on public lands should be restricted or where modification of permitted control areas should occur, when multiple use management or public health or safety reasons dictate those actions.

## CULTURAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT

### Cultural Resources

*Goal: Continue the protection of, and increase the knowledge derived from, significant archeological and historic properties known now and those discovered in the future, while providing for livestock grazing, mineral development, and other uses.*

Cultural inventory surveys will continue to be required for federal actions involving surface disturbing activities except where criteria to exempt surveys are met. These criteria are:

- Previous ground disturbance has modified the surface greatly.

- Human activity within the last 50 years has created a new land surface.
- Existing Class 2 (sample survey) or equivalent inventory data are sufficient to indicate that the environmental situation did not support human occupation.
- Availability of Class 3 {intensive survey} information of the area has been fully documented.
- Presence of a geomorphic situation that does not enhance preservation.
- A large number of negative surveys in close proximity to each other.
- Absence of criteria listed in "criteria for survey".

Eligible and potentially eligible sites will continue to be protected from damage or archaeologically treated to mitigate damage. Buffer areas of 100 feet or more will be established from the edges of sites to protect cultural resources unless the BLM determines that circumstances justify a reduced buffer area.

Approximately 20 percent of the recorded archeological sites in the resource area would be expected to be managed for conservation. The management objective for conservation will be to preserve existing archeological values. This will be achieved by protecting sites from damage by natural processes such as erosion and from man-caused damage such as illegal artifact collecting and from legally authorized surface disturbing activities. The Paleoindian sites, such as those in the Haystack Butte area would fall into this category.

Approximately five percent of the recorded archeological sites in the resource area would be expected to be managed to emphasize public values and interpretation. The management objective for public values and interpretation will be to develop archeological properties for public use. This will be achieved by scientifically treating a site, such as by excavation and developing exhibits so that the cultural property is interpreted for public recreation and education. The Garnsey

Bison Kill site near Bottomless Lakes and Lower Stanton Ruin-Feather Cave near Fort Stanton are two sites that would lend themselves to interpretation.

Approximately 75 percent of the recorded archeological sites would be expected to be managed for information use. Management will emphasize the use of cultural properties for the purpose of gaining knowledge. This will be achieved by scientifically studying the property in whatever ways are appropriate in order to extract as much information as possible. Two sites which are currently being studied are the Upper Bonito I and Lower Stanton Ruin.

An area of 3,400 acres at Haystack Butte will be nominated for a National Register Archeological District (Map 11). Management of the District will emphasize protection of the very high density of well preserved sites. A secondary emphasis will be the study of selected sites to increase knowledge of the area. Both the outright acquisition of, or conservation easements on, about 640 acres of state land and 40 acres of private land will be considered if the opportunity arose, and added to the District, bringing the total acreage to 4,080 (see Table 12). Any acquired lands will be managed according to the management prescriptions for this plan. In order to classify the cultural properties in an area, the sites will need to be studied. Once sites are selected for interpretation or for further study to increase knowledge, activity plans will be prepared and approved before implementation. The following management actions will be employed in management of the site: (See Tables 5, 7, 8, 9, 10, and 22.)

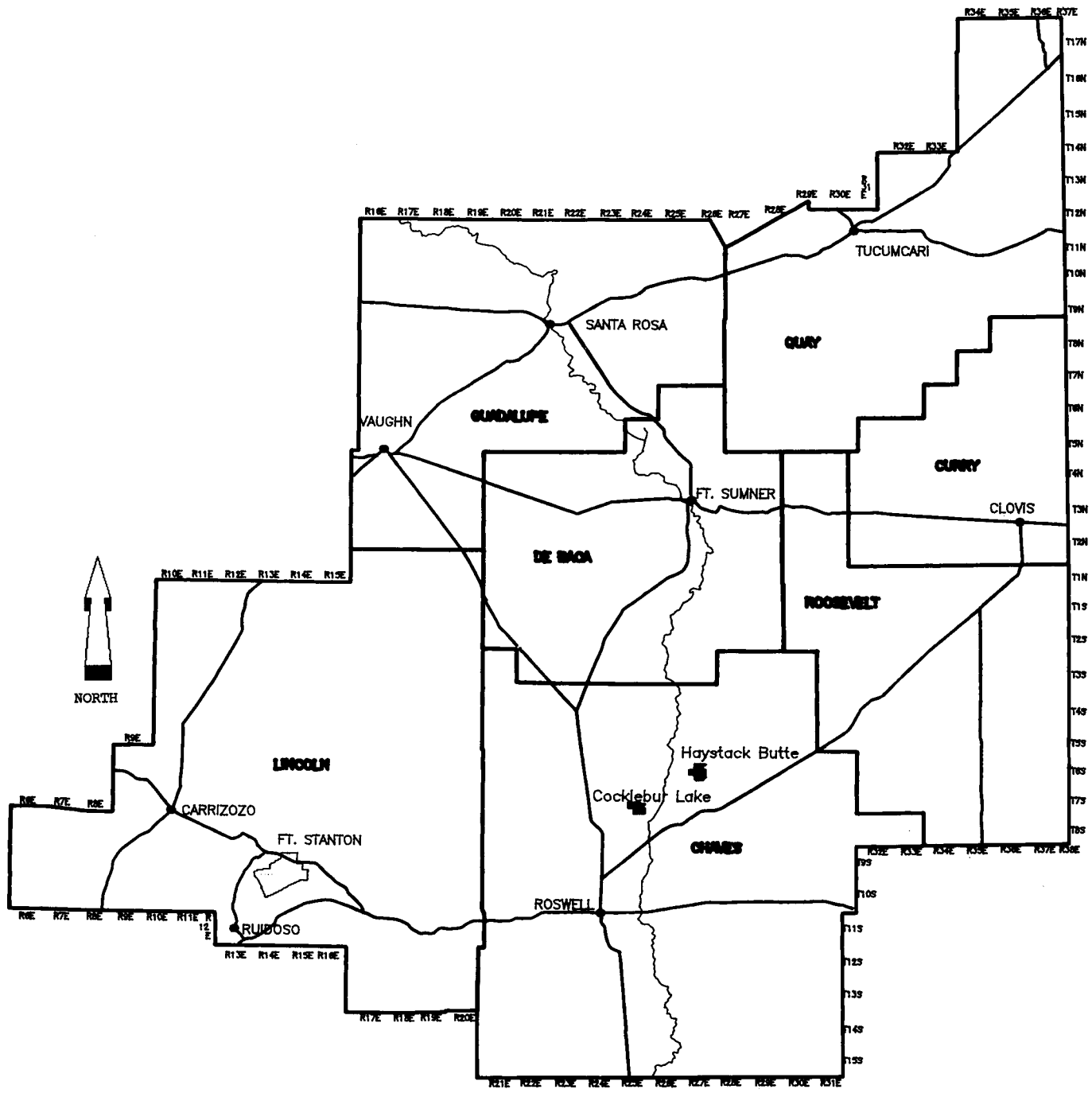
- oil and gas: lease with no surface occupancy
- locatable minerals: withdraw from entry
- solid leasable minerals: closed to leasing
- mineral materials (saleables): closed to disposal
- rights-of-way: exclusion area for major rights-of-way
- OHV designations: OHV use limited to designated roads and trails

Approximately 3,000 acres of BLM-administered land at Cacklebur Lakes will be nominated for a National Register Archeological District (Map 11). Management of the District will emphasize protection of the very high density of well-preserved sites for the primary purpose of future interpretation. A secondary emphasis will be the study of selected sites to increase knowledge of the area. The Cacklebur Lakes area will require some amount of study in order to be able to determine the level of management required for the sites. The following management actions will be employed in management of the site: (See Tables 5, 7, 8, 9, 10, and 22.)

- oil and gas: lease with no surface occupancy
- locatable minerals: withdraw from entry
- solid leasable minerals: closed to leasing
- mineral materials (saleables): closed to disposal
- rights-of-way: exclusion area for major rights-of-way
- OHV designations: OHV use limited to designated roads and trails

Approximately 360 acres of public lands at the Garnsey Bison Kill Site will be managed to protect the bison kill site and associated archeological sites (see Map 12 in the Outdoor Recreation Management section). One management goal would be to allow the public to see an archeological-paleontological site exposed in the sides of the arroyo running through the site. Some of the site would be stabilized, protecting the archeological and paleontological values. Another goal would be to generate appreciation of archeology and paleontology by developing a trail with interpretive signs and markers, and other on-site and off-site interpretive techniques. Other development of the site could include site stabilization, exhibits, and a parking area. Both the outright acquisition of, or conservation easements on, about 242 acres of private land surface and about 320 acres of state land surface will be consid





SCALE  
 1/2" = 13.5 Miles  
 BLM-Roswell District, 1994

MAP 11  
 ARCHAEOLOGICAL  
 DISTRICTS  
 Roswell Resource Area

ered to enhance the management and development of the area (see Table 12). The total acreage would then be about 880 acres. Any acquired lands would be managed according to the management prescriptions for this plan. The BLM will continue with its plans to interpret this site even if no additional lands are acquired. The following management actions will be employed in management of the site, for public surface (360 acres) and mineral estate (520 acres): (See Tables 5, 7, 8, 9, 10, and 22.)

- oil and gas: open to leasing with “no surface occupancy”
- locatable minerals: withdraw from entry
- solid leasable minerals: close to leasing
- saleable minerals: close to disposal
- rights-of-way: exclusion area for major rights-of-way
- livestock grazing: 120 acres closed to grazing
- OHV designations: 120 acres closed to OHV use; OHV use limited to designated roads and trails on 240 acres

Following a Class 3 inventory and some preliminary research, eligible sites on the acquired Rio Bonito lands will be managed for information, public values or conservation, as appropriate. The management goals would be to interpret some cultural sites for the public, research some of the sites for the information they contain and to conserve those sites that meet the criteria for conservation. If Tract 5 is acquired, an opportunity for interpretation is the early Hispanic community of Las Chosas, which would require extensive excavation and reconstruction.

There has been considerable interest in trying to identify the location of the alleged 1947 UFO crash site(s). The most commonly discussed locations are represented on maps in this document. Irrespective of location, if such an event is determined to have occurred on BLM-administered land, the BLM will interpret and protect the area(s) by:

- excluding the lands from rights-of-way location;

- withdrawing the lands from mining claim location;
- closing the lands to solid mineral leasing;
- closing the lands to disposal of mineral materials;
- leasing oil and gas with no surface occupancy stipulations; and
- closing the lands to OHV use.

The site(s) will be retained in federal ownership.

### **Paleontological Resources**

*Goal: Locate, evaluate, and classify the paleontological resources on public lands to ensure that they are given full consideration in all aspects of public land management.*

Public lands will be classified at the field level according to their potential for noteworthy occurrences of fossils. Classification will use any available sources of information, including data banks, maps, knowledge of local residents, and data from paleontologists. Classification will rank the public lands as follows:

- Condition 1: Areas that are known to contain fossil localities. Consideration of paleontological resources will be necessary if available information indicates that fossils are present in the area.
- Condition 2: Areas with exposures of geological units or settings that are likely to produce fossils. The presence of geological units from which fossils have been recovered elsewhere will require an assessment of these same units if they occur in the area of consideration.
- Condition 3: Areas that are extremely unlikely to produce fossils, based on their surface geology.

Paleontological resources will then be addressed in the BLM’s activity planning and environmental analysis processes to ensure adequate protection.

In areas classified as Condition 1 or Condition 2, where potential impacts exist from proposed surface disturbing activities, the following procedures will be employed:

- A qualified paleontologist will conduct a literature review and records survey to identify areas where fossils are known to occur in the general area of the proposed action.
- A qualified paleontologist will conduct a field survey whenever a literature review and records survey indicate that vertebrate or other noteworthy occurrences of fossils are or may be present.
- A report of findings will be prepared following the completion of the field survey, literature review and records survey.

In areas determined to have noteworthy occurrences of fossils, mitigations of surface disturbing activities will be considered. A mitigation and monitoring plan based on a report of findings will be prepared recommending the types of mitigation and intensity of monitoring needed. Mitigation may include:

- avoiding fossils by redesigning or relocating a proposed project
- complete or partial salvage of the fossil(s)
- obtaining representative samples of the fossils from the project area

Management of paleontological resources will include making them available for uses such as scientific collection and research, educational and interpretive activities, and recreation.

The BLM will promote consistency among federal agencies having paleontological resource management responsibilities, and facilitate the exchange of information between federal, state, and local governments and scientific organizations concerned with the management, study, and protection of these resources.

