

MAP USERS' GUIDE

The maps in this section illustrate data provided in the text of this Resource Management Plan Amendment/Environmental Impact Statement (RMPA/EIS) for Federal fluid minerals leasing in Sierra and Otero Counties.

A geographic information system (GIS) (ArcInfo version 6.1 software) has been used for data compilation, storage, management, and graphic and analytic output. For inclusion in the RMPA/EIS, the maps have been produced at a scale of 1:85,000; however, the maps are available at a large scale for review at the Las Cruces Field Office of the Bureau of Land Management (BLM).

The maps are formatted to show the entire planning Area (that is, Sierra and Otero Counties). Every map includes the same base information such as topography, place and feature names, major highways and roads, jurisdictional boundaries (e.g., county boundaries), and map reference information.

Each map is identified by a figure in the lower left corner. Each map consolidates and illustrates a variety of different information. The legend provides an explanation of the information unique to each map.

Alternatives Maps The first three maps (Maps 2-1, 2-2, and 2-3) of this section accompany the text of Chapter 2—Alternatives. Each map represents one of the three alternatives. That is, each map reflects the (1) land that is closed to leasing (nondiscretionary and discretionary closures) and (2) lands within BLM's Decision Area that are open for leasing and how those lands would be managed (through stipulations or standard lease terms and conditions). Refer to Chapter 2, Section 2.3, for more explanation of the alternatives. It is important to note the following:

- # The alternatives are applicable only to BLM's Decision Area; that is, public land (administered by BLM) and private split estate (privately owned surface overlying Federal fluid minerals).
- # Major areas outside of BLM's Decision Area that are known to be nondiscretionary closures are shown for information only and were not included in the analysis of alternatives (e.g., White Sands Missile Range; McGregor Range; incorporated cities, towns, and villages; land administered by the National Park Service).
- # Lands administered or owned by entities other than BLM (e.g., Bureau of Reclamation, Forest Service, Mescalero Apache Indian Reservation, State Trust Land) are shown, but were not included in the analysis of alternatives.

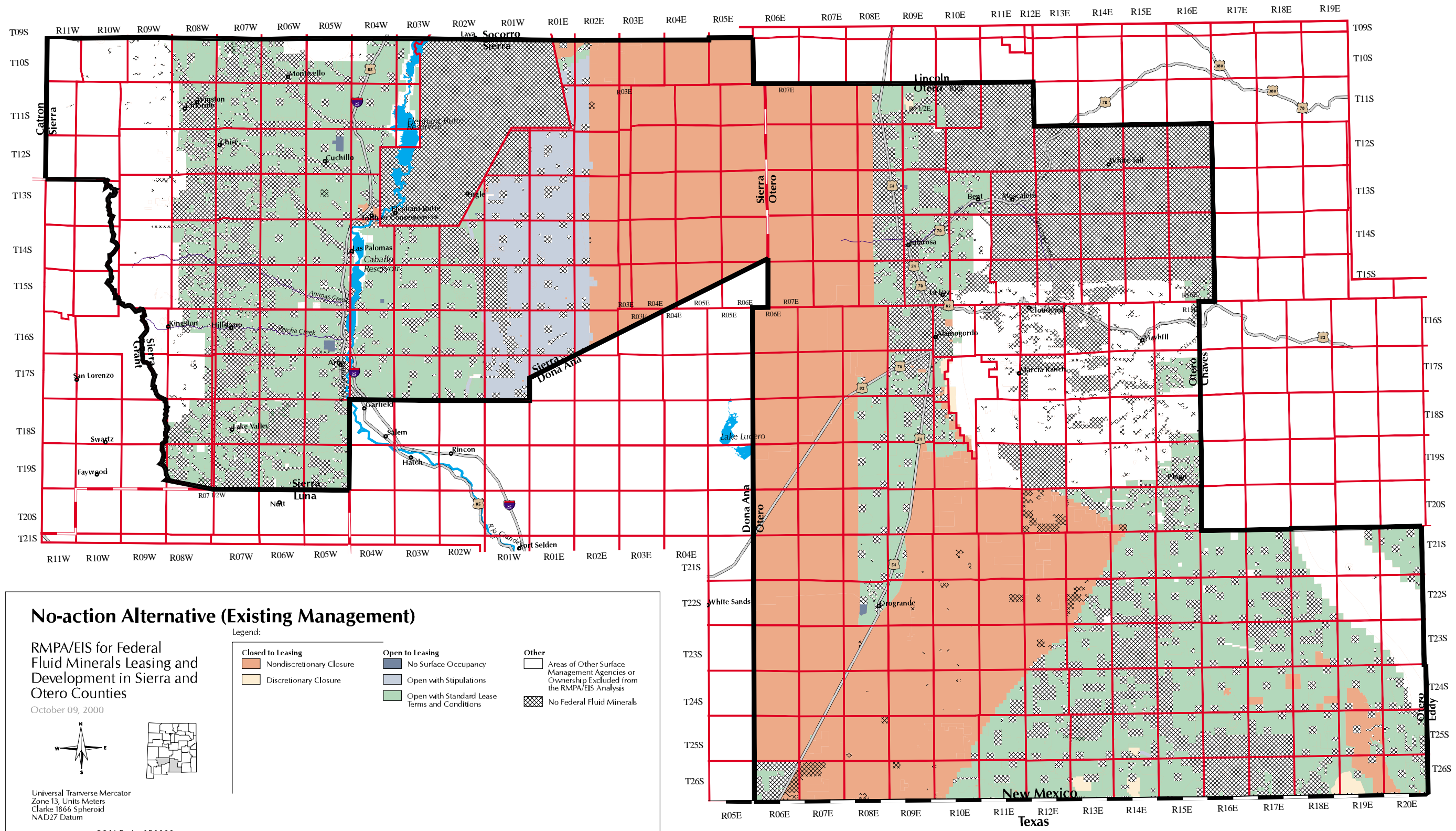
- # Major areas where there were no Federal fluid minerals are shown. Surface area overlying no Federal fluid minerals that is administered by BLM is part of BLM's Decision Area and included in the analysis of alternatives.
- # The set of surface ownership data and the set of environmental resource data originated from different sources. When the two sets are compiled to create the alternatives maps, some of the boundaries do not coincide, resulting in a difference in totaling the acreage. The difference is approximately 6,000 acres, which is less than 1 percent of BLM's Decision Area.

Resource Maps The remaining 10 maps accompany the text of Chapter 3—Affected Environment. These maps, representing ten themes of data, were developed from available data and represent an inventory of the existing resource concerns addressed in this RMPA/EIS. Other background information may be included to provide context. Where possible, the maps illustrate data for the entire Planning Area; however, data outside of BLM's Decision Area were not readily available for all resources.

A list of maps contained in this section is provided on the following page. In addition, in developing the Management Situation Analysis, preparatory to this RMPA/EIS (refer to Chapter 1, Section 1.3.4), several larger-scale maps were developed. These maps are listed in the Table of Contents and are available for review at the Las Cruces Field Office of BLM.

