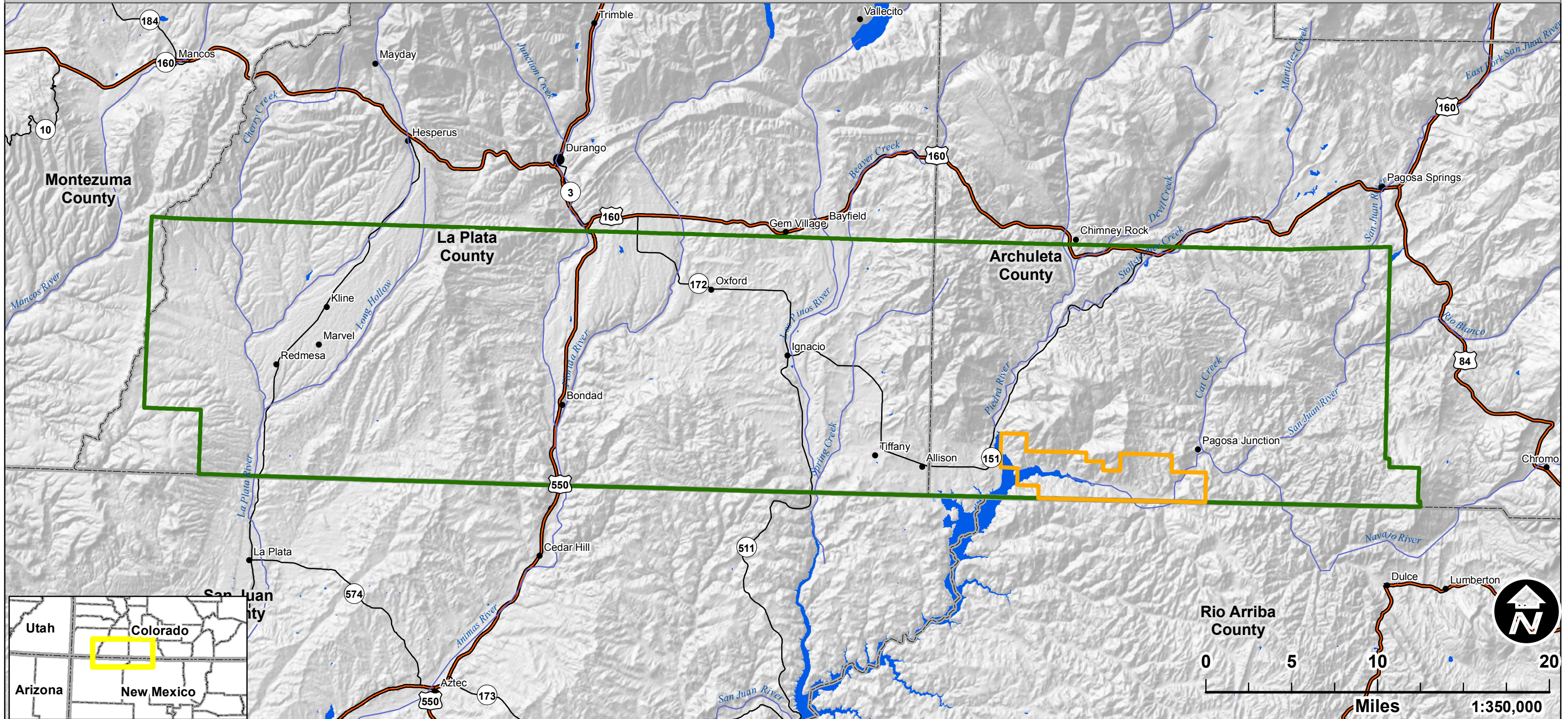


Appendix A – Maps

- Map 1:** Area of Mutual Interest and Vicinity
- Map 2:** Existing Disturbance
- Map 3:** Proposed Action
- Map 4:** Surface Ownership
- Map 5:** Surface Geology
- Map 6:** Prime Farmland and Highly Erodible Soils
- Map 7:** Water Resources
- Map 8:** Vegetation Resources
- Map 9:** Big Game Winter Range Calving and Fawning Area
- Map 10:** Deer Migration to Winter Range
- Map 11:** Deer Movement in Winter Range
- Map 12:** Archaeological Site Density
- Map 13:** American Indian Populations per Census Tract
La Plata and Archuleta Counties
- Map 14:** Poverty Level, La Plata and Archuleta Counties
- Map 15:** Land Management Units
- Map 16:** Range Land Grazing Unites
- Map 17:** Transportation Corridors



LEGEND

- | | | |
|---|--|---|
|  North Carracas Area of Mutual Interest |  River/Stream |  County/State Boundary |
|  Southern Ute Indian Tribe Boundary |  Lake/Reservoir |  Highway |
|  Cities |  Major Road | |

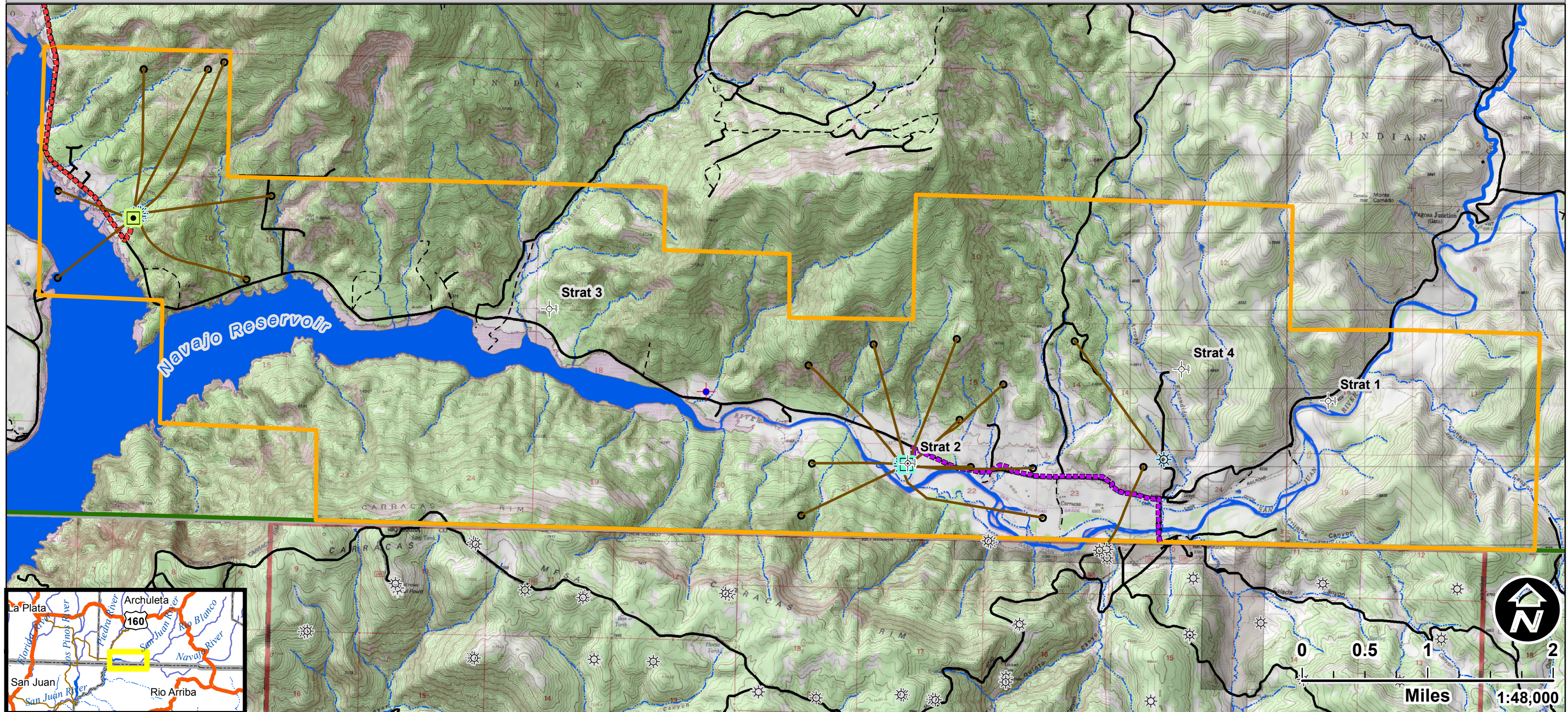
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT















MAP 1: AREA OF MUTUAL INTEREST AND VICINITY

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

- | | | | | | |
|--|-----------------------------------|---|---|---|-------------------------------|
|  | Stratigraphic Test Well |  | Existing Oil and Gas Well (Outside of AMI) |  | Existing Roads |
|  | West Pilot Well Pad |  | Existing Oil and Gas Well within AMI |  | Perennial River/Stream |
|  | East Pilot Well Pad |  | Plugged and Abandoned Well |  | Ephemeral/Intermittent Stream |
|  | Navajo Split to Carracas pipeline |  | Directionally Drilled Bottom Hole Locations |  | Lake/Pond/Reservoir |
|  | East Pilot Pipeline |  | Existing Well Bore Lines | | |

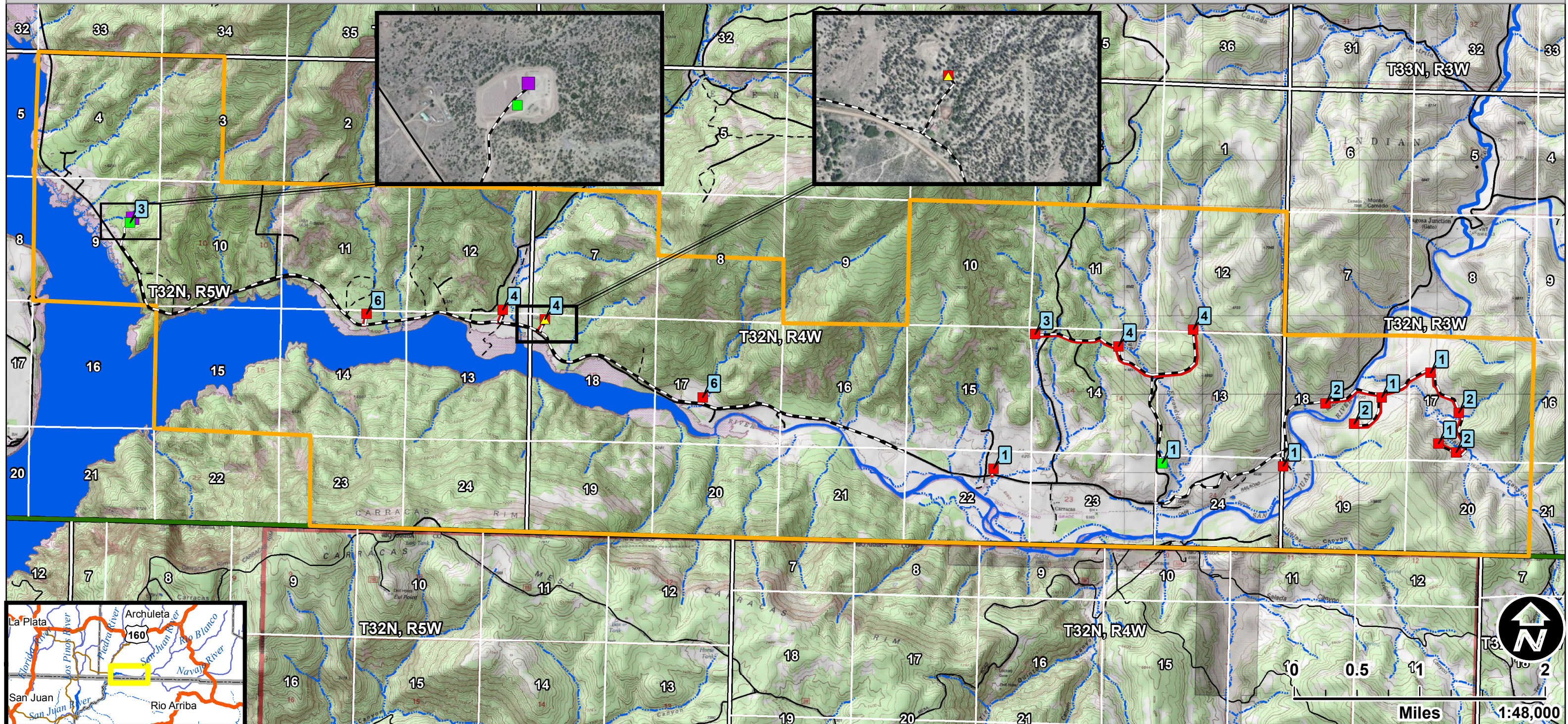
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 2: EXISTING DISTURBANCE

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/8/2013



LEGEND

- | | |
|---|---|
| ■ Existing Well Pad | --- Proposed Pipeline |
| ■ Proposed New Well Pad | --- Proposed Access Roads |
| ▲ Proposed Salt Water Disposal Well | --- Existing Roads |
| ■ Proposed Compressor Station | --- Southern Ute Reservation Boundary |
| # Number of Planned Wells Per Pad | North Carracas Area of Mutual Interest |