The BLM will continue to afford the protection provided under law to fossils of scientific interest

and work to increase the awareness of federal land managers and the public regarding paleontological resource management.

## OUTDOOR RECREATION MANAGEMENT

### Recreation Management

*Goal: Ensure the continued availability of outdoor recreation opportunities and experiences. Protect the health and safety of visitors and natural, cultural, and other resource values. Stimulate public enjoyment of public land and resolve user conflicts.*

Permits for commercial hunting, outfitting, and guiding operations will be issued resource area-wide. Special Recreation Use Permits (SRUPs) will be issued for other organized and commercial activities in accordance with BLM guidelines and policies. Pertinent sections of the Roswell District Conditions of Approval (Appendix 2) will be applied to approvals for SRUPs.

The rules of conduct listed in Appendix 10 will be applied to all public lands in the Roswell Resource Area.

The Valley of Fires Recreation Area will continue to be managed for intensive use with emphasis on maintaining and upgrading the existing facilities. The planned development includes a visitor center, shower facilities, trail development, and campground expansion.

The BLM will identify recreational and interpretive opportunities in the Roswell Resource Area for future development and implementation in accordance with national and state goals, policies and guidelines. Developments could include facilities such as trails for non-motorized use, day use and camping areas, overlooks and waysides.

The Mescalero Sands ACEC, Fort Stanton ACEC, Overflow Wetlands ACEC, Roswell Cave Complex ACEC, Mescalero Sands North Dune OHV Area, Haystack Mountain OHV Area, Garnsey Bison Kill Site, Rio Bonito acquired lands, Billy the Kid Recreation Site and Valley of Fires Recreation Area will be designated Special Recreation Management Areas (refer to Map 12).

The public lands not designated Special Recreation Management Areas will be designated an Extensive Recreation Management Area (ERMA).

At the Valley of Fires Recreation Area, approximately four miles of additional hiking trails will be developed to provide access from the campground through the lava flow to the Cooper Cabin. Other recreation facilities, trails and roads at the Valley of Fires Recreation Area will be developed and maintained in accordance with the established plan for the area. About 337 acres of private land on the east side of the presently developed area will be considered for acquisition in order to provide space for future expansion of the developed area.

Lands acquired along the Rio Bonito near Lincoln (Tracts 1-4) will be managed for low intensity recreational use. All low-intensity recreation activities, including hunting, will be considered during development of a site-specific management plan. Recreation activities that will be emphasized are fishing, nature viewing and non-trail hiking. The development of two small day-use areas on Tracts 1 and 4 will be considered. Development at these sites would include graveled access roads and parking areas. If Tract 5 is acquired, future intensive development will be considered, including the possible development of a full-service campground of 25 to 50 sites. Livestock grazing will be excluded from the Tract 5 site.

The Billy the Kid Recreation Site (80 acres of BLM-administered land) will be managed and developed for a day-use area, with emphasis on providing access to the Pecos River and fishing. Development could include trails, picnic sites, roads and interpretive displays. Livestock grazing will be excluded from the site.

The Garnsey Bison Kill Site will be managed as an outdoor archaeological and paleontological classroom with emphasis on cultural and natural resource protection. Development could include exhibits, stabilization, self-guided interpretive trails, interpretive stations, and a parking area. (Refer to the "Cultural and Paleontological Resource Management" section for more discussion of this area.)

An 86-mile route along State Highway 246 from Roswell to Capitan will be developed and designated a Back Country Byway and a Lands Management Highway. Additional byways or lands management highways will be identified and evaluated for future designation and development. Future designations will be considered for roads or trails having high scenic value, unique geologic formations, botanical or biological features, historical or archaeological features, water attractions or other features with high public value.

The areas listed below and in Table 6 will be closed to the leasing of oil and gas.

- Mathers Research Natural Area

The areas listed below and in Table 5 will be open to the leasing of oil and gas with "no surface occupancy."

- Border Hill NNL
- Mescalero Sands North Dune OHV Area and entrance corridor
- Haystack Mountain OHV Area
- Valley of Fires Recreation Area
- Billy the Kid Recreation Site


The areas listed below and in Table 7 will be proposed for withdrawal from entry or appropriation under the public land laws, including the general mining laws.

- Little Black Peak and Carrizozo Lava Flow WSAs
- Border Hill NNL
- Haystack Mountain OHV Area (staging area)
- Valley of Fires Recreation Area
- Billy the Kid Recreation Site

The areas listed below and in Table 8 will be closed to the leasing of solid minerals.

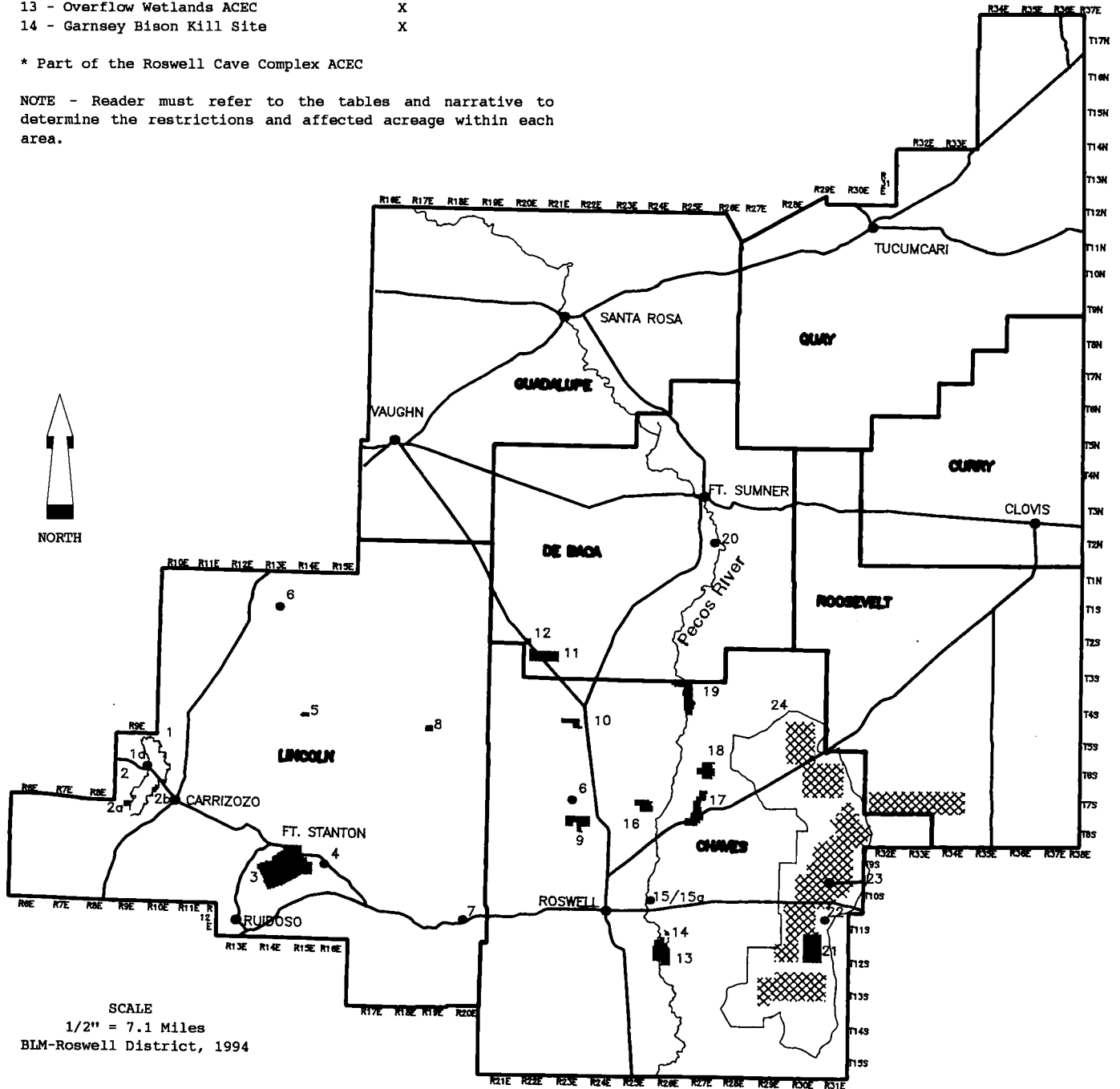
- Little Black Peak and Carrizozo Lava Flow WSAs
- Border Hill NNL
- Valley of Fires Recreation Area
- Haystack Mountain OHV Area
- Mescalero Sands North Dune OHV area
- Billy the Kid Recreation Site

# Special Recreation Management Areas (SRMAs)

1 - Little Black Peak WSA	Not Applicable	15 - Bat Hole Cave*	X
1a - Millrace Cave*	X	15a - Comanche Hill	Not Applicable
2 - Carrizozo Lava Flow WSA	Not Applicable	16 - Cacklebur Lakes Arch. District	Not Applicable
2a - Crockett Cave*	X	17 - Haystack Mountain OHV Area	X
2b - Valley of Fires Recreation Area	X	18 - Haystack Butte Arch. District	Not Applicable
3 - Fort Stanton ACEC	X	19 - North Pecos River ACEC	Not Applicable
4 - Rio Bonito Acquired Lands	X	20 - Billy the Kid Recreation Area	X
5 - Zia Christine Cave*	X	21 - Mescalero Sands ACEC	X
6 - Alleged UFO Crash Sites	Not Applicable	22 - Mescalero Sands North Dune OHV Area	X
7 - Border Hill NNL	Not Applicable	23 - Mathers RNA	Not Applicable
8 - Torgac Cave*	X	24 - Caprock WHA	Not Applicable
9 - Angora-Corn Cave*	X		
10 - Martin-Antelope Gyp Cave*	X		
11 - Crystal Caverns-Devil's Well*	X	 - Core Prairie Chicken Habitat	Not Applicable
12 - Coachwhip Cave*	X		
13 - Overflow Wetlands ACEC	X		
14 - Garnsey Bison Kill Site	X		

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the restrictions and affected acreage within each area.



MAP 12  
**SPECIAL RECREATION  
 MANAGEMENT AREAS**  
 Roswell Resource Area

The areas listed below and in Table 9 will be closed to the disposal of mineral materials (saleable minerals).

- Little Black Peak and Carrizozo Lava Flow WSAs
- Border Hill NNL
- Haystack Mountain OHV Area
- Mescalero Sands North Dune OHV area
- Mathers Research Natural Area
- Billy the Kid Recreation Site
- Valley of Fires Recreation Area

The areas listed below and in Table 10 will be excluded from major rights-of-way.

- Rio Bonito acquired lands
- Mathers Research Natural Area
- Valley of Fires Recreation Area
- U.S. Highway 380 corridor through the Carrizozo Lava Flow (applies to overhead power and telephone lines)
- Little Black Peak and Carrizozo Lava Flow WSAs
- Border Hill NNL

The areas listed below and in Table 11 will be avoided when locating major rights-of-way.

- Mescalero Sands North Dune OHV Area (applies to overhead power and telephone lines)
- Haystack Mountain OHV Area (applies to overhead power and telephone lines)

## Interpretation

The primary objective in the Roswell Resource Area's interpretive program would be to assist visitors in developing a keen awareness, appreciation and understanding of the areas they visit. The second objective would be to encourage thoughtful use of the natural resources available in the resource area to reduce impacts on natural resources. The final objective would be to promote a public understanding of BLM goals and objectives.

The main emphasis for interpretation will be placed on the Valley of Fires Recreation Area,

Mescalero Sands North Dune OHV Area, Fort Stanton and the caves in the resource area (see Table 21). Emphasis will also be placed on off-site interpretive programs.

Tools used to accomplish these objectives may include: interpretive trails, exhibits, literature, way-sides, environmental education, special populations programs, visitor and information stations, auto tours, campfire talks and guided walks, and the use of volunteers as docents.

## Cave and Karst Resource Management

*Goal: To protect cave values while allowing for limited recreational, commercial and educational use. Research and scientific use would have priority over other uses.*

Commercially-guided cave trips will continue to be allowed in Roswell Resource Area caves on a case-by-case basis. No more than 20 percent of total cave use in the resource area will be allotted to commercial use.

Big-Eared Cave, Malpais Madness, Corn Sink Hole, and Tres Ninos caves will be closed to visitor use annually from November 1 to April 15 to protect significant bat hibernacula. Seasons of use and visitor use restrictions will be applied to any other caves or portions of caves found to have significant bat hibernacula or nurseries.

Depositing human waste will not be allowed in any of the resource area's caves. Each cave user will be responsible for disposing of human waste in an approved receptacle. Smoking and spitting of chewing tobacco will be prohibited in all significant caves in the resource area.