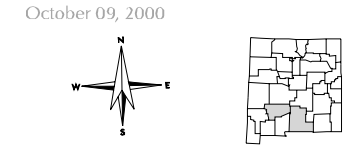
LIST OF MAPS

Map No.	Map Title	Map Content
Chapter 2 - Alternatives		
2-1	No-action Alternative (Existing Management)	Availability of lands for leasing and existing management of those lands.
2-2	Alternative A	Alternative to existing management showing availability of lands for leasing and management of those lands.
2-3	Alternative B	Alternative to existing management showing availability of lands for leasing and management of those lands.
Chapter 3 - Affected Environment		
3-1	Jurisdiction and Federal Fluid Minerals	Surface ownership and location of Federal fluid minerals.
3-2	Land and Access	Major land uses, utilities, and transportation.
3-3	Potential for Oil and Gas Resources	Tectonic features and projected potential for oil and gas resources.
3-4	Potential for Geothermal Resources	Projected potential for geothermal resources.
3-5	Highly Erosive and Fragile Soils, Prime Farmlands, and Watershed Areas	Four highly erosive and fragile soils identified, potential prime farmland (including nonirrigated areas), and five designated watershed areas.
3-6	Water Resources	Declared underground water basins and hydrologic basins.
3-7	Major Vegetation and Habitat Types	Nine vegetation types, six ecological study plots, and six wildlife habitat areas.
3-8	Special Status Species	Special management areas (i.e., Wilderness Study Areas [WSA], Areas of Critical Environmental Concern [ACECs], nominated ACECs, general locations of special status plant and animal species, secondary roads, and railroads.
3-9	Visual Resources	Visual Resource Management Classes I-IV
3-10	Recreation and Special Management Areas	WSAs, ACECs, nominated ACECs, off-road vehicle (ORV) areas, trails, other recreation areas.

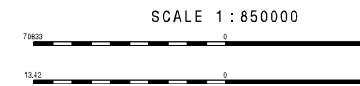


No-action Alternative (Existing Management)

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
 October 09, 2000



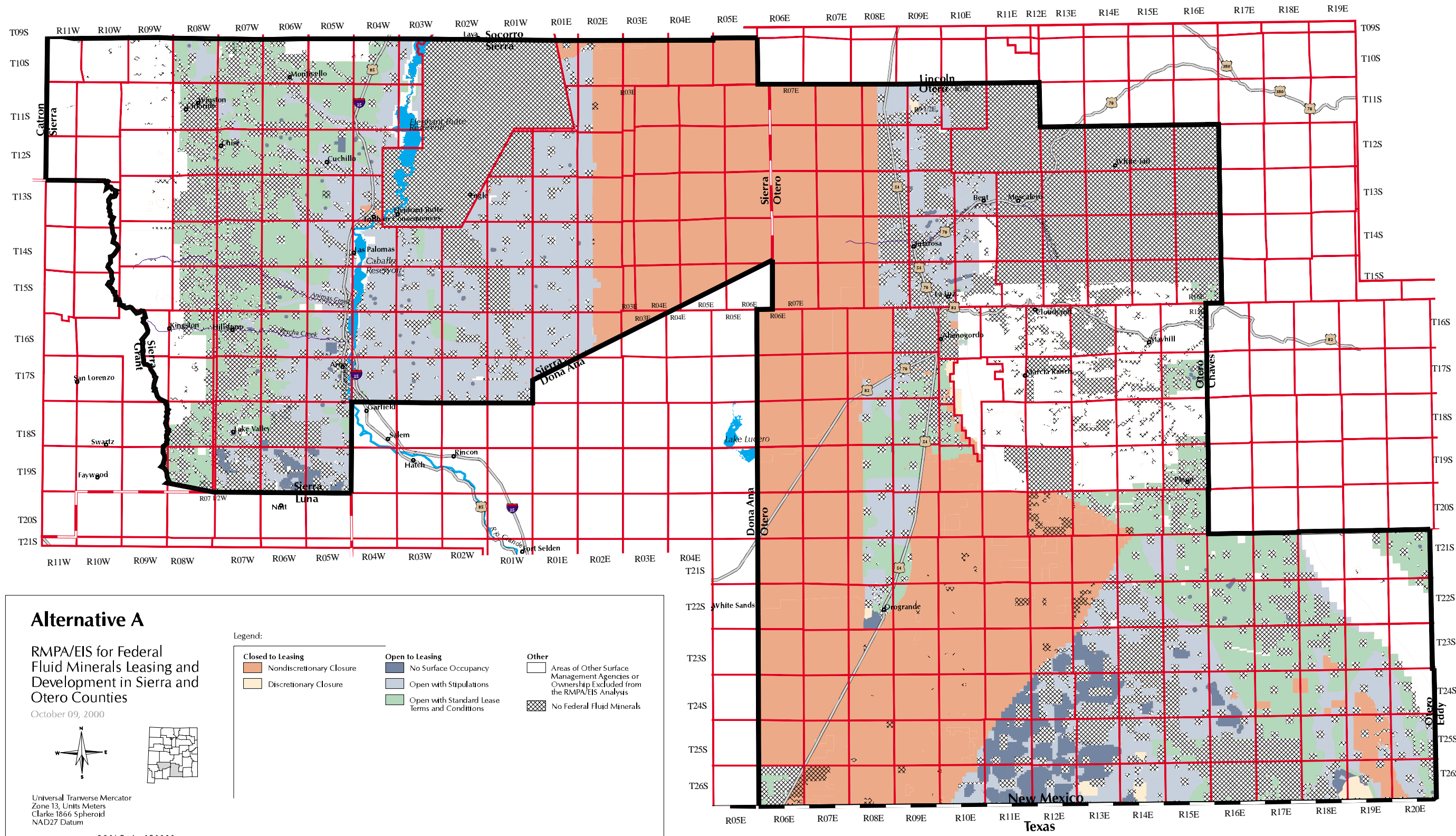
Universal Transverse Mercator
 Zone 13, Units Meters
 Clarke 1866 Spheroid
 NAD27 Datum



Legend:

Closed to Leasing	Open to Leasing	Other
Nondiscretionary Closure	No Surface Occupancy	Areas of Other Surface Management Agencies or Ownership Excluded from the RMPA/EIS Analysis
Discretionary Closure	Open with Stipulations	No Federal Fluid Minerals
	Open with Standard Lease Terms and Conditions	