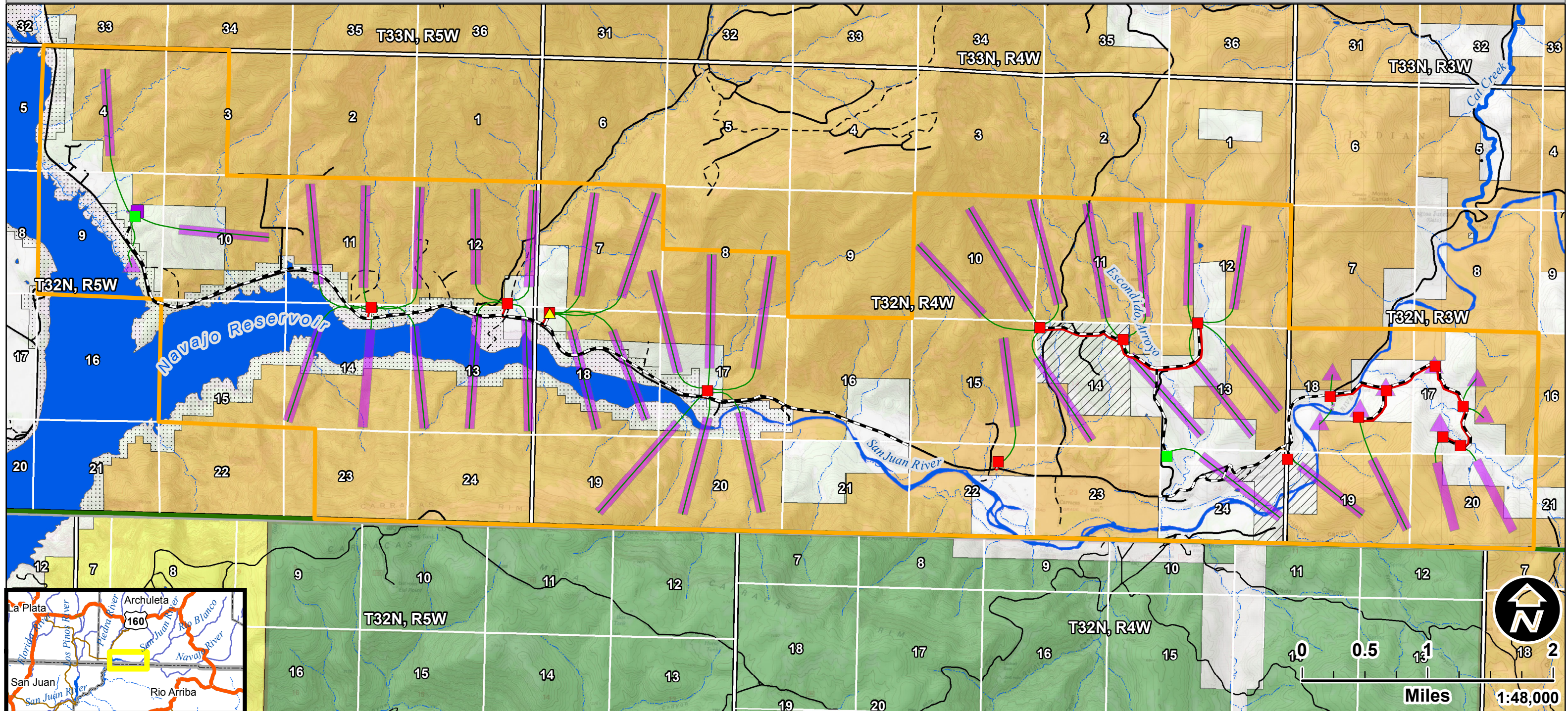
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 3: PROPOSED ACTION

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



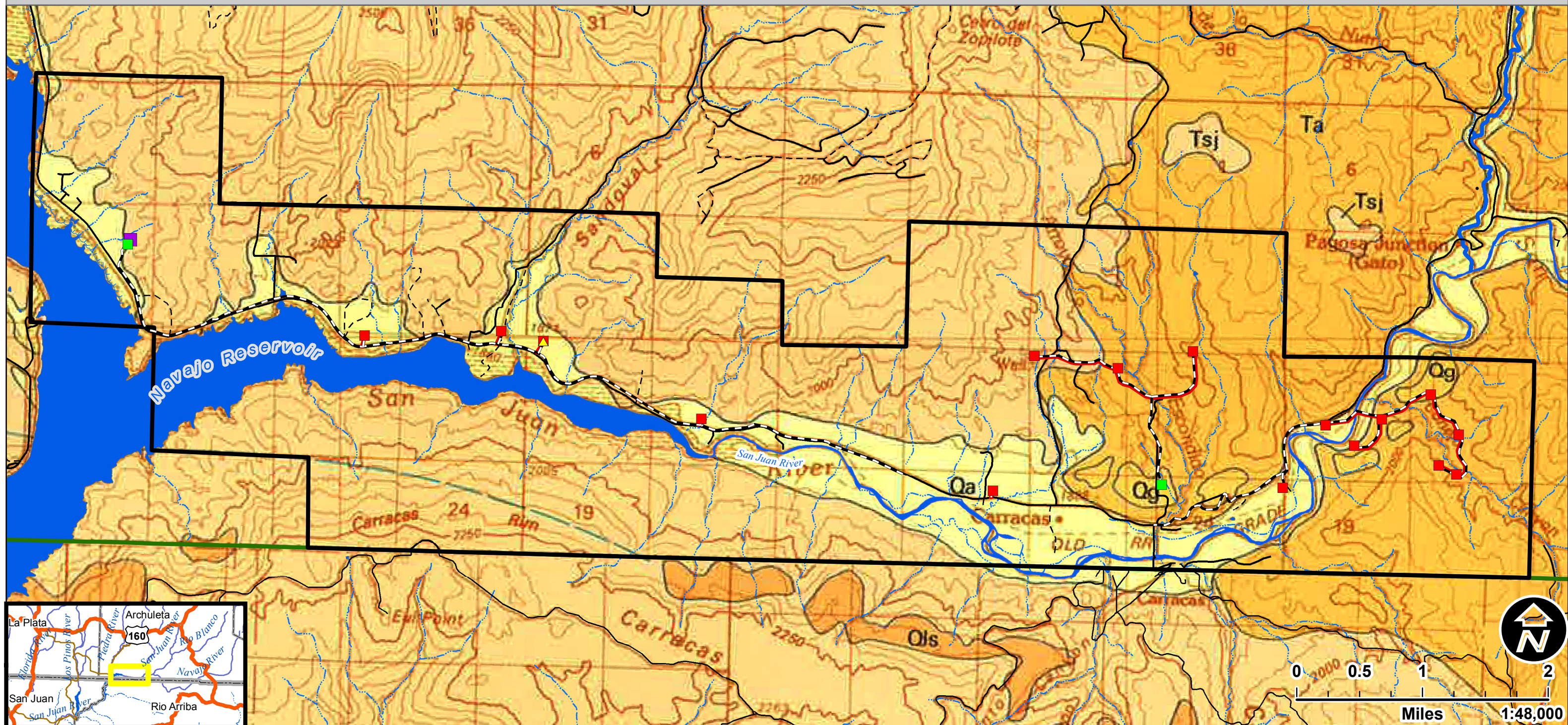
LEGEND

- Existing Well Pad
- Proposed New Well Pad
- Proposed Salt Water Disposal Well
- Proposed Compressor Station
- Proposed Pipeline
- Proposed Access Roads
- Existing Roads
- Southern Ute Reservation Boundary
- North Carracas Area of Mutual Interest
- Well Drill Lines
- Resource Recovery Areas