Visitor use limits, seasons of use, and a permit system will be established for all caves where the entrance is on public land and cave resources are being affected by visitor use.

Surface disturbance will not be allowed within up to 200 meters of known cave entrances, passages or aspects of significant caves, or significant karst features. Refer to Appendix 1 for more information on this requirement.

**TABLE 21  
RESOURCE INTERPRETATION OPPORTUNITIES  
ROSWELL RESOURCE AREA**

<b>Special Management Area</b>	<b>Proposed Interpretive Themes</b>
Billy the Kid Recreation Site	Wise Use of Public Lands
Border Hill National Natural Landmark	The Making of a Mountain
Dunahoo Hills OHV Area	Multiple Use Management of Public Lands
Fort Stanton	Historic and Prehistoric Settlements
Garnsey Bison Kill Site	Plains Indians Subsistence: Prairie, River and Mountain
Haystack Mountain OHV Area	Sandstone and All-Terrain Vehicles
Mathers RNA	Benefits of the Shinnery Oak Community
Mescalero Sands	Drifting Sands, Endemic Plants and Wildlife
Mescalero Sands North Dune OHV Area	Tread Lightly and Safely
Non-specific Use Areas	Land Use Ethics and Minimum Impact Use
Rio Bonito	Life in the Bonito Valley
Roswell Caves	Cave Ecosystems and Hazards
Valley of Fires Recreation Area	Fire, Thunder and Smoke in the Tularosa Basin

**Off-Highway Vehicle (OHV) Management**

*Goal: Manage OHV use to provide adequate access and reduce adverse impacts on sensitive resource values. Provide quality recreational opportunities for OHV users in conjunction with demand and safety concerns.*

Inventories, public review, and transportation planning will be conducted to support road-by-road designations for roads and trails suitable for off-highway vehicle use. Designations are listed in Tables 22 and 23 and shown on Map 13. All roads and trails not otherwise categorized will be designated limited to designated roads and trails for off-highway vehicle use. Pending completion of formal designations, all roads and trails will be managed as limited to existing roads and trails for off-highway vehicle use.

Until implementation plans are prepared for public lands where OHV use is limited or closed, waivers of restrictions will be considered on a

case-by-case basis for activities such as maintenance of permitted range improvements, geophysical exploration, pipeline construction or maintenance, access for individuals with physical disabilities, or oil and gas operations. Any waiver must be considered and approved by the Authorized Officer in advance of the proposed use. Plans for implementing OHV use restrictions (activity plans) will be developed with public participation. The plans will describe how OHV use restrictions would be applied, will clarify permitted, licensed, emergency and official use activities, and will describe the conditions under which waivers of OHV use restrictions would be considered.

The closed-to-off-highway-vehicle-use designation on the Comanche Hill area "A" (660 acres) and area "C" (240 acres) will be retained, to help protect the scenic views from U.S. Highway 380, and to prevent waterfowl disturbance at the Bitter Lake National Wildlife Refuge.

**TABLE 22**  
**OFF-HIGHWAY VEHICLE MANAGEMENT DESIGNATIONS**  
**ROSWELL RESOURCE AREA**

Designation	Areas	Acres
<b>CLOSED</b>	Alleged UFO Crash Sites <sup>1/</sup>	3,680
	Border Hill NNL	150
	Carrizozo Lava Flow and Little Black Peak WSAs	25,312
	Comanche Hill "A" Area	660
	Comanche Hill "B" Area	883
	Comanche Hill "C" Area	240
	Feather Cave Archeological Complex	330
	Fort Stanton ACEC: Rio Bonito, and Salado Creek Area	250
	Fort Stanton ACEC: Trails (105 miles)	51
	Garnsey Bison Kill Site	120
	Mathers RNA	242
	Mescalero Sands ACEC	2,478
	Overflow Wetlands ACEC	1,040
	Playa and Alkali Lakes	2,000
	Roswell Cave Complex ACEC <sup>2/</sup>	890
	Springs and Seeps	240
	Valley of Fires Recreation Area	400
<b>Total Closed</b>		<b>38,966</b>
<b>LIMITED TO DESIGNATED ROADS OR TRAILS</b>	Billy the Kid Recreation Site	80
	Cocklebur Lakes Archeological District	3,000
	Dunahoo Hills (ATVs less than 50 in.)	640
	Fort Stanton ACEC	23,999
	Garnsey Bison Kill Site	240
	Haystack Butte Archeological District	3,400
	Haystack Mountain OHV Area (ATVs less than 50 in.)	3,500
	Mescalero Sands ACEC	5,410
	Overflow Wetlands ACEC	2,100
	North Pecos River ACEC	3,360
	Pecos River Floodplain	19,200
	Remainder of Resource Area	1,372,392
	Rio Bonito Acquired Lands	1,100
	Roswell Cave Complex ACEC	11,394
Valley of Fires Recreation Area	63	
<b>Total Limited</b>		<b>1,449,878</b>
<b>OPEN</b>	Mescalero Sands North Dune OHV Area	1,546
<b>Total Open</b>		<b>1,546</b>

<sup>1/</sup> Two alleged sites. <sup>2/</sup> Includes an additional 480 acres that fall within Wilderness Study Area OHV closures that are not reflected in the Cave ACEC closures summary.

Source: BLM files, 1994.



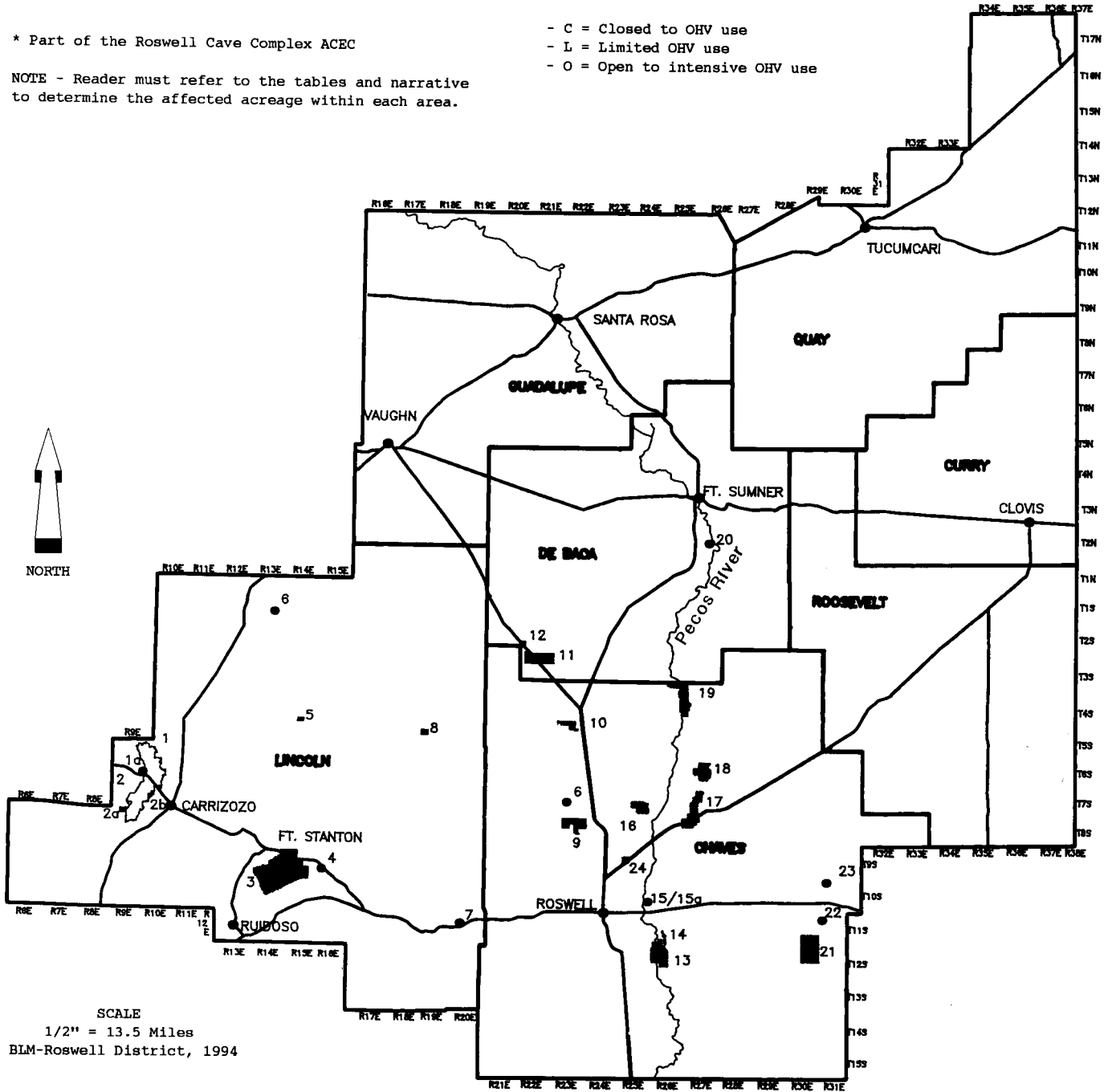
# OHV Designations

1 - Little Black Peak WSA	C	12 - Coachwhip Cave*	C/L
1a - Millrace Cave*	C/L	13 - Overflow Wetlands ACEC	C/L
2 - Carrizozo Lava Flow WSA	C	14 - Garnsey Bison Kill Site	C/L
2a - Crockett Cave*	C/L	15 - Bat Hole Cave*	C
2b - Valley of Fires Rec. Area	C/L	15a- Comanche Hill	C
3 - Fort Stanton ACEC	C/L	16 - Cocklebur Lakes Arch. District	L
4 - Rio Bonito Acquired Lands	L	17 - Haystack Mountain OHV Area	L
5 - Zia Christine Cave*	C/L	18 - Haystack Butte Arch. District	L
6 - Alleged UFO Crash Sites	C	19 - North Pecos River ACEC	L
7 - Border Hill NNL	C	20 - Billy the Kid Recreation Area	L
8 - Torgac Cave*	C/L	21 - Mescalero Sands ACEC	C/L
9 - Angora-Corn Cave*	C/L	22 - Mescalero Sands North Dune OHV Area	O
10 - Martin-Antelope Gyp Cave*	C/L	23 - Mathers RNA	C
11 - Crystal Caverns/ Devil's Well Caves*	C/L	24 - Dunahoo Hills	L

\* Part of the Roswell Cave Complex ACEC

NOTE - Reader must refer to the tables and narrative to determine the affected acreage within each area.

- C = Closed to OHV use  
 - L = Limited OHV use  
 - O = Open to intensive OHV use



MAP 13  
 OHV DESIGNATIONS  
 Roswell Resource Area

**TABLE 23**  
**ROSWELL CAVE COMPLEX ACEC**  
**OFF-HIGHWAY VEHICLE DESIGNATIONS<sup>1/</sup>**  
**ROSWELL RESOURCE AREA**

Cave System	Acres Closed	Acres Limited	Total Acres
Angora-Corn	150	4,650	4,800
Bat Hole	40		40
Coachwhip	40	574	614
Crockett	20	620	640
Crystal Caverns-			
Devil's Well	50	6,350	6,400
Martin-Antelope Gyp	50	2,350	2,400
Millrace	480 <sup>2/</sup>	160	640
Torgac	40	600	640
Zia Christine	20	620	640
<b>Totals</b>	890	15,924	16,814

<sup>1/</sup> There are no public lands in the ACEC designated as open to OHV use.

<sup>2/</sup> Approximately 480 acres of the Millrace Cave System are within the Little Black Peak WSA, which is closed to OHV use.

Source: BLM files, 1994.

The Haystack Mountain and Mescalero Sands North Dune OHV areas will continue to be managed for intensive OHV use, with emphasis on providing a high quality, safe play area.

The Mathers RNA (242 acres) will be closed to OHV use, except for two existing roads, which will be classified as limited to designated roads or trails.

Public lands within the present boundaries of the Carrizozo Lava Flow and Little Black Peak WSAs (25,321 acres) will be designated closed to off-highway vehicle use to protect outstanding semi-primitive values. Any state or private lands acquired within the present boundaries of the WSA's will be designated closed to OHV use. Public land and acquired state or private lands adjacent to the WSAs will be designated limited to designated roads and trails for OHV use to provide access and limit impacts to fragile soils and vegetation.