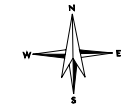




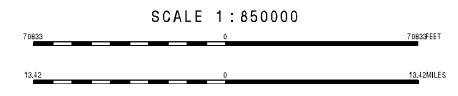
Alternative A

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties

October 09, 2000



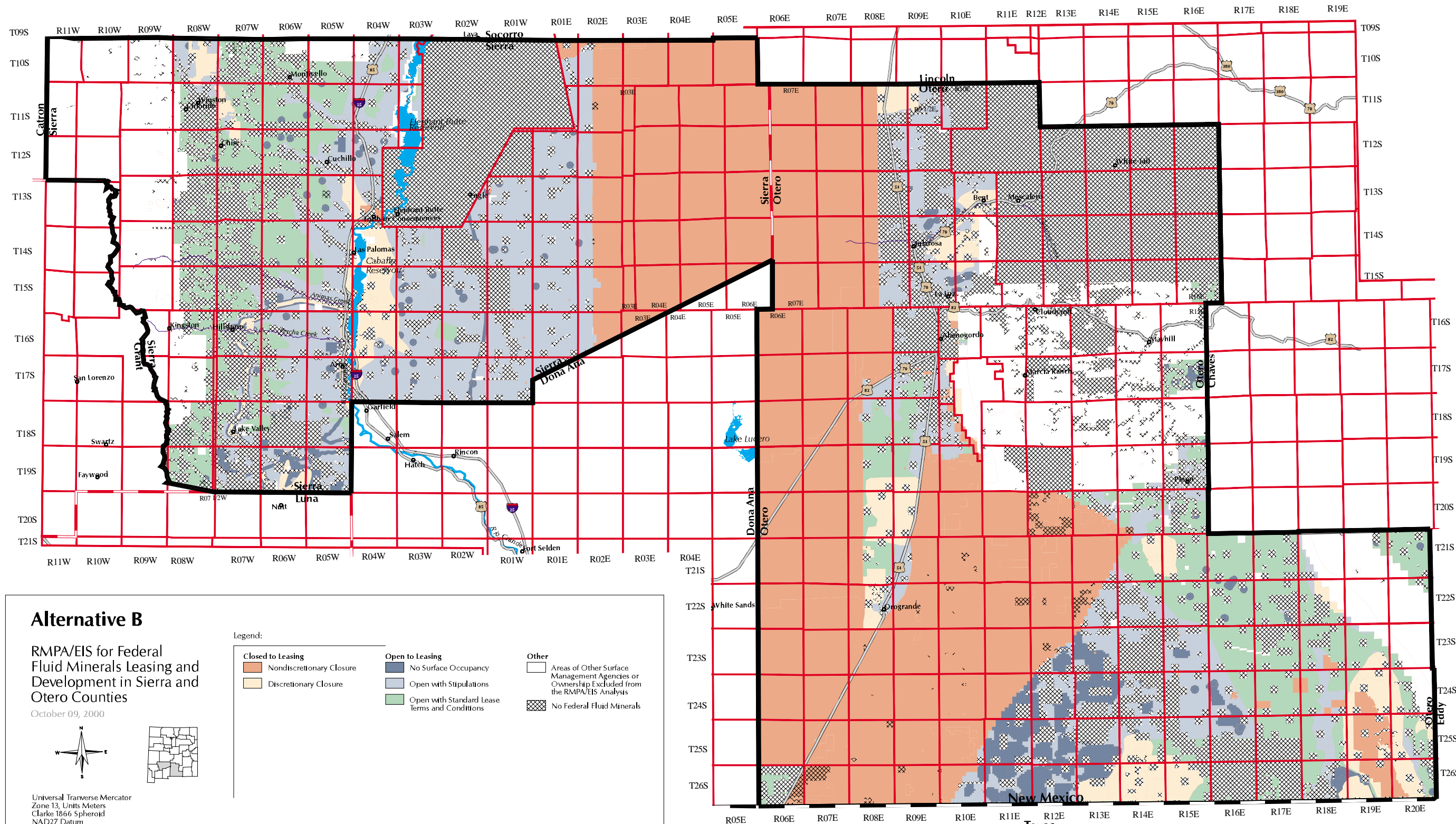
Universal Transverse Mercator
Zone 13, Units Meters
Clarke 1866 Spheroid
NAD27 Datum



Legend:

- | | | |
|---|---|--|
| Closed to Leasing
Nondiscretionary Closure | Open to Leasing
No Surface Occupancy | Other
Areas of Other Surface Management Agencies or Ownership Excluded from the RMPA/EIS Analysis |
| Discretionary Closure | Open with Stipulations | No Federal Fluid Minerals |
| | Open with Standard Lease Terms and Conditions | |

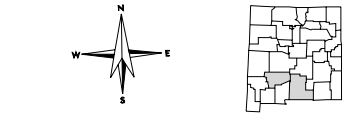




Alternative B

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties

October 09, 2000



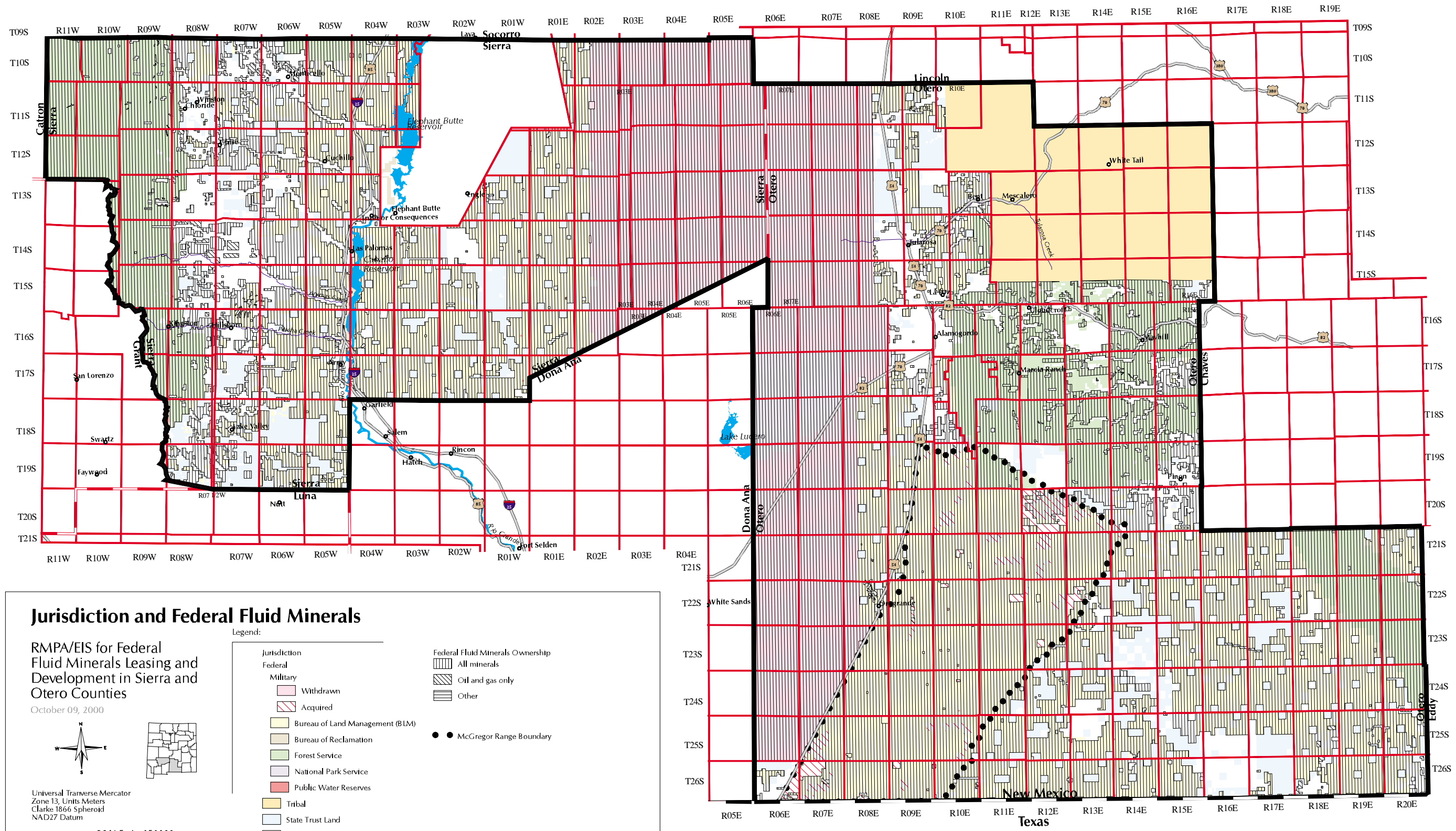
Universal Transverse Mercator
Zone 13, Units Meters
Clarke 1866 Spheroid
NAD27 Datum