Surface Ownership

- Tribal Trust
- Fee (Private)
- Tribally Owned Fee (Private)
- Bureau of Reclamation
- US Forest Service
- Bureau of Land Management

Coordinate System: NAD 1983 UTM Zone 13N



LEGEND

- Existing Well Pad
- Proposed New Well Pad
- ▲ Proposed Salt Water Disposal Well
- Proposed Compressor Station
- Proposed Pipeline
- Proposed Access Roads
- Existing Roads
- Southern Ute Reservation Boundary
- North Carracas Area of Mutual Interest

Surficial Geology, North Carracas Area of Mutual Interest**

- Qa Qa- Alluvium (Holocene and Pleistocene)
- Qg Qg- Terrace gravel (Holocene and Pleistocene)
- Qls Qls- Landslide deposits (Holocene and Pleistocene)
- Ta Ta- Animas Formation, Upper Part (Paleocene)
- Tsj Tsj- San Jose Formation (Eocene)

**Georeferenced Image from the Ground Water Atlas Of Colorado, 2003

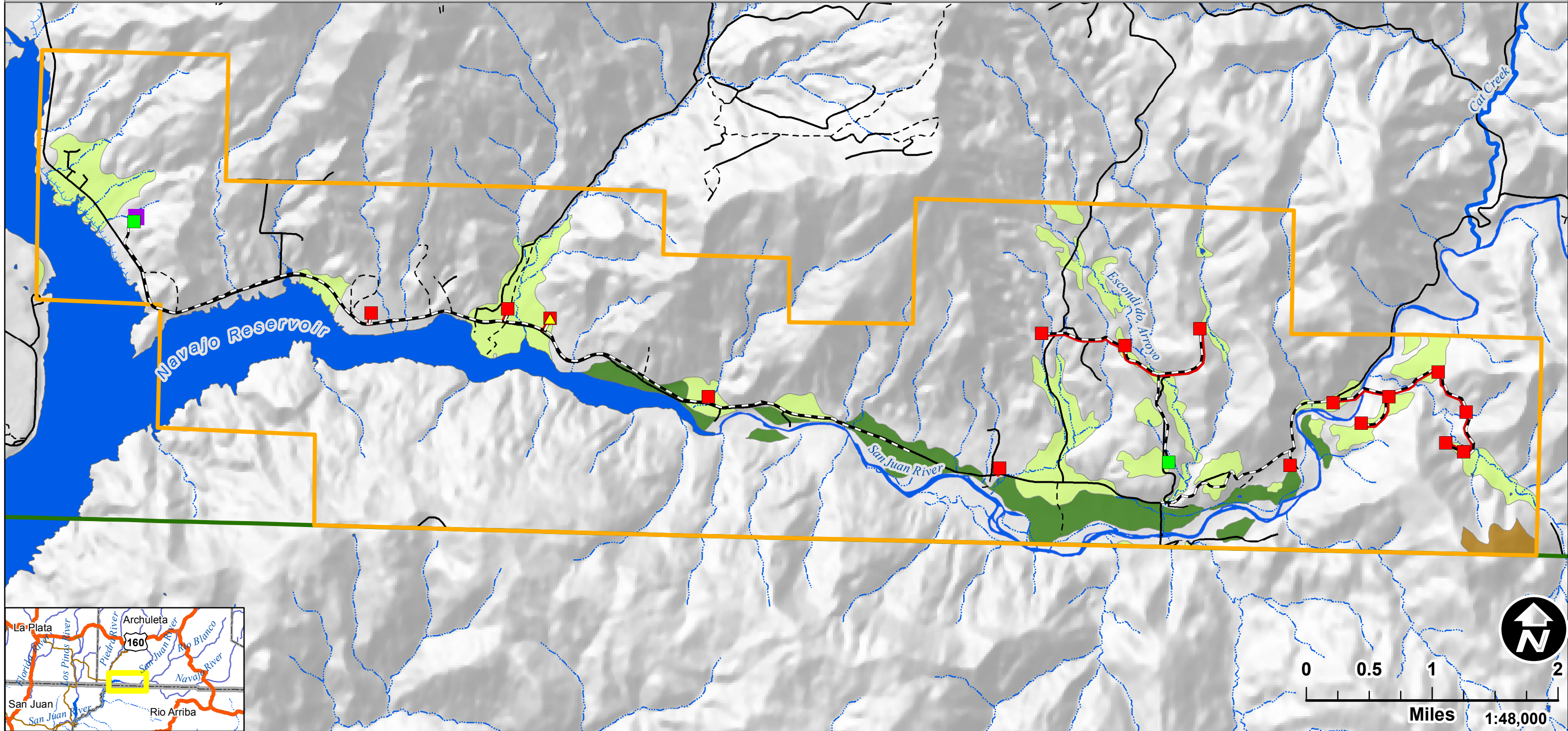
NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 5: SURFICIAL GEOLOGY MAP

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013

Coordinate System: NAD 1983 UTM Zone 13N



LEGEND

- Existing Well Pad
- Proposed New Well Pad
- ▲ Proposed Salt Water Disposal Well
- Proposed Compressor Station
- Proposed Pipeline
- Proposed Access Roads
- Existing Roads
- Southern Ute Reservation Boundary
- North Carracas Area of Mutual Interest