The Mescalero Sands North Dune OHV Area will be enlarged to approximately 1,553 acres, and will be designated open and managed for intensive OHV use, with emphasis on providing a quality play area for OHV's. Approximately 410 acres of private land will be considered for acquisition. An area of about 400 acres south of U.S. Highway 380 between the highway and the OHV area will be used as an entrance corridor to the area. This area will be open to oil and gas leasing with "no surface occupancy." Upgrades and development could include interpretive and safety displays with emphasis on the National Tread Lightly Program, sun shelters, rest rooms and potable water, and boundary signing. Livestock will be fenced-out from about 20 acres around existing and planned developments.

The Haystack Mountain OHV Area will be enlarged from its present 3,500 acres to approximately 9,600 acres by acquiring 2,360 acres of state lands and 3,440 acres of private lands. Prior to the enlargement of the area, an easement about 50 feet by 100 yards in size will be acquired through two parcels of state land to provide access to the northern portion of the OHV area. The lands acquired for the OHV area will be managed according to the management prescription of the current Haystack Mountain OHV Area.

The Haystack Mountain OHV Area will be managed as an OHV Intensive Use Area and designated limited to designated roads and trails for all-terrain vehicles less than 50 inches in width. Non-motorized use of the Haystack Mountain OHV Area will be allowed. Facilities would be considered for development, such as rest rooms, sun shelters, trails, interpretive displays and picnic sites. Boundary signs will be installed.

Approximately 400 acres in the Valley of Fires Recreation Area will be designated closed to protect the viewshed from the existing campground and nature trail. The remainder of the area, 63 acres in the developed area, will be designated limited to designated roads and trails for off-highway vehicle use for maintenance needs and future campground development.

The Rio Bonito acquired lands (Tracts 1-4) will be designated limited to designated roads and trails for OHV use to protect riparian values. Tract 5, if acquired, also would be designated limited to designated roads and trails.

The 150-acre Border Hills National Natural Landmark will be designated closed to off-highway vehicle use to protect the integrity of the geologic structure.

Approximately 120 acres of the 360 federal acres at the Garnsey Bison Kill site (the core area) will be designated closed to off-highway vehicle use to protect the archaeological and paleontological sites. The remaining 240 federal acres and any acquired lands will be designated limited to designated roads and trails to protect the watershed above the bison kill site. (Refer to the "Cultural and Paleontological Resource Management" section for more discussion of this area.)

Approximately 3,000 acres in the proposed Cocklebur Lakes National Register Archeological District and about 3,400 acres in the proposed Haystack Butte National Register Archeological District will be designated limited to designated roads and trails for off-highway vehicle use.

Following inventory, if it is deemed necessary to protect a significant cave from OHV impacts, a cave enclosure will be constructed and the area within the enclosure will be designated closed to off-highway vehicle use.

A 640-acre OHV area in the Dunahoo Hills northeast of Roswell would be established, if demand warrants, and be designated limited to all-terrain vehicle use.

The 80-acre Billy the Kid Recreation Site would be designated limited to designated roads and trails for OHV use, to protect recreational values.

Approximately 19,200 acres of public lands along both sides of the Pecos River will be designated limited to designated roads and trails for OHVs to protect the floodplain, riparian zone and wetlands.

Approximately 2,000 acres encompassing 56 playas and alkali lakes, and the area within 200

meters of the playas and alkali lakes will be designated closed to off-highway vehicle use.

Approximately 640 acres encompassing the area within 200 meters of the source of about 20 springs or seeps, or within downstream riparian areas created by flows from the source or resulting from riparian area management, will be designated closed to off-highway vehicle use.

The Comanche Hills "B" Area (approximately 883 acres) will be designated closed to OHV use to protect scenic views from U.S. Highway 380 and to reduce the disturbance of waterfowl at the Bitter Lake National Wildlife Refuge.

### **Wilderness Management**

*Goal: Manage the Wilderness Study Areas (WSAs) in a manner that leaves the wilderness characteristics such as naturalness, outstanding opportunities for solitude and primitive or unconfined types of recreation unimpaired for future use and enjoyment.*

The two Wilderness Study Areas, which total 25,312 acres, will continue to be managed under the Interim Management Policy and Guidelines for Land Under Wilderness Review until the areas are added to the National Wilderness Preservation System or removed from further wilderness consideration. If designated as wilderness, the areas will be managed under the Wilderness Management Policy.

As opportunities arise, the BLM will pursue the acquisition of about 10,000 acres of state and private lands in and adjacent to the WSAs, to enhance manageability and to provide unimpaired access.

If not designated wilderness, nearly the entire Little Black Peak and Carrizozo Lava Flow areas will be closed to oil and gas leasing (refer to the Fluid Mineral Management section in this plan for more information). Those areas also will be managed for roadless recreational opportunities.

If Congress does not designate the WSAs as wilderness, a recommendation will be made to Congress that the Little Black Peak and the Carrizozo Lava Flow areas (not necessarily the WSAs) be designated a National Conservation Area.

Trailhead parking areas adjacent to the WSAs and a limited, primitive trail system about two miles in length will be developed to the Little Black Peak cinder cone and to the Lower Windmill area in the southeast corner of Little Black Peak WSA. The development of a trail into or across the lava flow from the Valley of Fires Campground will be considered, as well. In each case, legal access will be acquired prior to development of a trail system. Development of these trails will comply with the nonimpairment criteria of the “Interim Management Policy and Guidelines for Lands Under Wilderness Review” and the “Wilderness Management Policy.”

### **Wild and Scenic Rivers Management**

There are no stream or river segments in the resource area recommended for nomination for inclusion in the National Wild and Scenic River System (refer to Appendix 2 in the Draft Roswell RMP/EIS).

### **Visual Resource Management**

*Goal: Manage public lands to protect and maintain the quality of the scenic (visual) values of these lands, while allowing for livestock grazing, mineral development and production, and other uses.*

Visual resources generally will be managed to meet the Visual Resource Management (VRM) classes. All proposed management activities will be evaluated with regard to visual resource management and those projects that are compatible with the character of the natural landscape will be encouraged. No management actions are proposed that would improve or degrade visual quality to the extent that a change in any VRM class will result. Existing VRM classes are discussed in Chapter 3 of the Draft Roswell RMP/EIS and in the Glossary. The management of visual quality in special resource management areas is summarized in Table 24.

Painting of oil field equipment and structures, and other surface facilities or equipment approved by the BLM will be conducted according to the requirements of Notice to Lessees (NTL) 87-1, New Mexico.

### **Recreation Opportunity Management**

*Goal: Manage public lands to protect and maintain recreation opportunity, while allowing for livestock grazing, mineral development and production and other uses.*

Recreation opportunity will be managed so that opportunities categorized by the Recreation Opportunity Spectrum (ROS) would be maintained. No management actions are proposed that would improve or degrade recreation opportunity to the extent that a change in any ROS category would result. Existing ROS classes are discussed in Chapter 3 of the Draft Roswell RMP/EIS (see Table 99) and in the Glossary. The management of recreation opportunity in special resource management areas is summarized in Table 24.

### **WATERSHED MANAGEMENT**

During periods of drought or other emergencies, adjustments in livestock numbers will be made to guard against damage to vegetation and soil resources.

Where soils and nontarget vegetation are disturbed, reclamation measures will be taken. These measures could include returning the land to as near its natural form as possible and re-seeding with mixtures of grasses and forbs to prevent erosion.

If any new roads or trails are proposed, they will be constructed only if existing roads and trails cannot be used, and then only after a site-specific environmental assessment has been prepared.

### **Soil Management**

*Goal: Provide benefits and prevent damage to other resources by managing soil resources.*

Best Management Practices (BMPs) will be used to minimize sedimentation as a cause of nonpoint source pollution in surface waters. The

**TABLE 24**  
**SUMMARY OF VISUAL RESOURCE MANAGEMENT**  
**AND RECREATION OPPORTUNITY SPECTRUM ACREAGES**  
**IN SPECIAL RESOURCE MANAGEMENT AREAS**  
**ROSWELL RESOURCE AREA**

Special Resource Management Area	VRM <sup>1/</sup> Class	ROS <sup>1/</sup> Class	Acres in Class
Mescalero Sands North Dune OHV	II & I	R	1,500
Mescalero Sands ACEC	I	RN-R	7,886
Mescalero Sands ONA	I	RN-R	N/A
Mescalero Sands Recreation Complex	II & IV	RN-R	N/A
Mathers RNA	I	RN-R	241
Fort Stanton ACEC	II & III	RN-R	24,630
Overflow Wetlands ACEC	II	RN-R	2,987
Haystack Mountain OHV	III	RN-R	3,500
Valley of Fires Recreation Area	I & III	SPN-R	1,074 <sup>2/</sup>
Little Black Peak WSA	I	RN-R	15,072 <sup>2/</sup>
Carrizozo Lava Flow WSA	I	SPN-RN-R	20,240 <sup>2/</sup>
Billy the Kid Recreation Site	IV	N/A	80
Rio Bonito	III	RN	2,000
North Pecos River ACEC	IV	RN-R	3,360 <sup>3/</sup>
Garnsey Bison Kill Site	I	R	360
Cocklebur Lakes Arch. District	IV	RN-R	3,000
Haystack Butte Arch. District	III	RN-R	3,400
Roswell Cave Complex ACEC			
Angora-Corn	IV	RN-R	4,800
Bat Hole	II	R	40
Coachwhip	III	R	614
Crockett	I	R	640
Crystal	I & IV	R	2,280
Martin	IV	RN-R	2,080
Millrace	I	SPN-R	480
Torgac	IV	R	480
Zia	IV	R-RN	480
Border Hill NNL	III	R	150
Dunahoo Hills	III	R-RN	640

<sup>1/</sup> Refer to Glossary for definitions of VRM and ROS management classes.

<sup>2/</sup> BLM, private and state surface ownerships <sup>3/</sup> BLM and private surface ownerships  
VRM management will not be applied to state and private lands unless the lands are acquired by BLM

Source: BLM files, 1994.

BMPs, based on standard operating procedures, oil and gas lease stipulations or BLM policy, will be specified in activity plans for actions that make soils more susceptible to erosion, or which impair soil productivity. Full consideration will be given to environmental benefits and economic costs of the BMPs. Activities requiring implementation of BMPs will include, but would not be limited to:

- soil disturbing activities that result in soil loss due to accelerated wind or water erosion;
- activities that reduce vegetative cover, thus exposing the soil to erosion processes, and reducing the amount of soil organic matter and soil productivity;
- activities that tend to concentrate surface runoff or steepen hydraulic gradients, thus increasing soil erosion by flowing water;
- activities that result in sediment loading directly to streams;
- activities that damage soil structure by compaction or other means; and
- activities that degrade the physical, chemical, or biological properties of the soil, such as high-intensity burns, contamination by toxic substances, or other means.

Surface disturbance will not be allowed on slopes over 20 percent or on fragile soils. The slope restriction will not apply to livestock grazing. Refer to Appendix 1 for more discussion of this requirement.

### **Surface Water Management: Quantity**

*Goal: Increase water availability by enhancing annual water yields, instream flows, and discharge from springs, while also reducing resource damage by floods and accelerated erosion.*

Strategic watershed management plans will be developed and implemented for watersheds that are susceptible to severe long-term soil losses or gully erosion, and which have a high potential to

respond to treatment.

Plans will be developed for the following watersheds susceptible to severe long-term soil loss (i.e. mean annual soil loss over the delineated area is estimated to be 1.0 ac-ft/mi<sup>2</sup>/yr or more), shown on Map 41, in Chapter 3 of the Draft Roswell RMP/EIS:

- Rio Bonito including Salado Creek;
- Pecos River (from confluence of Yeso Creek to Bitter Lake National Wildlife Refuge); and,
- the closed drainage area to Nakee Ishee Lakes.

Plans also will be developed for the following watersheds susceptible to severe gully erosion, shown on Map 41, in Chapter 3 of the Draft Roswell RMP/EIS:

- Rio Bonito including Salado Creek;
- Arroyo del Macho;
- Gallo Arroyo;
- Feliz River.

As part of the watershed management plans prepared for these six watersheds, site-specific prescriptions will be written which could include, but not be limited to, the following practices: (1) mechanical, chemical, or prescribed fire vegetation treatments; (2) plantings of native riparian plant species and seeding of herbaceous ground cover; (3) livestock grazing management by controlling livestock numbers and season of use, and by providing alternative water and mineral sources, after consultation, cooperation, and coordination with the permittee or lessee and other interested parties; (4) construction of erosion, sediment and flood control structures; (5) use of other methods determined most suitable for site-specific conditions; (6) implementation of a monitoring program, including a feedback loop which will guide management based on monitoring information.