Legend:

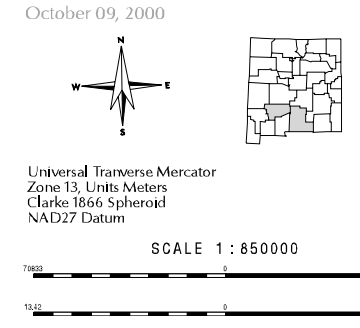
Closed to Leasing	Open to Leasing	Other
Nondiscretionary Closure	No Surface Occupancy	Areas of Other Surface Management Agencies or Ownership Excluded from the RMPA/EIS Analysis
Discretionary Closure	Open with Stipulations	No Federal Fluid Minerals
	Open with Standard Lease Terms and Conditions	





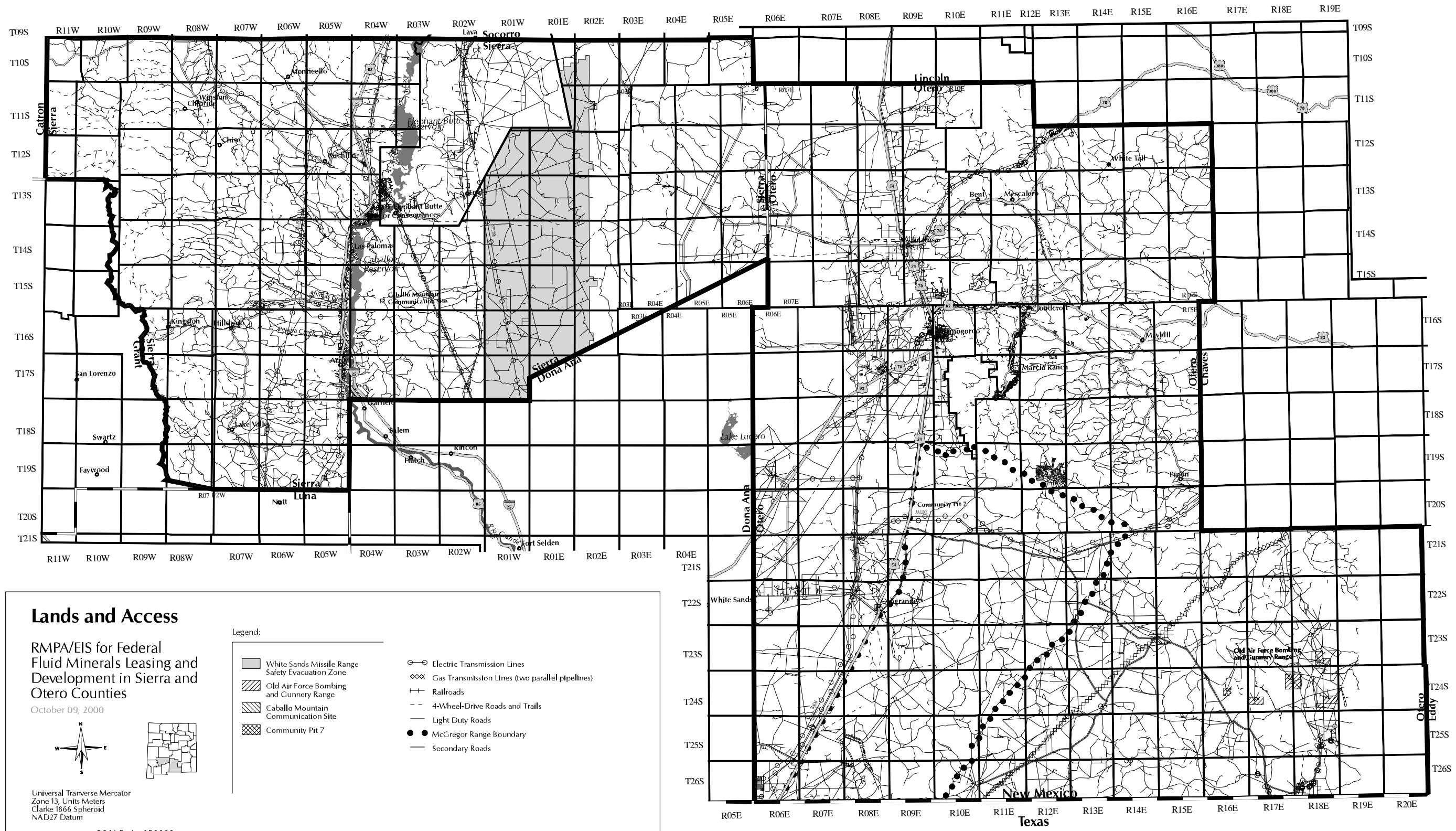
Jurisdiction and Federal Fluid Minerals

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
 October 09, 2000



- Legend:
- | | |
|---------------------------------|---|
| Jurisdiction | Federal Fluid Minerals Ownership |
| Federal | Vertical lines: All minerals |
| Military | Diagonal lines: Oil and gas only |
| Withdrawn | Horizontal lines: Other |
| Acquired | Black dots: McGregor Range Boundary |
| Bureau of Land Management (BLM) | |
| Bureau of Reclamation | |
| Forest Service | |
| National Park Service | |
| Public Water Reserves | |
| Tribal | |
| State Trust Land | |
| Private | |

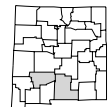
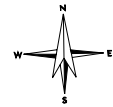




Lands and Access

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties

October 09, 2000



Universal Transverse Mercator
Zone 13, Units Meters
Clarke 1866 Spheroid
NAD27 Datum