SOILS

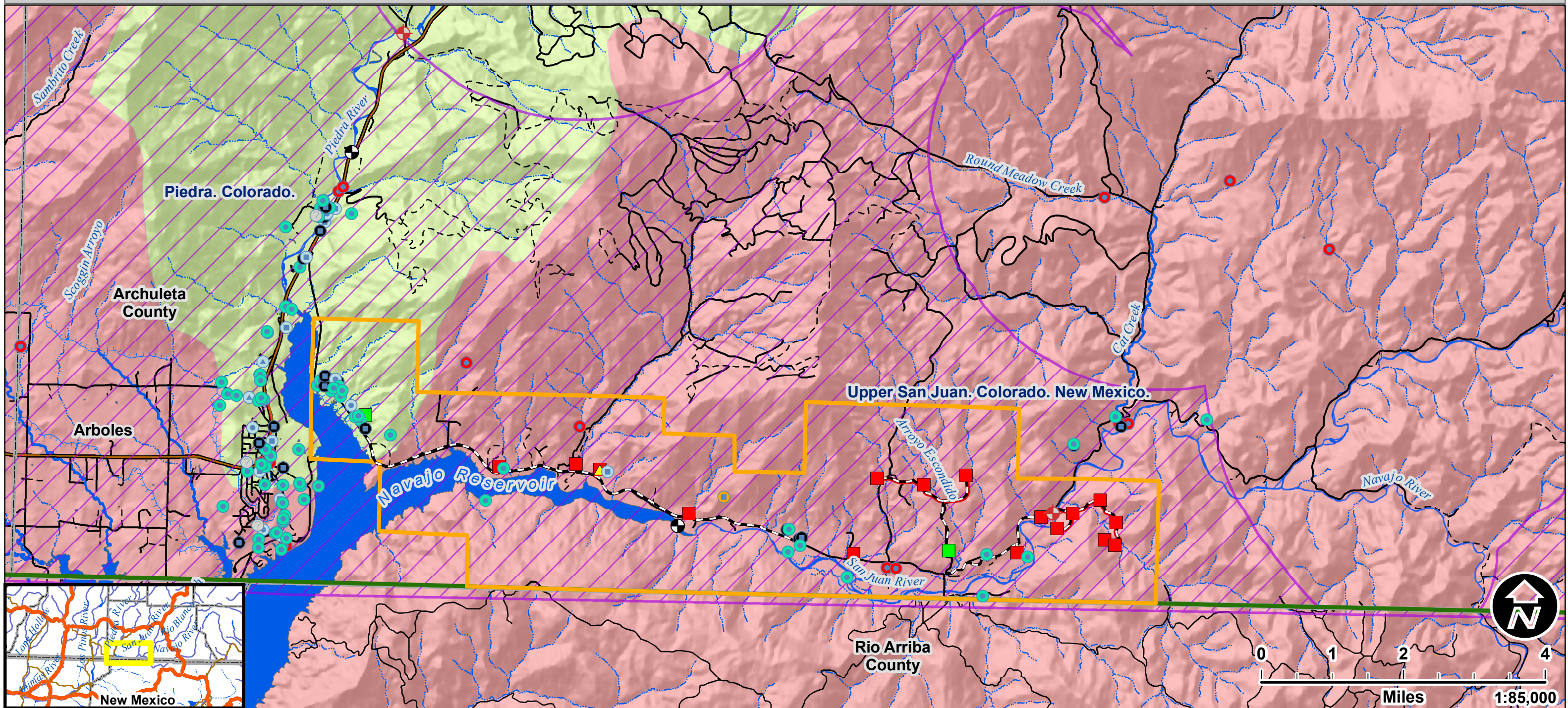
- Prime Farmland if Irrigated
- Prime Farmland if Irrigated and Protected from Flooding
- Highly Erodible Soil

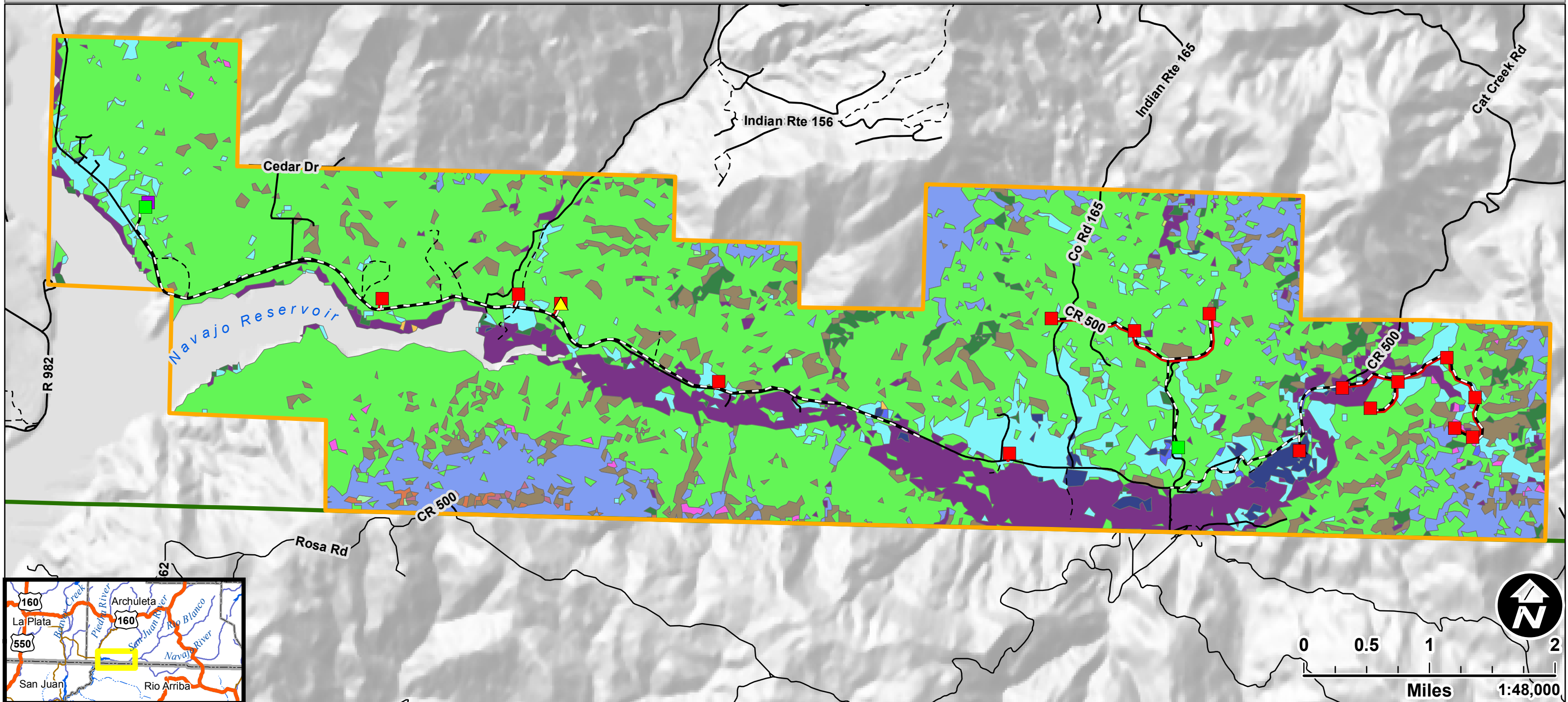
NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 6: PRIME FARMLAND AND HIGHLY ERODIBLE SOILS