After consultation, cooperation, and coordination with the permittee or lessee and other interested parties, springs and seeps, playas, and sinkhole lakes on public lands will be developed to improve wetland and riparian habitat, and to increase water availability. Water sources will be priori-

tized for development based on the following criteria:

- Presence of threatened or endangered species;
- Potential habitat for threatened or endangered species;
- Presence of perennial water or ephemeral water for extended periods;
- Presence of native riparian vegetation;
- Significant ground-water recharge areas;
- Limited alternative water sources in the area for wildlife and livestock;
- Federal ownership of both surface and subsurface estates.

Water source developments could include, but are not limited to:

- Protective enclosures;
- Native riparian plantings;
- Construction of supplemental water pipelines;
- Control of undesirable vegetation; and
- Off-site livestock waters.

### **Surface Water Management: Quality**

*Goal: Maintain or improve the quality of surface waters to support all designated uses listed by the New Mexico Water Quality Control Commission. Water quality would be based on the general and specific stream standards outlined by the WQCC.*

Further degradation of water quality will be prevented whenever practicable to meet present or possible future demands, such as domestic or municipal water supplies, irrigation, livestock, wildlife, recreation, aquatic and riparian habitat, and other uses. Exceptions will be possible when water quality standards more stringent than state

and federal standards would result in increased economic costs.

Best Management Practices will be developed in activity plans for actions that degrade surface water quality through nonpoint source pollution. The primary emphasis of BMPs will be on preserving water quality. Surface water quality parameters that would be addressed in BMPs include, but are not limited to: water temperature, turbidity, sediment transport and yield, chemical loading, and nutrient loading.

Due to “checkerboard” ownership in watersheds, management on BLM-administered lands alone may not be adequate to support designated stream uses. Where appropriate, cooperative agreements, MOUs, or other interagency efforts could be made to manage entire watersheds to maintain or improve water quality.

### **Groundwater Management**

*Goal: Maintain or improve groundwater quality to meet applicable state and federal standards.*

Further degradation of groundwater quality will be prevented whenever practicable, even when WQCC standards allow for further degradation. Exceptions will be considered for areas specifically exempted by state or federal authority or when water quality standards more stringent than state and federal standards would result in increased economic costs.

Best Management Practices will be developed on a case-by-case basis for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with 10,000 mg/l total dissolved solids (TDS) or less. The primary emphasis of BMPs will be on preserving water quality. Groundwater quality parameters that would be addressed in BMPs include, but are not limited to: TDS, pH, volatile organic compounds, and heavy metals.

For any site proposed for pesticide treatment, the potential for groundwater contamination will be evaluated with the EPA rating system, DRASTIC (Aller et al. 1985). If the site proposed for treatment has a DRASTIC index greater than 100, it has a moderate to high potential for groundwater contamination, and will require a more detailed

analysis prior to a decision being made on the proposed treatment. Factors that will be studied further include: pesticide solubility, mobility, speciation, and degradation, and highly localized recharge areas.

## **Water Rights Management**

*Goal: Protect existing public land water supplies, which include federal reserved water rights and state appropriative water rights. Comply with state water law to acquire and perfect water rights needed to carry out multiple-use management.*

Actions proposed by the BLM will be evaluated for potential effects on water resources. The New Mexico State Engineer Office (SEO) will be consulted to ensure that BLM water rights are maintained, and that other users' water rights are not adversely affected.

Water use proposals filed with the SEO by entities other than the BLM that could affect water rights and uses on public lands will be evaluated for their impact on BLM water resources. Actions that will impair the quality of public land resources would be protested through procedures specified by the SEO.

The acquisition or protection of water rights will be prioritized according to the following list (in descending order of importance):

1. Streams or rivers with special designation by Congress.
2. Other streams or rivers.
3. Springs.
4. Wells.
5. Natural water holes, playas, and sinkholes.
6. Reservoirs greater than 10 ac-ft capacity.
7. Reservoirs less than 10 ac-ft capacity.

Water rights held by the BLM will be maintained primarily through:

- Beneficial use, and maintenance of manmade diversions, where appropriate. The SEO will be notified of all water uses and relevant public land authorities. Proposals that require the use of BLM-held water would in-

clude specific provisions for meeting these requirements, prior to approval by the BLM Authorized Officer.

- Other opportunities, such as MOUs, water marketing, leasing, or other coordinated efforts, according to existing law.

## **AIR RESOURCE MANAGEMENT**

The management of public lands will emphasize the maintenance of the Class II air quality in the resource area. Mitigations will be developed on a case-by-case basis to reduce or eliminate the effects of BLM-approved surface disturbing activities on air quality. Likewise, BLM-initiated activities, such as prescribed fires, will be designed to have minimal effect on air quality and to retain the Class II air quality standard.

## **WILDLIFE HABITAT MANAGEMENT**

### **Special Status Species Habitat Management**

*Goal: Provide protection and recovery for all federal and state-listed species. Manage occupied and potentially suitable habitat for federal and state-listed species on public land to maintain or enhance populations. Manage habitat for federal candidate species to avoid degrading habitat and further listing by either state or federal governments while allowing for mineral development and production, livestock grazing, and other uses compatible with special status species habitat management.*

Refer to Appendix 11 for listing of Special Status Species occurring or potentially occurring in the Roswell Resource Area.

The shortgrass aspect, which corresponds to the Grasslands community type, will be maintained for special status species which require this habitat type, including the mountain plover and Baird's sparrow. Control of mesquite, cholla, snakeweed, creosote will be employed as a means of maintaining the habitat.

U.S. Fish and Wildlife Service Recovery Plans will be implemented, including the reintroduction of native special status species in suitable areas on



public land in coordination and cooperation with local governments. Current plans cover the American peregrine falcon, SW bald eagle, Pecos gambusia, Kuenzler hedgehog cactus, Pecos bluntnose shiner, interior least tern and black-footed ferret.

Prairie dog towns support several special status species, including the Arizona black-tailed prairie dog, western burrowing owl, mountain plover, and ferruginous hawk. The towns provide potential habitat for black-footed ferrets. Prairie dog towns will be protected from major surface disturbing activities, such as rights-of-way, and road or facility construction. Surface disturbance will not be allowed within prairie dog towns (refer to Appendix 1). Existing populations of prairie dogs will be maintained by not allowing control measures to be conducted in prairie dog towns by APHIS-ADC or grazing allottees. Maintenance of existing developments will be allowed on a case-by-case basis.

The construction of fence enclosures or barriers will be considered in crucial or critical habitat for federal threatened and endangered, federal candidate, or state-listed wildlife and plant species to protect all or portions of occupied habitat, specific populations, or to provide for scientific research on a species and its habitat. The intent of using fences in this manner is to protect small areas, as opposed to fencing-out large areas of public lands. It is expected that enclosures or barriers, if used, will be small in size and associated with specific sites.

The federal mineral estate along the Canadian River in Quay County (totalling about 4,900 acres), will be managed to support protection of habitat for the Arkansas River shiner. Management will include the application of the surface use and occupancy requirements (Appendix 1), closure to the leasing of solid minerals, possible closure to the disposal of mineral materials, and restrictions on the exploration for and development of locatable minerals. Use restrictions will be applied as needed to protect habitat. As a result, the entire range of restrictions may not be applied to every acre of federal mineral estate. These practices could be applied to major tributaries of the Canadian, as well, if needed to protect shiner habitat.

## **Big Game/Upland Game Habitat Management**

*Goal: Maintain or improve habitat utilized by big game or upland game to provide sufficient quantity and quality of habitat (food, water, cover, space) necessary for population maintenance and expansion on public land, while providing for livestock grazing, mineral development and production, and other uses compatible with big game/upland game habitat management.*

Big game habitat expansion and movement will be enhanced as opportunities arise by undertaking one or more of the practices listed below. These practices apply primarily to fences built for livestock control and highway right-of-way fences. Fences or enclosures constructed to keep livestock or wildlife out of certain types of facilities, such as oil and gas production facilities (e.g. pits or tank batteries), would be exempt from the fence modifications described below, unless the fence itself becomes a hazard, due to its design or condition. These fences may be modified to prevent losses to both wildlife and livestock.

- Replacing existing netwire fences with barbed wire fences to facilitate the movement of wildlife between pastures;
- Installing pronghorn passes in netwire fences;
- Removing netwire fences on allotments converted from sheep to cattle;
- Lowering fences that exceed 42 inches in height;
- Removing extra strands of barbed wire to meet BLM standard 4-strand fence specifications;
- Removing extra top strands of barbed wire from netwire fences to prevent entanglement of mule deer;
- Considering terrain, forb and browse diversity, and pasture size and shape, when developing or redesigning pasture configurations;

- Disallowing the installation, or replacing, netwire fences along highway rights-of-way crossing public lands if not required for ranching operations;

Existing habitat management plans (HMPs) will be revised, as needed, to incorporate changes resulting from decisions made in this RMP. Modifications in existing HMPs will include public participation and review. Actions in existing habitat management plans will continue to be implemented.

Wildlife habitat developments and other management practices will be considered for use in improving mule deer habitat in the BLM's Mescalero Sands, Pecos River, Southwest Roswell, Cedar Hills, Fort Stanton, and Carrizozo mule deer management areas. Developments and practices include, but are not limited to:

- Construction of water developments for wildlife and livestock;
- Use of prescribed fire;
- Fuelwood sales;
- Fence modifications and exclosures;
- Aerial surveys of habitat and deer populations;
- Use of exclusion areas or buffer zones in brush control projects; and
- Modification of grazing systems, following consultation, cooperation and coordination with affected permittees or lessees, and other interested parties.

The construction of fence exclosures or barriers will be considered to protect special habitat features such as wildlife waters, springs, natural mineral licks, significant lesser prairie chicken booming grounds, or to provide for scientific research on a species and its habitat.

Prescribed burns will be conducted in selected pinon-juniper community types at Fort Stanton and the Cedar Hills area west of Roswell. For each prescribed burn the acreage to be burned

and the objective of the fire will be tied to wildlife habitat management and desired plant community management objectives described in activity plans.

Surface disturbance will not be allowed within up to 200 meters of existing or planned wildlife habitat improvement projects. Refer to Appendix 1 for more information on this requirement.

Big game and upland game transplants or reintroductions on public lands will be conducted when cooperatively prescribed by the BLM and the NMDGF, following consultation and coordination with affected permittees or lessees and interested parties. Projected transplants or reintroductions include, but are not limited to:

- Pronghorn in pastures that meet the suitability criteria (see Appendix 12 in the Draft RMP/EIS);
- Mule deer in areas of low population density or in areas to enhance deer herd gene pools;
- Wild turkey at Fort Stanton and on the Rio Bonito acquired lands;
- Other big game or upland game species recommended by the New Mexico Department of Game and Fish.

If opportunities arise, acquisitions of non-federal lands will be considered in the following instances, to improve management of big game. Acquisitions in the Caprock deer management area would benefit special status species and raptor habitat management goals, as well.

- Caprock WHA: 18,969 acres of state land; 8,840 acres of private land
- Cedar Hills and Pecos River deer management areas: 3,521 acres of state land
- Rio Bonito area: 279 acres of state land

Geophysical exploration operations, drilling for oil and gas, and other development will not be allowed in lesser prairie chicken habitat during the period of March 15 through June 15, each year.

Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Refer to Appendix 1 for more discussion of these requirements.

Core prairie chicken habitat areas will be avoided when locating major rights-of-way. Refer to Table 11.

### **Waterfowl Habitat Management**

*Goal: Perpetuate a diversity and abundance of waterfowl populations in the Central Flyway by protecting and enhancing wetlands, including playa lakes, alkali lakes, sinkhole lakes and earthen tanks, while allowing a level of livestock grazing and mineral development and production that would not decrease waterfowl habitat and populations.*

As many as 400 acres of wetland habitat in suitable areas within the floodplain of the Pecos River will be developed for waterfowl habitat. Suitability criteria include but are not limited to:

- Areas with seasonal surface waters indicative of a high water table or subsurface clay layer;
- Areas with the potential of supporting cottonwood tree groves;
- Areas that have or would receive vegetation manipulation projects (saltcedar control, prescribed fire, riparian pasture development).

Surface disturbance will not be allowed within up to 200 meters of active heronries. Refer to Appendix 1 for more discussion on this requirement.

Agricultural practices and moist soil management techniques will be used to enhance yearlong food supplies for wildlife on the lands acquired along the Rio Bonito. These practices may include but are not limited to:

- Share cropping of valuable foods (alfalfa, winter wheat, barley, pasture grasses) with a portion left as a standing crop for wildlife;

- Seasonal flood irrigation;
- Construction of irrigation ponds and wells;
- Construction of boundary and pasture fences;

Livestock grazing on the acquired Rio Bonito lands will be considered during the development of a management plan for the area, to determine if grazing should occur and under what conditions it would be allowed. Grazing preference will not be established and grazing will be used as a tool to accomplish the objectives of the management plan.