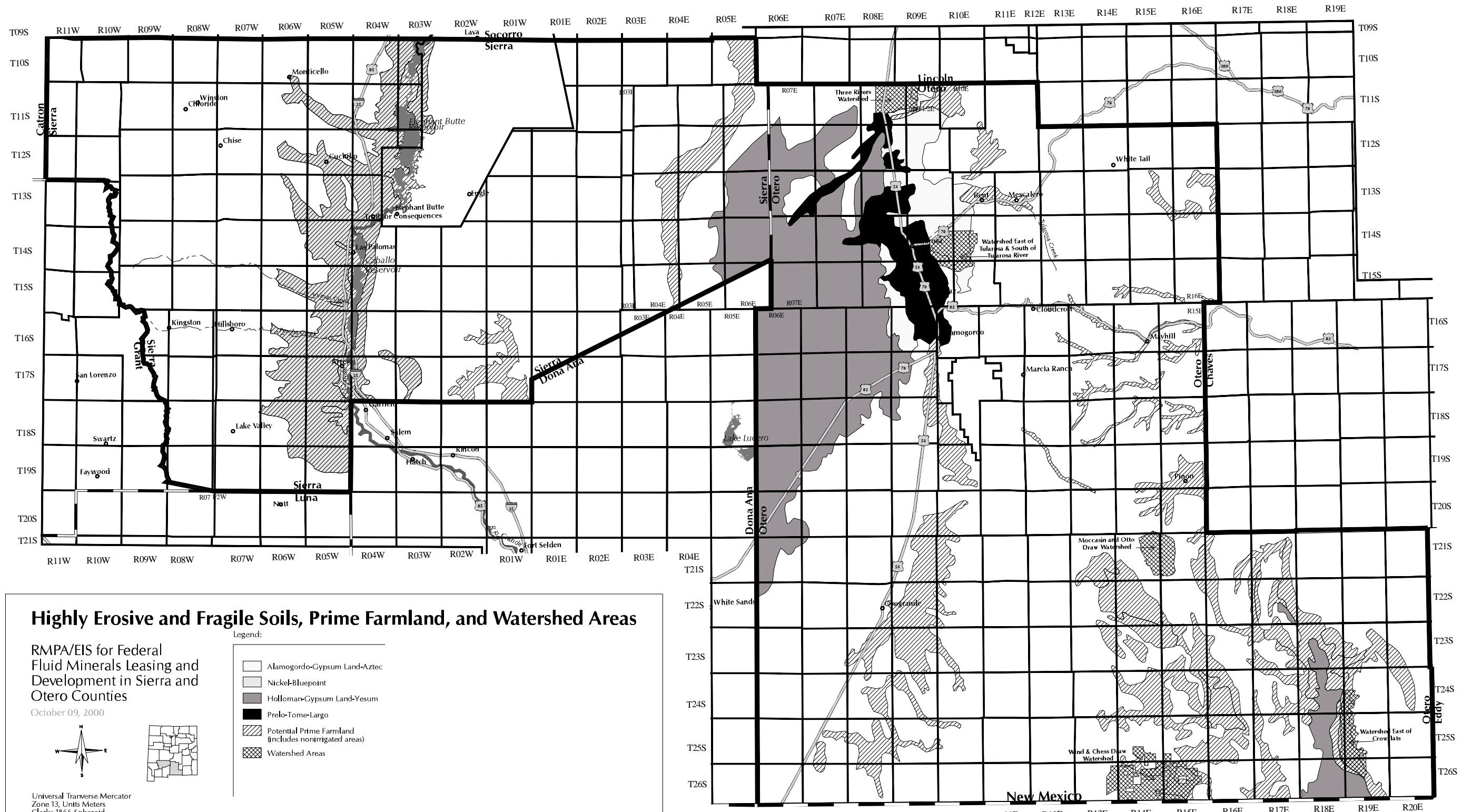
SCALE 1 : 850000



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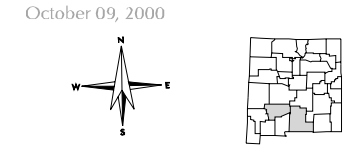
- White Sands Missile Range Safety Evacuation Zone
- Old Air Force Bombing and Gunnery Range
- Caballo Mountain Communication Site
- Community Pit 7
- Electric Transmission Lines
- Gas Transmission Lines (two parallel pipelines)
- Railroads
- 4-Wheel-Drive Roads and Trails
- Light Duty Roads
- McGregor Range Boundary
- Secondary Roads