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES
















DATE: 5/7/2013














LEGEND

SW ReGAP Vegetation Classes

	Colorado Plateau Mixed Bedrock Canyon and Tableland		Rocky Mountain Gambel Oak-Mixed Montane Shrubland
	Colorado Plateau Pinyon-Juniper Woodland		Rocky Mountain Lower Montane-Riparian Woodland and Shrubland
	Inter-Mountain Basins Big Sagebrush Shrubland		Rocky Mountain Lower Montane-Foothill Shrubland
	Inter-Mountain Basins Greasewood Flat		Rocky Mountain Montane Dry-Mesic Mixed Conifer Forest and Woodland
	Inter-Mountain Basins Semi-Desert Grassland		Rocky Mountain Montane Mesic Mixed Conifer Forest and Woodland
	Inter-Mountain Basins Semi-Desert Shrub Steppe		Rocky Mountain Ponderosa Pine Woodland
	North American Arid West Emergent Marsh		Southern Rocky Mountain Montane-Subalpine Grassland
			Southern Rocky Mountain Pinyon-Juniper Woodland

	Existing Well Pad
	Proposed New Well Pad
	Proposed Salt Water Disposal Well
	Proposed Compressor Station
	Proposed Pipeline
	Proposed Access Roads
	Existing Roads
	Southern Ute Reservation Boundary
	North Carracas Area Of Mutual Interest

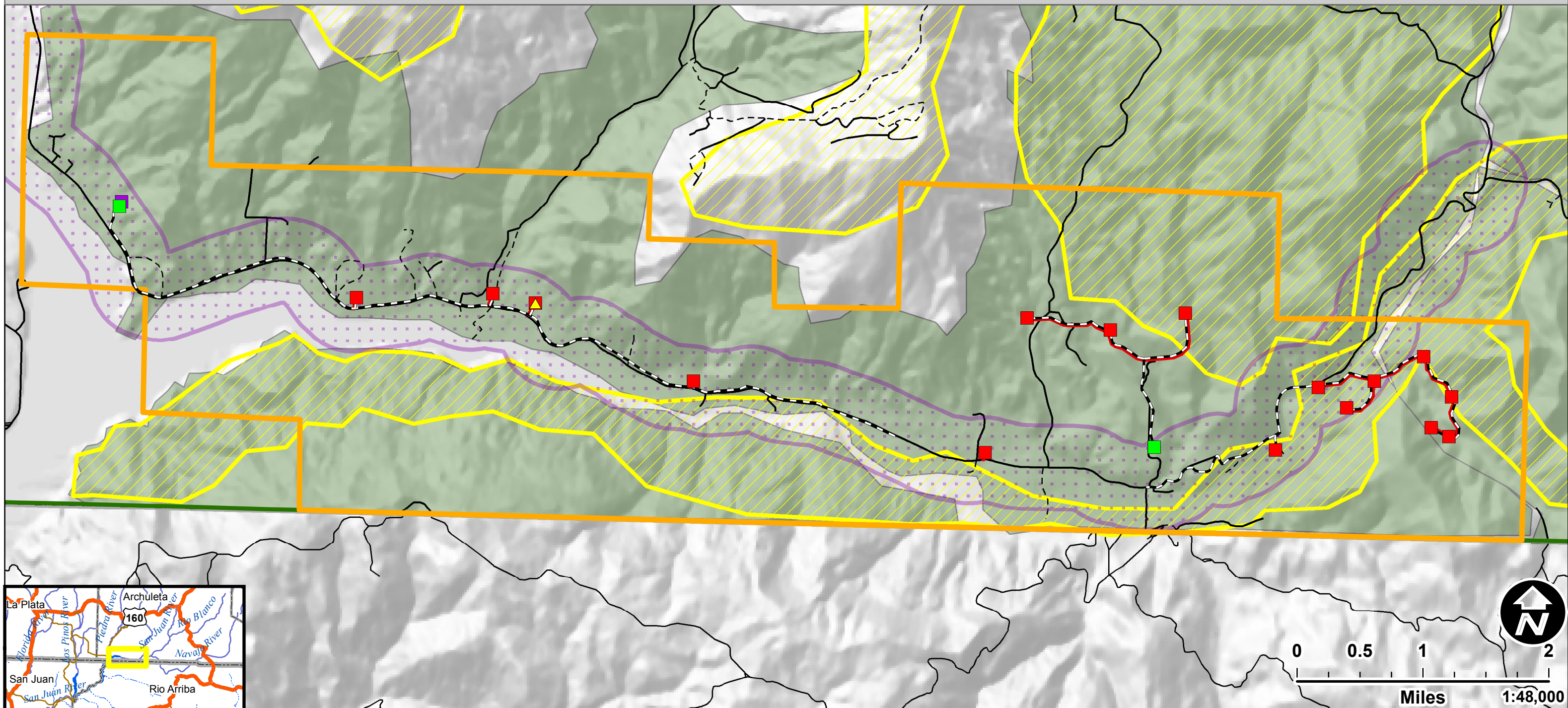
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT













MAP 8: VEGETATION RESOURCES

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

- | | | |
|--|--|--|
|  Existing Well Pad |  Proposed Pipeline |  CR 500 1/3 Mile Buffer |
|  Proposed New Well Pad |  Proposed Access Roads |  Calving/ Fawning Areas |
|  Proposed Salt Water Disposal Well |  Existing Roads |  Big Game Winter Range |
|  Proposed Compressor Station |  Southern Ute Reservation Boundary | |
| |  North Carracas Area of Mutual Interest | |