The construction of fence enclosures or barriers will be considered to protect all or portions of important wetland and riparian habitat, irrigation ponds and earthen tanks, and significant playas or alkali lakes.

### **Raptor Habitat Management**

*Goal: Provide suitable raptor habitat conditions on public lands through the conservation and management of essential habitat components, including habitat for prey species while allowing for livestock grazing and mineral development and production that would not degrade habitat components.*

Nesting, migration, and wintering areas for raptors will be managed on about 926,000 acres of public lands in the Macho, Caprock, Fort Stanton and Overflow Wetland wildlife habitat areas, and along the Pecos River. Management of habitat will be focused on designated Key Raptor Areas and those identified in the future. Management practices could include developing protective fence enclosures or barriers around special habitat features such as tree groves and sinkholes, or around all or portions of important nesting areas, and constructing raptor nesting platforms. Surface disturbance will not be allowed within up to 200 meters of active raptor nests on special, natural habitat features, such as trees, large brush, cliff faces and escarpments. Refer to Appendix 1 for more discussion of this topic.

## Fisheries and Aquatic Habitat Management

*Goal: Manage aquatic habitat and associated natural diversity and distribution patterns of native nongame and sport fish, invertebrates, and aquatic mammals, while allowing for livestock grazing and mineral development and production that would not degrade aquatic habitat.*

Construction of streambank stabilization structures, fish habitat structures, native riparian plantings, riparian pastures, saltcedar control, and spring and drainage protection could be allowed for the Rio Bonito, Salado Creek and the Pecos River. Criteria for consideration include, but are not limited to, areas that:

- Exhibit streambank sloughing;
- Lack riparian vegetation or regeneration;
- Exhibit invasion of exotic or undesirable plant species;
- Exhibit erosion of side drainages;
- Lack riparian pastures to control livestock use.

Monitor lotic and lentic systems for:

- Compliance with established water quality standards;
- Fish and macroinvertebrate productivity and composition;
- Stream channel substrate condition as it relates to watershed condition;
- Use of water rights, where established.

Native fish and sport fish introductions or transplants will be undertaken in suitable waters located on public land, in coordination with the New Mexico Department of Game and Fish. Proposed introductions include but would not be limited to:

- Rainbow, cutthroat, brown, and brook trout in the Rio Bonito;
- Bass and bluegill in irrigation ponds.

Criteria for suitable waters include, but are not limited to:

- Availability of perennial water;
- Presence of existing populations indicative of suitable habitat conditions that may need supplementing due to fishing pressure;
- No or low populations in stream segments with suitable habitat conditions (water flow, temperature, stream shading, pools & riffles, stable streambanks, water quality, substrate condition, invertebrates);
- Channel dimension and capacity.

The construction of fence enclosures or barriers will be considered to protect all or portions of important stream reaches, springs and seeps, riparian plantings, or irrigation ponds.

## Riparian/Wetland and Playa Lake Management

*Goal: Restore and maintain riparian/wetland areas to achieve proper functioning condition. Allow for livestock grazing, mineral development and production, and other uses that would not degrade or impair the proper functioning condition of riparian habitat. Achieve an advanced ecological status, except where resource management objectives would require an earlier successional stage.*

Riparian and wetland areas will be managed to achieve an advanced ecological status, except where resource management objectives, including proper functioning condition, would require an earlier successional stage. The objective of management would be to improve riparian and wetland habitat on public lands that is nonfunctioning or functioning at risk, and maintain habitat that is in proper functioning condition. Management will be conducted even if factors beyond the BLM's control, such as flow regulations or channelization, contribute to unacceptable conditions.

Lands within 200 meters of the source of springs and seeps, and within downstream riparian areas created by flows from the source, or through

riparian area management, will be considered for withdrawal from all forms of entry under the public land laws, including the general mining laws. Areas to be withdrawn will be prioritized according to one or more of the following criteria:

- Presence of threatened or endangered species that rely on the source;
- The spring or seep is located in a Special Recreation Management Area;
- The spring or seep is important for maintaining crucial or critical wildlife habitat.

If additional springs or seeps meeting these criteria are identified, they will be prioritized and considered for withdrawal, after processing of the initial list of springs and seeps was completed.

Surface disturbance will not be allowed within up to 200 meters of playas and alkali lakes, perennial streams, rivers and floodplains and springs and seeps. Refer to the Surface Use and Occupancy Requirements in Appendix 1 for more discussion on these requirements.

Springs and seeps, reservoirs and earthen tanks, important stream reaches, and significant playa and alkali lakes may be enhanced by constructing such things as protective fence enclosures or barriers, planting native vegetation, establishing vegetation for wildlife cover, controlling undesirable vegetation, constructing supplemental water pipelines to specific sites, and providing off-site livestock water. (A list of springs is in the revised Table 102, in the Proposed RMP.)

If opportunities arise, acquisition will be considered for 590 acres of state land and 1,051 acres of private land within or adjacent to playa lakes, and for 1,440 acres of state land and 2,955 acres of private land along the Pecos River. Any acquisitions in these areas will benefit riparian, wetland and playa lake management efforts.

## FIRE MANAGEMENT

*Goal: Limit damage to natural resources and to life and property caused by wildfire. Wherever possible, restore fire to its natural role in the ecosystem through the use of prescribed fire.*

*Use prescribed fire as a tool for land treatment to replace or augment the use of chemical and mechanical treatments.*

The construction of fire line with heavy equipment (e.g., bulldozers or graders) will be employed only:

- To protect property and public health and safety; or
- In exceptional cases (such as in saltcedar or in previously disturbed areas);
- With the approval of the Area Manager; and
- With the appropriate resource advisor(s) on the scene.

Management of areas burned by wildfires will be determined on a case-by-case basis, including the need for rehabilitation, for deferment of livestock grazing, and for other actions, such as emergency OHV closures. Considerations affecting management of burned areas include size and intensity of fire, type of vegetation burned, vegetation management objectives, and the management and use of the area prior to being burned.

### Prescribed Fire

Prescribed fires ignited by the BLM will be conducted, including the re-treatment of acreage previously burned, when burning conditions are appropriate (refer to the definition of "prescription" in the Glossary in the Proposed RMP). For each prescribed burn, the acreage to be burned and the objective of the fire will accomplish specific land management objectives identified in activity plans by specialists in one or more of the resource area's management programs. Prescribed fires generally are tied to vegetation management objectives based on vegetation types, which are: saltcedar; upland grasslands; pinon/juniper invasion areas; and areas of sacaton. Prescribed fire will be used, when possible, to treat vegetation as part of the process of attaining the identified desired plant community for a given area.

Prescribed natural fire will be employed to accomplish land management objectives when the following criteria are met:

- fire planning for the use of prescribed fire has been completed, including establishing burning prescriptions and boundaries of areas to be burned, and coordination with affected landowners and other affected interests;
- ignitions occur in the period February through May;
- funding already has been programmed for planned prescribed fires and adequate personnel and equipment are available to achieve defined objectives;
- ignitions occur in saltcedar along the Pecos River or other drainages; in juniper at Fort Stanton east of State Highway 214; in areas of sacaton; and in upland grassland communities.

### Protection from Wildfire

Resource advisors will be on hand to provide advice on tactics employed during suppression under either the conditional or full fire suppression response levels.

Archeological site data on base maps and in site records will be reviewed to determine the location and significance of cultural resources before using heavy equipment to construct fire line, except where personal safety or property are threatened, or when resource values outweigh cultural values. Wherever possible, an archeologist will monitor the use of heavy equipment to ensure that cultural resources are avoided.

The protection of wetlands and surrounding habitat for waterfowl and T&E fish in the Overflow Wetlands will be accomplished without the use of bulldozers and other heavy equipment, or chemical fire retardant.

The conditional fire suppression response level will be applied resource area-wide, with the following exceptions, where full suppression would be used.

- Protection of life or property, in any situation.

- Pecos River: Protect important vegetation, such as cottonwoods and willows, in riparian/wetland habitat within the 100-year floodplain. Limited use of machines, such as bulldozers, may be required, based on the advice of a resource advisor. For fires in saltcedar, resources such as bulldozers or chemical fire retardant could be employed to limit the spread of fire to the smallest possible area.
- Caprock WHA: For wildfires occurring in treated pastures in the months of April through January, full suppression may be employed to protect wildlife habitat. In February and March, and depending on the location of the fire relative to previous vegetation treatments, suppression activities may occur at the conditional level and may be limited to monitoring the wildfire.
- Fort Stanton: Protection of the Kuenzler hedgehog cactus, and the entrance of Fort Stanton Cave, will be accomplished with full suppression, except that heavy equipment will not be used to construct fire line.
- Playas larger than 20 acres, springs and seeps, other riparian areas: Fire suppression will include protection of these areas from surface disturbance and the effects of chemical fire retardant, by prohibiting the use of heavy equipment and retardant drops in riparian areas. The use of engines will be allowed, keeping off-road use to the minimum needed to fully suppress the fire.
- Caves and karst areas: Fire suppression in cave and karst areas will include protection of caves, cave resources and karst features from surface disturbance by prohibiting the use of bulldozers and other heavy equipment to construct fire line within 200 meters of known cave entrances, passages or aspects of significant caves, or significant karst features.
- Valley of Fires Recreation Area: Protection of the recreation area will be accomplished without the use of heavy equipment to construct fire line.

- Border Hills Structural Zone National Natural Landmark: The use of heavy equipment to construct fire line within this area will be prohibited.
- Steep slopes: Fire line will not be constructed with bulldozers or other heavy equipment on slopes greater than 20 percent, or greater than 10 percent on fragile soils, except to protect life or property.

## HAZARDOUS MATERIALS MANAGEMENT

For BLM-authorized activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills into the environment. The transportation storage, and handling of hazardous materials will be conducted in accordance with manufacturers' specifications and applicable laws, such as the Resource Conservation and Recovery Act and the Emergency Planning and Community Right-To-Know Act.

The sale or transfer of public lands on which storage or disposal of hazardous substances has been known to occur will require public notification of the type and quantity of such substances.

Bureau of Land Management-administered public land sites contaminated with hazardous wastes will be reported, secured, cleaned up, or otherwise remedied according to applicable federal and state regulations and contingency plans. Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed in federal and state regulations. If at all possible, the responsible parties will bear the financial burden of cleanup and resource damage costs.

If hazards are identified on BLM-administered public lands, the BLM will provide appropriate warnings and establish precautions for safety hazards associated with the use of those lands.

The BLM will conduct its own activities in a manner that reduces the amount or toxicity of waste generated from those activities.