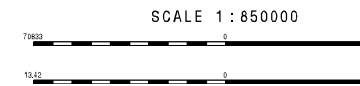


Highly Erosive and Fragile Soils, Prime Farmland, and Watershed Areas

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
 October 09, 2000

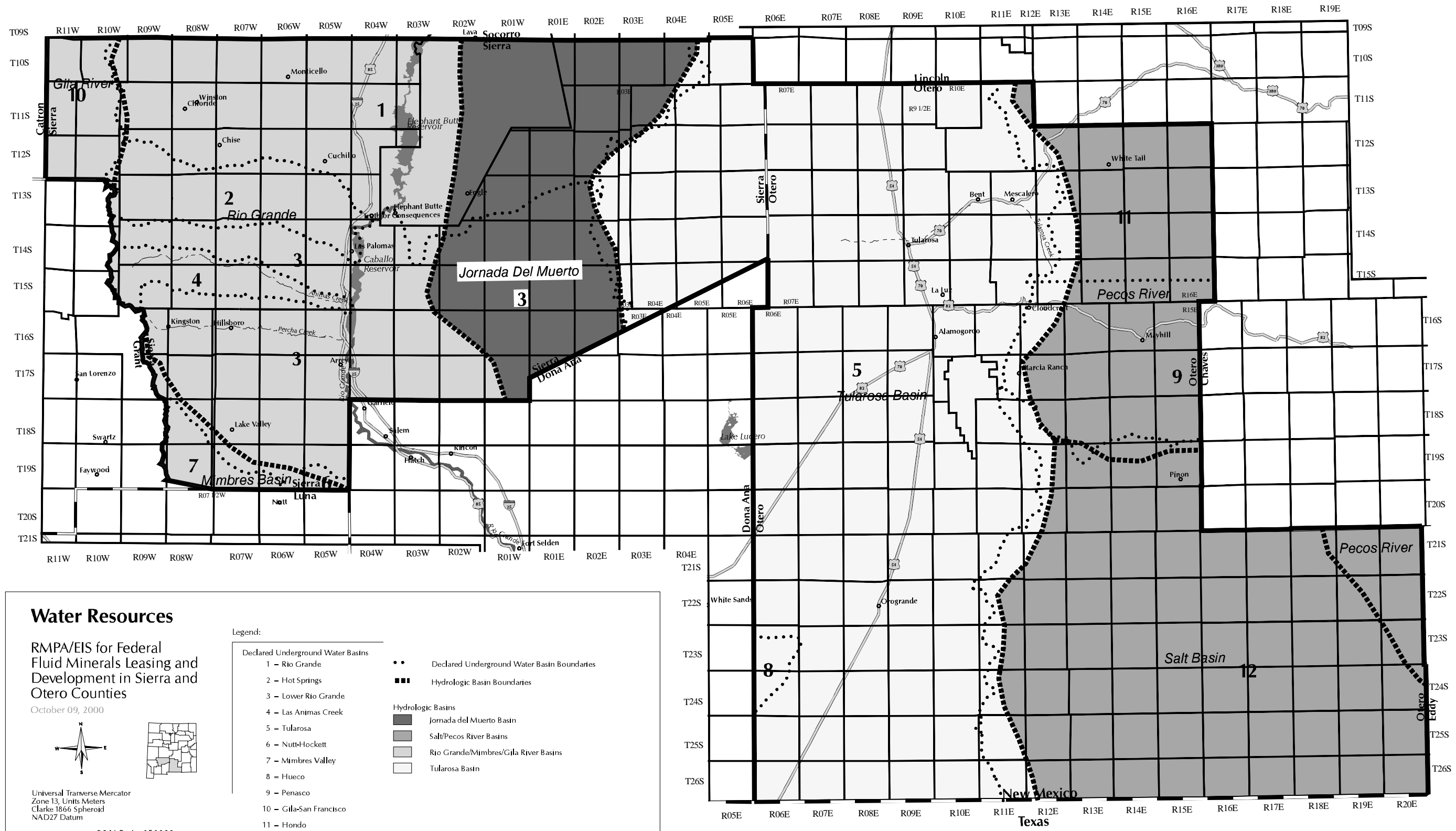


Universal Transverse Mercator
 Zone 13, Units Meters
 Clarke 1866 Spheroid
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- Legend:
- Alamo-Gypsum Land-Aztec
 - Nickel-Bluepoint
 - Holloman-Gypsum Land-Yesum
 - Prelo-Tome-Largo
 - Potential Prime Farmland (includes nonirrigated areas)
 - Watershed Areas





Water Resources

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
 October 09, 2000

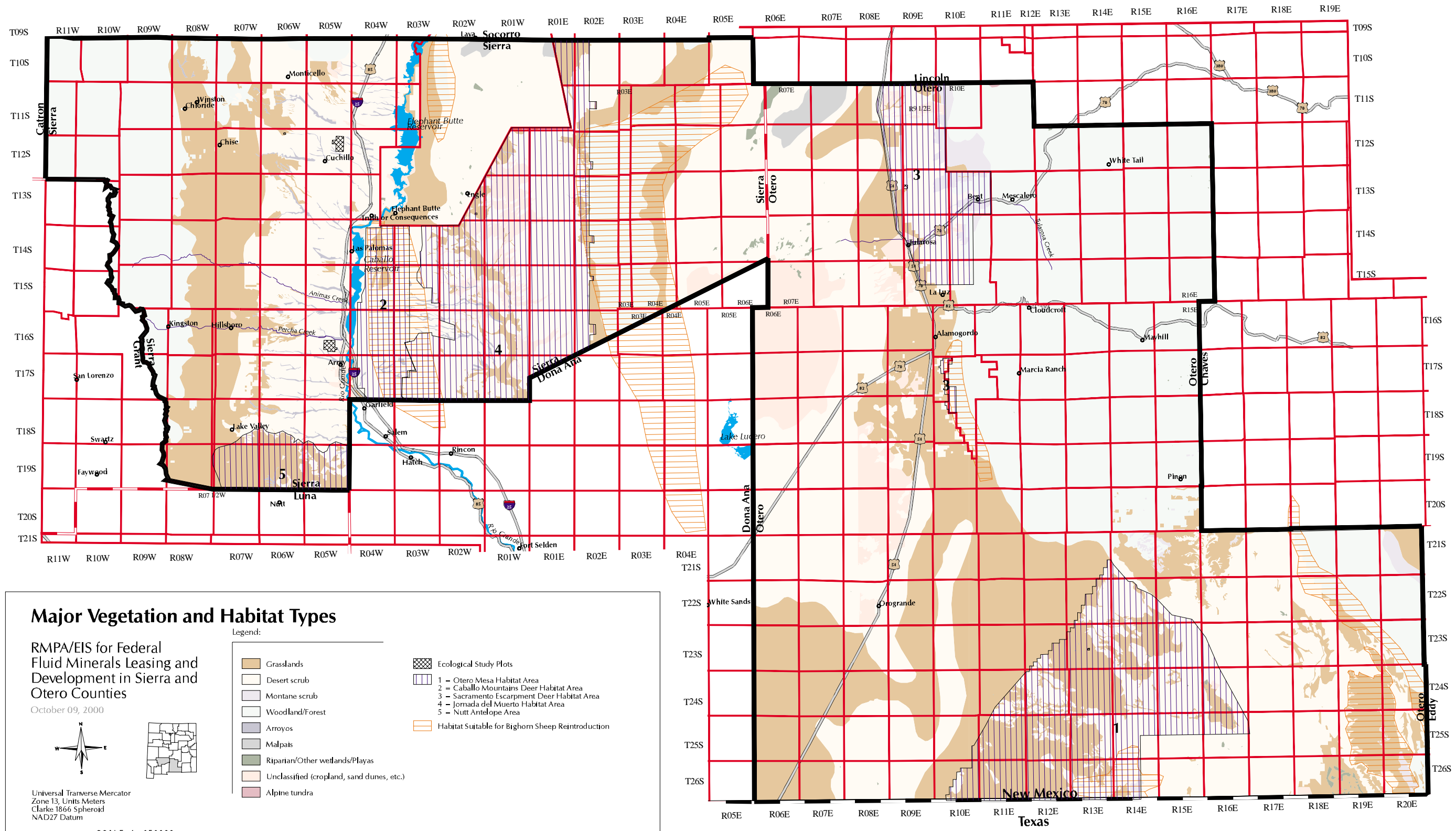
Universal Transverse Mercator
 Zone 13, Units Meters
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Legend:

Declared Underground Water Basins		•••	Declared Underground Water Basin Boundaries
1 - Rio Grande		— — — — —	Hydrologic Basin Boundaries
2 - Hot Springs		— — — — —	
3 - Lower Rio Grande			
4 - Las Animas Creek			
5 - Tularosa			
6 - Nutt-Hockett			
7 - Mimbres Valley			
8 - Hueco			
9 - Penasco			
10 - Gila-San Francisco			
11 - Hondo			
12 = Undeclared			

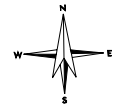
Hydrologic Basins	
■	Jornada del Muerto Basin
■	Salt/Pecos River Basins
■	Rio Grande/Mimbres/Gila River Basins
■	Tularosa Basin