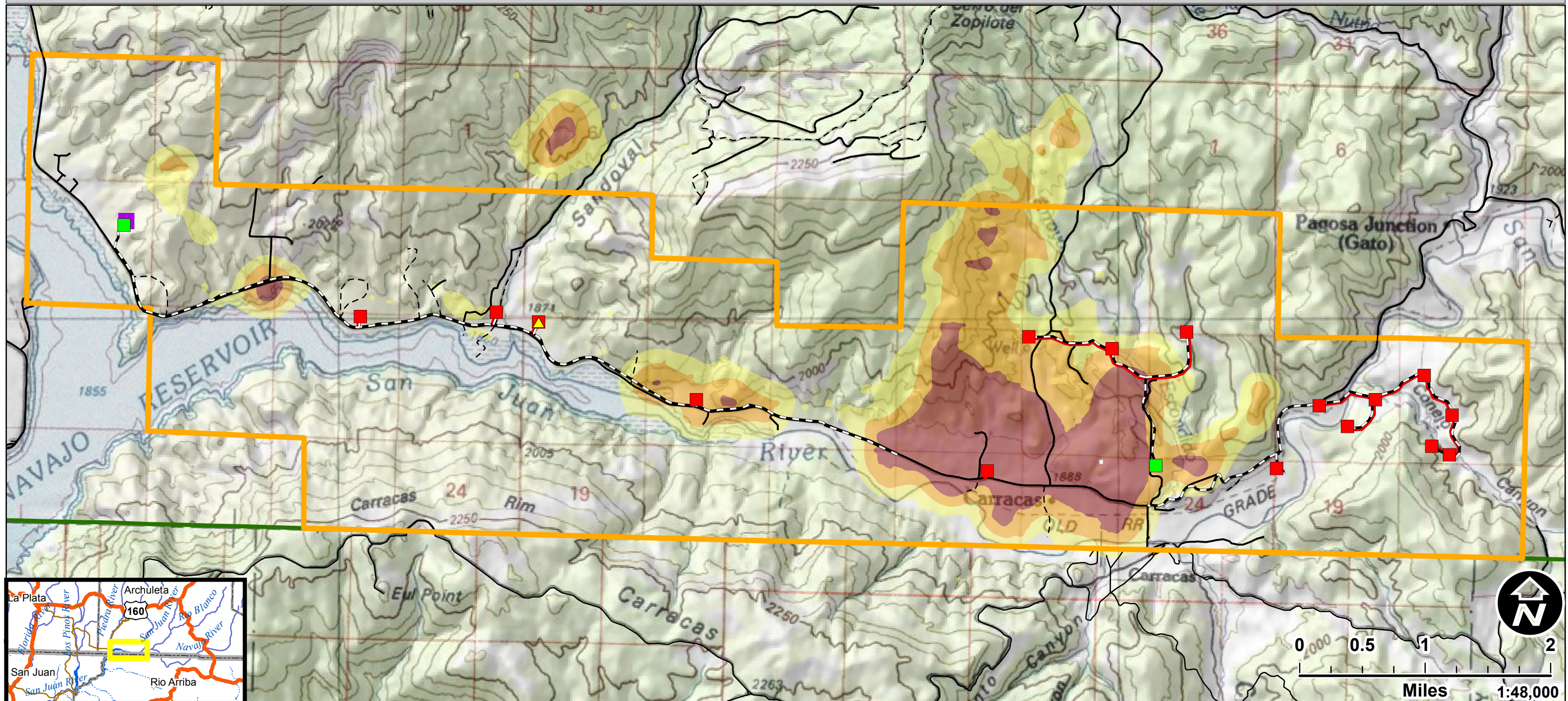
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 9: BIG GAME WINTER RANGE CALVING AND FAWNING AREA