## AREAS OF CRITICAL ENVIRONMENTAL CONCERN

**The boundaries of the ACECs described below have been established based on the presence of resources and opportunities for efficient management, irrespective of land ownership. The inclusion of other ownerships in ACECs is for purposes of disclosure and does not mean those lands would be designated as part of an ACEC, or that the management proposed in this plan would be applied to those lands. The acquisition of non-federal lands within ACECs is part the management included in this plan. If non-federal lands are acquired, those lands could then become part of a designated ACEC and be managed according to the management proposed in this plan, without additional land use planning.**

*See Map 14 for the locations of the proposed ACECs. Refer to Appendix 13 in the Draft RMP/EIS for discussions of relevance and importance criteria for Areas of Environmental Concern. Refer to Appendix 12 in this document for maps of the ACECs.*

### Overflow Wetlands ACEC

The Overflow Wetlands ACEC comprises 6,814 surface acres and 3,000 acres of federal mineral estate. The surface acreage consists of the following categories and acreages:

Public land, 2,987 acres  
 State land, 1,720 acres  
 Private land, 2,107 acres

#### Management Goal:

*Protect the biological and scenic values of the Overflow Wetlands WHA, which provides critical habitat for T/E fish species and supports a significant riparian/wetland plant community.*

#### Management Prescriptions:

About 700 acres of wetlands, 170 acres of buffer around the wetlands, and 170 acres of escarpment will be protected by applying "no

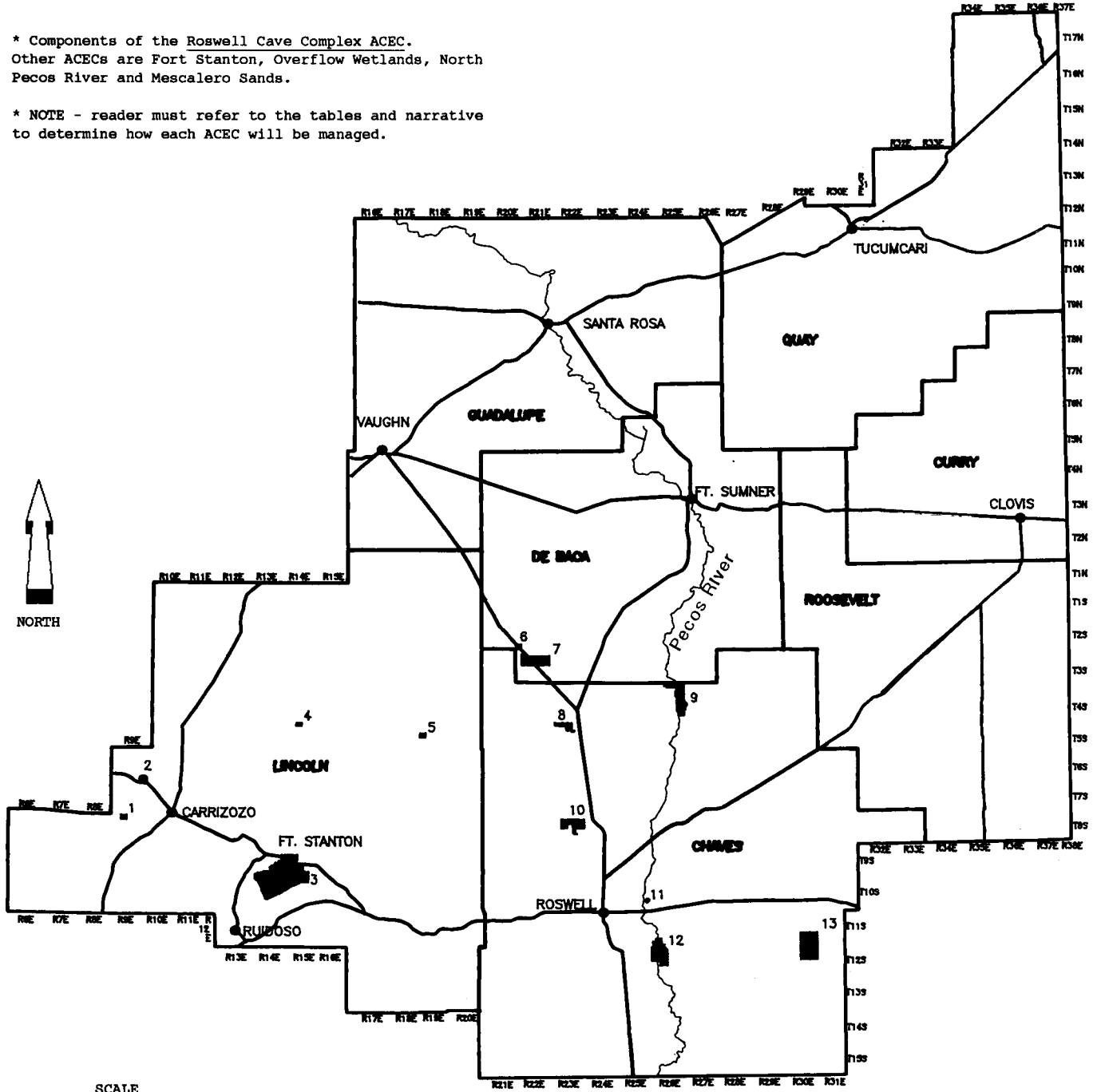
# ACECs

- 1 - Crockett Cave\*
- 2 - Millrace Cave\*
- 3 - Fort Stanton
- 4 - Zia Christine Cave\*
- 5 - Torgac Cave\*
- 6 - Coachwhip Cave\*
- 7 - Crystal Caverns/Devil's Well Caves\*

- 8 - Martin-Antelope GYP Cave\*
- 9 - North Pecos River
- 10 - Angora-Corn Cave\*
- 11 - Bat Hole Cave\*
- 12 - Overflow Wetlands
- 13 - Mescalero Sands

\* Components of the Roswell Cave Complex ACEC.  
 Other ACECs are Fort Stanton, Overflow Wetlands, North Pecos River and Mescalero Sands.

\* NOTE - reader must refer to the tables and narrative to determine how each ACEC will be managed.



SCALE  
 1/2" = 13.5 Miles  
 BLM-Roswell District, 1994

MAP 14  
 PROPOSED AREAS OF CRITICAL ENVIRONMENTAL CONCERN



surface occupancy” restrictions to future oil and gas leases. The remainder of public lands in the ACEC will be open to future leasing with subject to the Surface Use and Occupancy Requirements described in Appendix 1.

About 700 acres of wetlands, 170 acres of buffer around the wetlands, and 170 acres of escarpment will be closed to the disposal of salable minerals and to the leasing of solid minerals, and will be withdrawn from entry under the land laws (including the 1872 Mining Law). These actions will reduce disturbance of the wetlands and surrounding habitat for wildlife species dependent on the area either seasonally (wintering waterfowl) or yearlong (T/E fish).

Major rights-of-way would be excluded on about 3,000 acres of public land with the Overflow Wetlands WHA to benefit wildlife species dependent on the area either seasonally (wintering waterfowl) or yearlong (T/E fish).

Legal access (easements) to the Overflow Wetlands will be acquired to resolve conflicts and enhance management in situations where existing roads that originate from county or state roads are interrupted by private or state land inholdings.

The need for acquiring easements will be evaluated on a case-by case basis, because land acquisitions may eliminate the need for some easements.

About 1,700 acres of state land and 1,600 acres of private land with riparian/wetland values will be acquired if opportunities arise. Any lands acquired will be managed according to the prescriptions of this plan.

Public grazing leases or permits affecting about 3,000 acres of public land currently in Allotments 65060, 65062, and 65069 will be adjusted to improve habitat for wintering waterfowl habitat. Adjustments may include changes in stocking rate and seasons of use, such as reducing year-long grazing to grazing between March 1 and June 30. The grazing lease on Allotment 65041 will be cancelled.

Saltcedar treatments will be conducted on public land in selected riparian-wetland areas using pre-

scribed fire, or mechanical or chemical controls, except that chemicals will not be applied aerially.

The Overflow Wetlands ACEC will be developed to showcase one of New Mexico's prime wetland areas. Developments may include nature trails with wooden walkways and observation overlooks, restroom facilities, picnic tables, trash containers, parking areas, bulletin boards, and up-grading existing access roads.

About 700 acres of wetlands, 170 acres of buffer around the wetlands, and 170 acres of escarpment will be designated closed to OHV use. The use of OHVs on about 2,100 acres will be limited to designated roads and trails.

The BLM will recommend to the New Mexico Department of Game and Fish that the wetlands be designated as a “No Minnow Seining Area” to prevent the taking of the Pecos pupfish.

Public fishing opportunities will be considered for development along the Pecos River on public lands in the areas listed below. Development may include physical access to fishing sites, parking areas, and fence crossings.

T. 12 S., R. 26 E.,  
Section 5: W1/2W1/2  
Section 17: W1/2NE1/4,SE1/4  
Section 20: NE1/4NE1/4NE1/4

The ACEC generally will continue to be open to waterfowl hunting, but hunting may be limited to certain areas. A closure to waterfowl hunting on public lands within one-half mile of the sandhill crane roost at the Southwest Pond will be proposed to the New Mexico Department of Game and Fish, in order to protect that important crane roosting area. Other human disturbances on public lands in that zone will be closed or restricted from October through March. Other areas within the ACEC could be restricted or closed to hunting in the future. Any actions involving hunting, hunting restrictions, or special designations, will be coordinated with the New Mexico Department of Game and Fish. Fences could be constructed around the Southwest Pond to delineate the restricted area, and on other lands that may require special management.

Riparian and aquatic habitats will be protected by acquiring water rights, entering into cooperative agreements for management of those habitats, or other methods.

As many as 300 acres of additional riparian/wetland habitat will be developed. Development may include constructing low berms and dikes, seeding or planting native riparian vegetation, and modifying existing channels. Suitability criteria for development include, but are not limited to:

- Areas with seasonal surface waters indicative of a high water table or subsurface clay layer
- Areas with the potential of supporting cottonwood tree groves
- Areas that have been or would be subject to vegetation manipulation (saltcedar control, prescribed fire, riparian pasture development)

Chemical fire retardant and heavy equipment such as bulldozers and road graders will not be used for wildfire suppression.

### **North Pecos River ACEC**

The North Pecos River ACEC comprises 6,400 surface acres and 4,200 acres of federal mineral estate. The surface acreage consists of the following categories and acreages:

Public land, 3,360 acres  
State land, 1,160 acres  
Private land, 1,880 acres

#### Management Goal:

*Protect the biological and scenic qualities of the Pecos River ACEC, which provides critical habitat for T/E fish species and supports a significant riparian plant community.*

#### Management Prescriptions:

About 2,080 acres of federal minerals will be closed to future oil and gas leasing. About 2,120 acres of federal minerals will be open to future leasing with No Surface Occupancy.

About 4,200 acres of federal minerals will be closed to the disposal of salable minerals and the leasing of solid minerals, and be withdrawn from entry under the land laws (including the 1872 Mining Law), to eliminate surface disturbance along the Pecos River and in surrounding wildlife habitat.

Public lands in the ACEC will be designated right-of-way avoidance areas for major rights-of-way.

Legal access (easements) to the Pecos River ACEC will be acquired to resolve conflicts and enhance management in situations where existing roads that originate from county or state roads are interrupted by private or state land inholdings. The need for acquiring easements will be evaluated on a case-by-case basis, because land acquisitions may eliminate the need for some easements.

About 1,160 acres of state land and 1,880 acres of private land with riparian/wetland values will be acquired if opportunities arise. Acquisition of riparian/wetland habitat will be based on the consideration of the criteria in Appendix 5.

Public grazing leases or permits affecting about 3,360 acres of public land will be adjusted to improve riparian habitat. Adjustments may include changes in seasons of use and stocking rates. Grazing practices will be modified on lands within the ACEC that are currently in Allotments 64038, 64039, 64538, and 65001.

Saltcedar control will be conducted on about 600 acres of public land in selected riparian-wetland areas, using prescribed fire, or mechanical or chemical controls, except that chemicals will not be applied aerially.

The use of OHVs will be limited to designated roads and trails on about 3,360 acres.

The BLM will recommend to the New Mexico Department of Game and Fish the designation of the wetlands as a "No Minnow Seining Area," to prevent the taking of the Pecos bluntnose shiner. Additionally, the BLM will monitor the habitat of this fish in coordination with the USFWS.

## **Mescalero Sands ACEC**

The Mescalero Sands ACEC comprises 10,007 surface acres and 7,931 acres of federal mineral estate. The surface acreage consists of the following categories and acreages:

Public land, 7,888 acres  
State land, 1,799 acres  
Private land, 320 acres

### Management Goal:

*Protect the biological, archaeological and scenic qualities of the Mescalero Sands ACEC, with emphasis on the preservation of a portion of the shinnery oak-dune community to enhance the biodiversity of the ecosystem.*

### Management Prescriptions:

The entire federal mineral estate in the ACEC will be closed to future oil and gas leasing.

The entire federal mineral estate in the ACEC will be proposed for withdrawal from entry under the public land laws, including the 1872 Mining Law. The ACEC also will be closed to solid mineral leasing and the disposal of salable minerals.

Major rights-of-way will be excluded from the ACEC to protect active dunes and surrounding habitat.

Legal access to the ACEC will be acquired, as needed, to resolve conflicts and enhance management. Easement acquisitions will be evaluated on a case-by-case basis, because the potential acquisition of land may eliminate the need for easements.

As many as 1,800 acres of state and 320 acres of private lands in the ACEC will be considered for acquisition if opportunities arise. Any land acquired will be managed according to the management prescriptions in this plan.

The existing 1,838-acre grazing exclusion area will be eliminated. The fence on the east side of the grazing exclusion area will no longer be maintained by the BLM because the continually shift-

ing sands render portions of the fence ineffective at any given time, adding to high maintenance costs and difficulty in driving to and through the area. Livestock grazing preference still will not be allocated on the 1,838 acres, and on about 600 additional, adjacent acres (see Map A12-6).