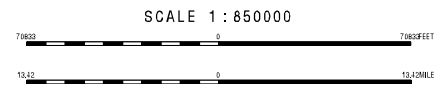
Major Vegetation and Habitat Types

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties

October 09, 2000



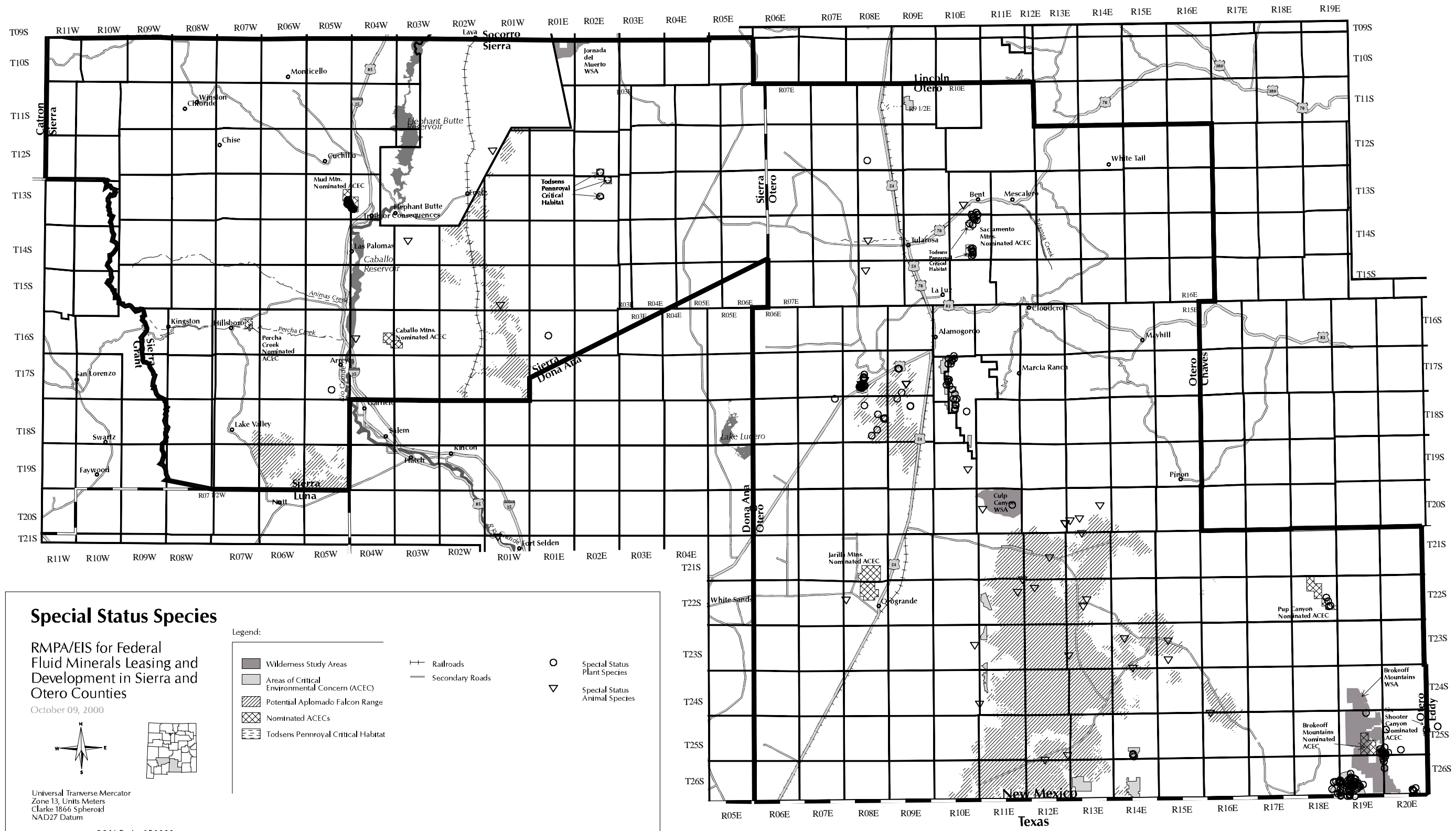
Universal Transverse Mercator
Zone 13, Units Meters
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NAD27 Datum



Legend:

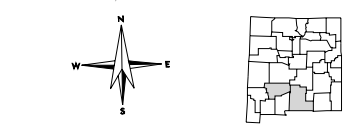
- Grasslands
- Desert scrub
- Montane scrub
- Woodland/Forest
- Arroyos
- Malpais
- Riparian/Other wetlands/Playas
- Unclassified (cropland, sand dunes, etc.)
- Alpine tundra
- Ecological Study Plots
- 1 - Otero Mesa Habitat Area
- 2 - Caballo Mountains Deer Habitat Area
- 3 - Sacramento Escarpment Deer Habitat Area
- 4 - Jornada del Muerto Habitat Area
- 5 - Nutt Antelope Area
- Habitat Suitable for Bighorn Sheep Reintroduction



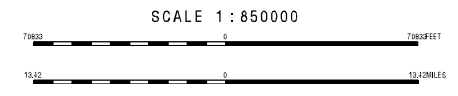


Special Status Species

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
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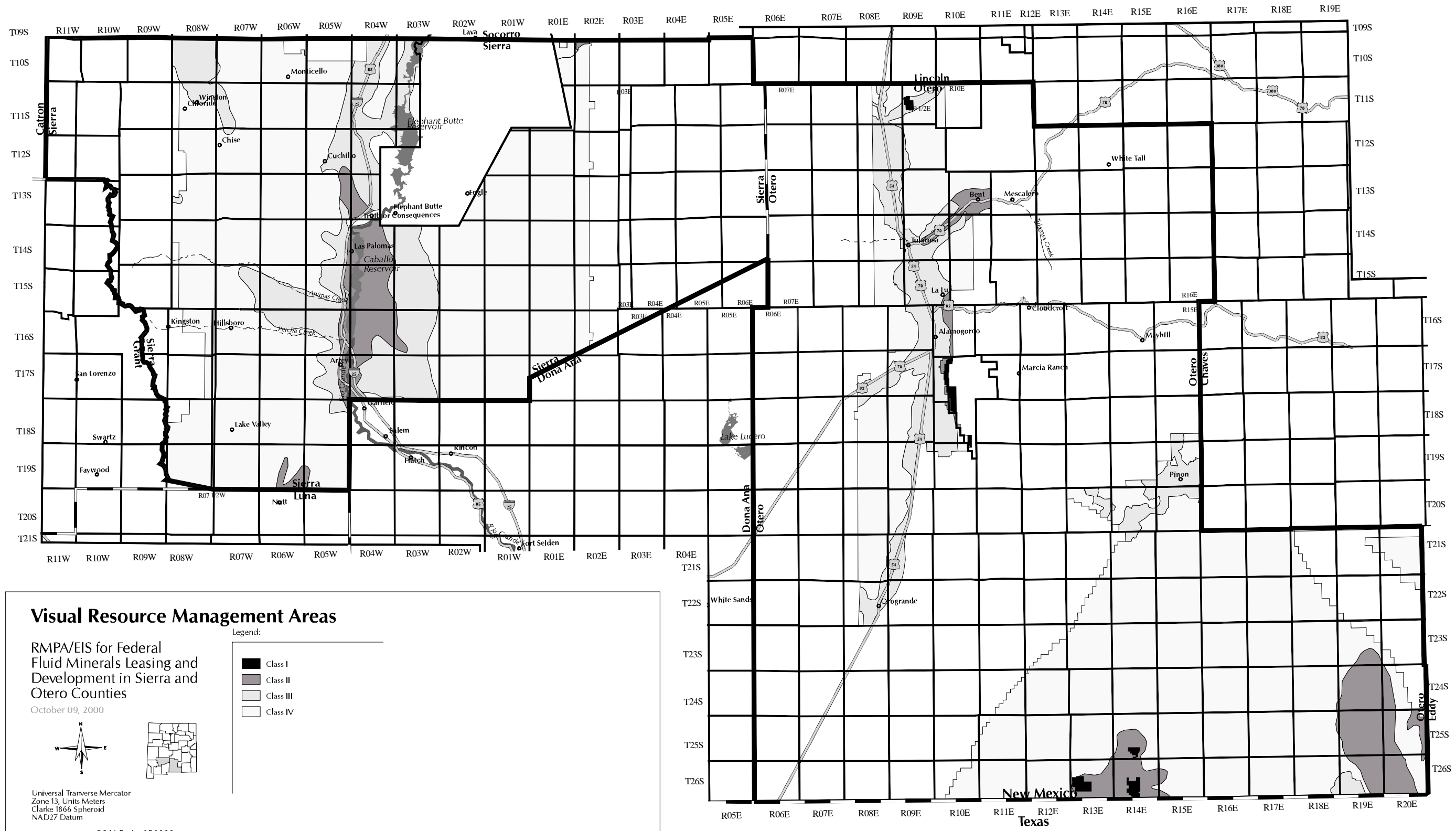