The legal description of the area is:

T. 12 S., R. 30 E., Sec. 1,  
T. 12 S., R. 30 E., Sec. 11, east of the existing fence,  
T. 12 S., R. 30 E., Sec. 12,  
T. 12 S., R. 31 E., Sec. 6, W1/2,  
T. 12 S., R. 31 E., Sec. 7, W1/2

No additional range improvements or vegetation treatments geared toward livestock production will be permitted in the ACEC. Maintenance and replacement of existing range developments, such as fences or pipelines, will be allowed. Projects designed for resource enhancement or protection will be considered.

The existing National Natural Landmark designation on 3,208 acres of federal, state and private land and the existing Outstanding Natural Area designation on 6,173 acres of federal land will be retained. Each of these areas is totally encompassed by the ACEC.

Approximately 2,438 acres will be designated closed to the use of OHVs. The closure conforms to the area on which grazing preference will not be established, described above. Refer to Map A12-6. In the remainder of the ACEC, OHV use will be limited to designated roads and trails.

## **Fort Stanton ACEC**

The Fort Stanton ACEC comprises 24,630 surface acres and 27,622 acres of federal mineral estate. The state-owned hospital and prison and the Sierra Blanca Airport within the boundary of the ACEC are not included in the acreage of the ACEC.

### Management Goal:

*Protect the biological, archaeological and scenic qualities of Fort Stanton, while providing for quality recreation opportunity.*

### Management Prescriptions:

Management of the Feather Cave National Register site will emphasize off-site interpretation of its religious significance while allowing for the protection of fragile cultural values. The site will be managed in conjunction with the recreation management program, which proposes to close the cave to recreational use.

Lower Stanton Pueblo Ruin is an architectural site located very close to Feather Cave. Currently, this site is being used by Eastern New Mexico University as an archeology field school. An interpretive site at Lower Stanton Pueblo Ruin will be developed and managed in conjunction with the recreation management program to interpret Feather Cave and other cultural resources in the area. Development will occur after sufficient data recovery has been completed.

Fort Stanton Cave will be closed annually to recreation use from November 1 to the following April 15, to protect hibernating bat populations.

Feather Cave will be closed to all visitor use, except for administrative or research purposes, to protect the significant bat hibernacula and to protect visitors from extreme safety hazards associated with breakdown, vertical entrances and histoplasmosis.

Recreation developments at Fort Stanton, including trails and camping areas, will continue to be maintained or upgraded, when needed, to meet requirements for visitor health and safety.

All public lands in Fort Stanton will be open to saleable mineral disposal, except for approximately 330 acres in the Feather Cave Archeological Complex. All public lands in Fort Stanton will remain withdrawn from the general mining laws, and closed to the disposal of leasable minerals and to the leasing of oil and gas.

Major rights-of-way will be excluded on about 24,630 acres of public land to protect important plant and animal habitat, significant riparian, wetland and aquatic habitats, and visual quality.

As many as 1,320 acres of private and state lands adjacent to Fort Stanton will be acquired if op-

portunities arise. Any acquired lands will be managed according to the prescriptions of this plan.

Livestock grazing will be considered to the extent it would be used as a tool to accomplish management plan objectives. Livestock grazing will be limited or excluded in riparian pastures, highly erodible areas, cave entrances, campgrounds and day-use areas, and sensitive archeological sites. Livestock grazing will be excluded from the Feather Cave Archeological Complex. No grazing preference will be established.

Saltcedar treatments will be conducted on as many as 300 acres of selected riparian/wetland habitat along the Rio Bonito and Salado Creek using prescribed fire, mechanical control (chain saws), or chemicals, except that chemicals will not be applied aerially.

Prescribed burns will be conducted in selected pinon-juniper, riparian and grassland community types at Fort Stanton to improve wildlife habitat and reduce fuels. Fuelwood sales will be permitted in selected areas.

Two overlooks will be considered for development on the north and south sides of the historical Fort to interpret the history of the Fort's structures and area, in conjunction with the Boots and Saddles initiative.

Approximately 330 acres around the Lower Stanton Ruin and Feather Cave will be managed to preserve, protect and interpret unique archeological values, artifacts and architectural features. The area will be called the Feather Cave Archeological Complex. In addition to the management prescribed for the Fort Stanton ACEC that would also apply to the Archeological Complex, the following specific management actions will be applied, as well:

- recreation development will be considered, such as trails to Lower Stanton ruin and Indian Shelter Cave, signs, an interpretive shelter, rest rooms, and a parking area;
- off-site and on-site interpretation will be considered, including site stabilization for interpretive enhancement, exhibits, and signing and brochures.

Fort Stanton will be designated a Special Recreation Management Area with emphasis on providing quality recreational opportunities subordinate to the management of riparian and wildlife resources.

Existing recreation facilities will continue to be maintained and upgraded as needed to meet health and safety standards. The development of a campground, including location, size and types facilities, will be considered during the preparation of a comprehensive ACEC/SRMA management plan.

In addition to the 40 miles of multi-use trails already in use, about 45 miles of existing roads or trails and about 20 miles of new trails will be developed and maintained as multi-use trails for hiking, horseback riding and mountain bikes. These trails, comprising about 51 acres, will be closed to the use of OHVs.

Camping at Fort Stanton will be managed by:

- Permitting “vehicle campers” (those who drive motorized vehicles to a campsite) to drive no more than 100 feet off a BLM-designated road or trail to a campsite. But, in no case will camping be allowed within 100 feet of the Rio Bonito and Salado Creek. About 250 acres will be closed to the use of OHVs in these areas.
- Permitting back country camping throughout Fort Stanton, except within 100 feet of the Rio Bonito and Salado Creek and no closer than 300 yards of any seeps or springs, man-made water hole, water well or watering tank used by wildlife or domestic livestock.
- Limiting all camping to no closer than one-quarter mile from waysides, overlooks, interpretive trails or state highways, except at developed campgrounds and designated campsites.

Approximately 24,000 acres will be designated as limited to designated roads and trails for OHV use, to protect soils, cultural resources, and vegetation, including threatened or endangered species.

A wayside stop will be considered for development along U.S. Highway 380 to interpret the historical, archaeological, and recreational opportunities of the area.

The use of OHVs will be limited to designated roads and trails, with the following exceptions:

- A 100-foot wide corridor measured from the edge of the creek along each side of the Rio Bonito and Salado Creek will be closed to OHV use to protect sensitive riparian resources, except for the use of designated roads within the corridor.
- All multi-use trails (horse, hiking and mountain biking) will be closed to OHV use. Mountain bike trails that are located on existing roads will be open for OHV use.
- The Feather Cave Archeological Complex will be closed to OHV use, except for U.S. Highway 380 and the Fort Stanton Cave Road.

Streambank stabilization structures, native riparian plantings, riparian pastures, saltcedar control, and spring and drainage protection measures could be implemented on the Rio Bonito and Salado Creek. These practices will be used in situations including, but not limited to, areas that:

- Exhibit streambank sloughing;
- Lack riparian vegetation or regeneration;
- Exhibit invasion of exotics or undesirable plant species;
- Exhibit erosion of side drainages;
- Lack riparian pastures to control livestock use.

Riparian and aquatic habitat will be protected by maintaining minimum acceptable instream flow for Rio Bonito Creek at Fort Stanton by acquiring water rights, entering into cooperative management agreements, or other methods.

The BLM will recommend to the New Mexico State Game Commission that Fort Stanton be

designated as a special hunt draw area or a restricted area open only to primitive hunting (bow and arrow or muzzle-loader). Additionally, vehicles will not be allowed off of designated roads or trails to retrieve downed game.

Big game or upland game transplants and reintroductions will be conducted on public lands when cooperatively prescribed by the BLM and the NMDGF. Transplants and reintroductions include, but are not limited to:

- Pronghorn in pastures that meet the suitability criteria (see Appendix 12 in the Draft RMP/EIS);
- Mule deer in areas of low population density or areas to enhance gene pools;
- Wild turkey;
- Other big game or upland game species recommended by the New Mexico Department of Game and Fish.

Native fish and sport fish introductions or transplants will be conducted in suitable waters on public land in coordination with the New Mexico Department of Game and Fish. Proposed introductions could include rainbow, cutthroat, brown, and brook trout in Rio Bonito Creek. Criteria for introductions or transplants include, but are not limited to:

- Perennial water availability;
- Existing populations indicate suitable habitat conditions but may need supplementing due to fishing pressure;
- No or low populations in stream segments with suitable habitat conditions such as water flow, temperature, stream shading, pools and riffles, and stable streambanks.

The full wildfire suppression response level will be applied at Fort Stanton to protect Kuenzler cactus habitat and the entrance to Fort Stanton Cave. Bulldozers will not be used to construct fire line.

## Roswell Cave Complex ACEC

The Roswell Cave Complex ACEC comprises nine cave systems, which are: Angora-Corn Cave; Bat Hole Cave; Coachwhip Cave; Crockett Cave; Crystal Caverns-Devils Well Caves; Martin-Antelope Gyp Cave; Millrace Cave; Torgac Cave; and Zia Christine Cave. The ACEC comprises 16,814 surface acres. There are 14,894 acres of federal mineral estate in the ACEC, including 3,000 acres under private surface. The surface acreage consists of the following categories and acreages:

Public land, 11,894 acres  
Private land, 4,920 acres

Refer to Table 13 for the categories and acreages of lands comprising the ACEC, listed by cave system.

### Management Goal:

*Protect the natural and scenic values of caves, while allowing for limited recreational, commercial, scientific and educational use.*

### Management Prescriptions:

Crockett, Crystal Caverns, Martin-Antelope Gyp, Torgac Annex, and Torgac caves will be closed to visitor use annually from November 1 to April 15 to protect significant bat hibernacula. Seasons of use and visitor use restrictions will be applied to any other caves or portions of caves found to have significant bat hibernacula or nurseries.

The federal mineral estate in the ACEC, nearly 15,000 acres in size, will be closed to the future leasing of oil and gas, the disposal of saleable minerals, and the leasing of solid minerals. The federal mineral estate also will be proposed for withdrawal from entry under the general land laws, including the 1872 Mining Law.

All lands in the ACEC will be designated exclusion areas for major rights-of-way.

The BLM will acquire access easements to caves for which legal access does not exist. The need

for acquiring easements will be evaluated on a case-by-case basis, because land acquisitions may eliminate the need for some easements. The cave systems to which access will be acquired are:

- Crockett Cave, 1.25 miles
- Crystal Caverns-Devils Well caves, 2.2 miles
- Millrace Cave, .33 mile

All public land in the ACEC will be retained. About 4,920 acres of private land will be acquired, if opportunities arise, to protect the caves and their hydrologic processes. Any lands acquired will be managed according to the prescriptions in this plan.

Fenced exclosures will be constructed around cave entrances in the ACEC when necessary to control access or reduce impacts to cave resources. No livestock will be allowed within any cave exclosure. Grazing will be excluded on as many as 1,000 surface acres in the ACEC following the construction of exclosures.

The ACEC will be managed to maintain the cave systems in their natural condition. Management will include actions such as graffiti and trash removal, protection against vandalism, and limiting the extent and location of trails, where appropriate.

Research and scientific use will have priority over other uses. These uses will be curtailed if there is a conflict with the protection of unique cave values.

Bat Hole Cave will be closed to all visitor use, except for administrative or research purposes, to protect the significant bat hibernacula and to protect visitors from extreme safety hazards associated with breakdown and vertical entrances. Coachwhip Cave, a typical gypsum cave, will be closed to all visitor use and managed as a control cave for future research and management programs.

Commercial cave guiding will not be allowed in caves of the ACEC until a comprehensive inventory of the biota and natural resources is accomplished. If surveys determine that these resources would not be affected by limited commercial use, then commercial use will be considered and use limits established consistent with management of the caves.

Visitation limits (human carrying capacity) and special stipulations will be prescribed in cave management plans.

Caves in the ACEC with unique or outstanding values, or threatened or endangered species, could warrant development and implementation of additional controls or gating. Documentation of use in all caves in the ACEC will be accomplished by permitting or the installation of cave registers.

About 500 acres of public lands in the ACEC will be designated closed to OHV use, not including lands already closed because they are within a wilderness study area. On the remainder of the public lands, OHV use will be limited to designated roads and trails. The OHV restrictions are displayed by cave, in Table 23.

With the exception of carbide in carbide lamps (miners' lamps), battery acid in flashlights and headlamps, and the temporary use of cave gate construction materials, no solid, liquid, or gaseous substances hazardous to human and animal life will be allowed within any cave or cave exclosure.

Wildfire suppression in the ACEC will include the protection of caves, cave resources and karst features from surface disturbance by prohibiting the use of heavy equipment to construct fire line within 200 meters of known cave entrances, passages or aspects of caves, or significant karst features, or within the exclosures around caves.