Universal Transverse Mercator
 Zone 13, Units Meters
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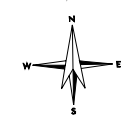
- Legend:
- Wilderness Study Areas
 - Areas of Critical Environmental Concern (ACEC)
 - Potential Aplomado Falcon Range
 - Nominated ACECs
 - Todsens Pennroyal Critical Habitat
 - Railroads
 - Secondary Roads
 - Special Status Plant Species
 - Special Status Animal Species



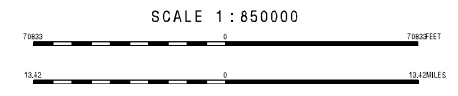


Visual Resource Management Areas

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
 October 09, 2000



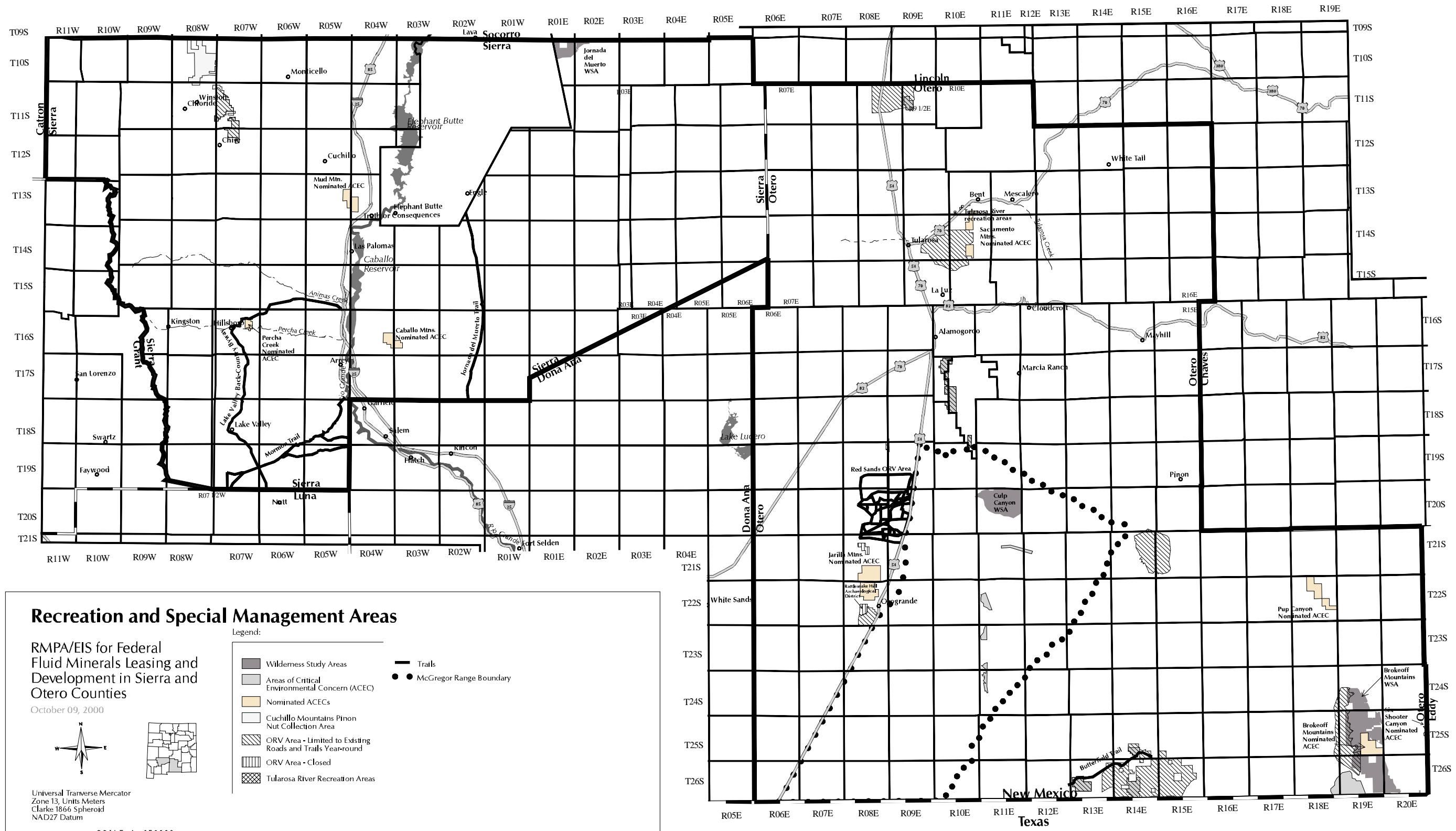
Universal Transverse Mercator
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Legend:

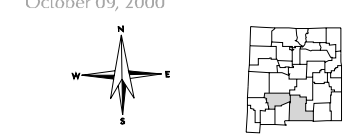
- Class I
- Class II
- Class III
- Class IV



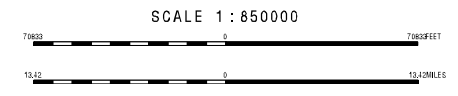


Recreation and Special Management Areas

RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties
 October 09, 2000



Universal Transverse Mercator
 Zone 13, Units Meters
 Clarke 1866 Spheroid
 NAD27 Datum



- Legend:
- Wilderness Study Areas
 - Areas of Critical Environmental Concern (ACEC)
 - Nominated ACECs
 - Cuchillo Mountains Pinon Nut Collection Area
 - ORV Area - Limited to Existing Roads and Trails Year-round
 - ORV Area - Closed
 - Tularosa River Recreation Areas
 - Trails
 - McGregor Range Boundary