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013

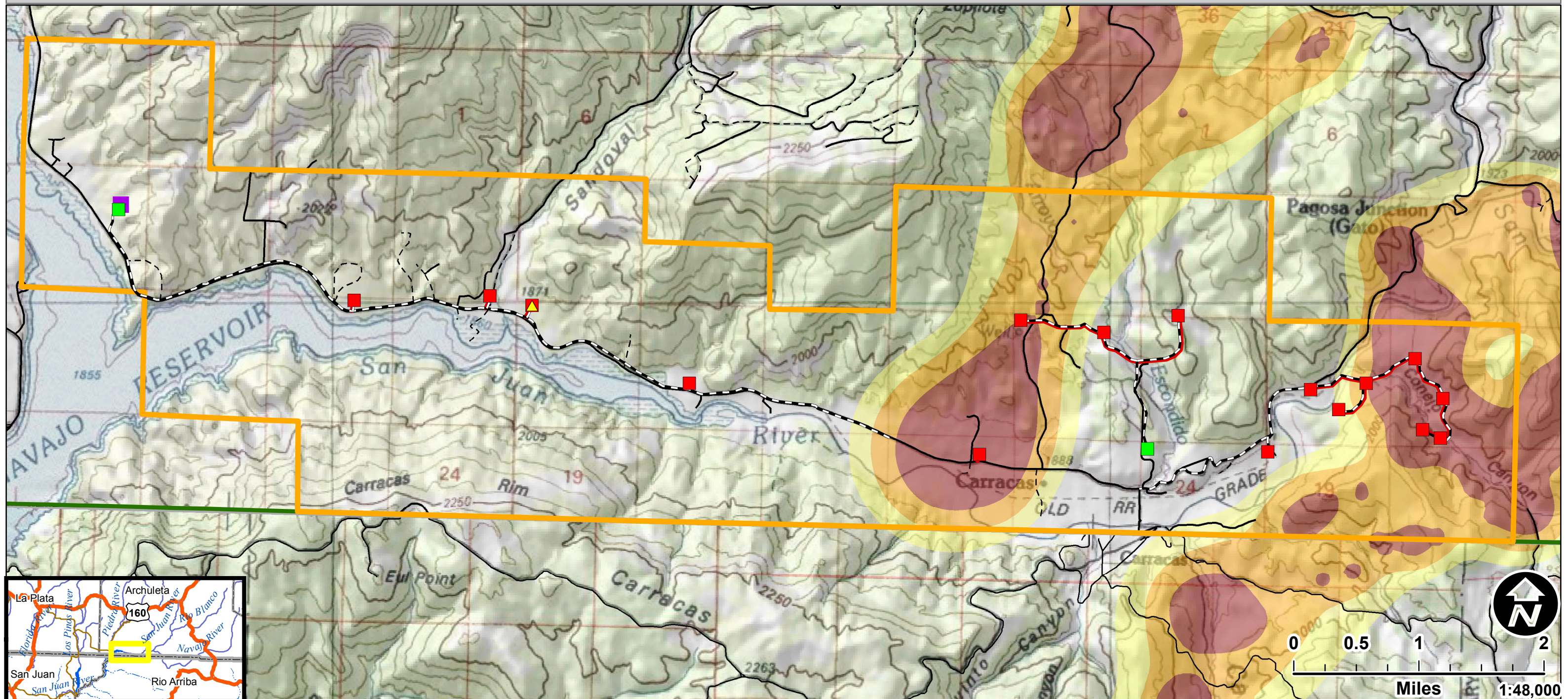


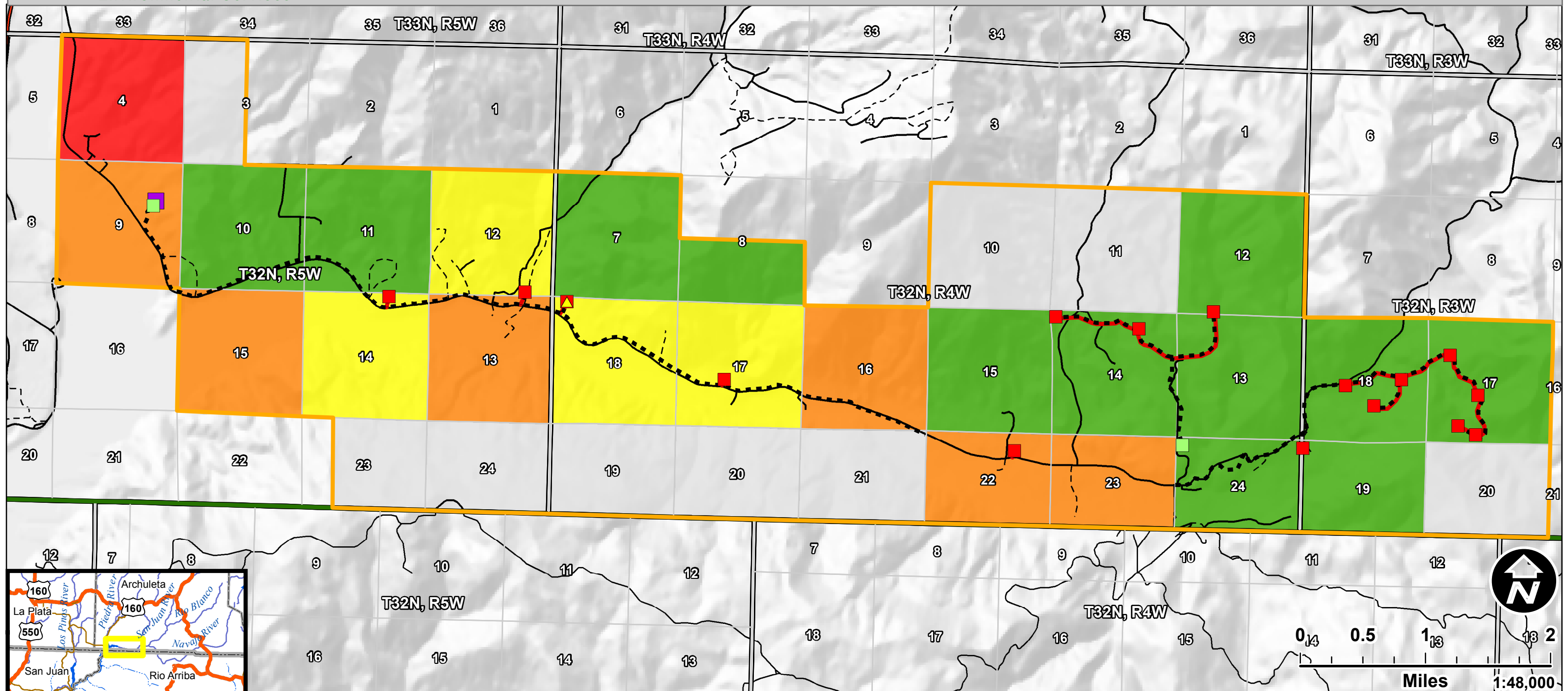
NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 10: DEER MOVEMENT IN WINTER RANGE (LIMITED, SMALL SAMPLE SIZE)

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013





LEGEND

- Existing Well Pad
- Proposed New Well Pad
- ▲ Proposed Salt Water Disposal Well
- Proposed Compressor Station
- Proposed Pipeline
- Proposed Access Roads
- Existing Roads
- Southern Ute Reservation Boundary
- North Carracas Area of Mutual Interest

Coordinate System: NAD 1983 UTM Zone 13N

Archaeological Survey: Site Density Per Section

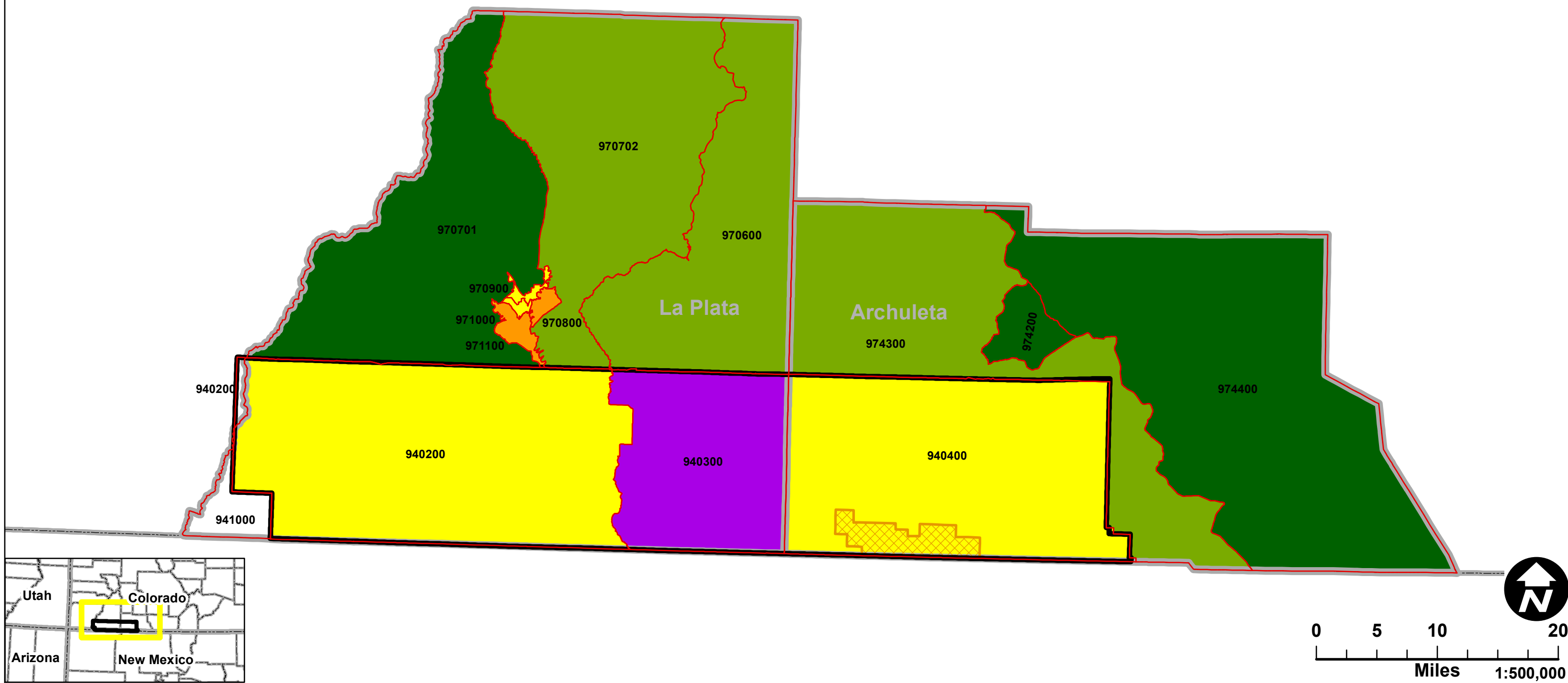
- No Sites
- 1 - 5 Sites
- 6 - 10 Sites
- 11 - 15 Sites
- 16 Sites

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 12: ARCHAEOLOGICAL SITE DENSITY

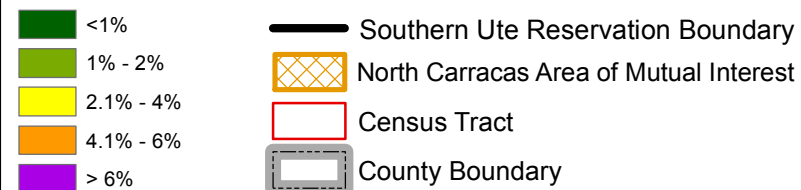
ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

PERCENTAGE OF POPULATION AMERICAN INDIAN



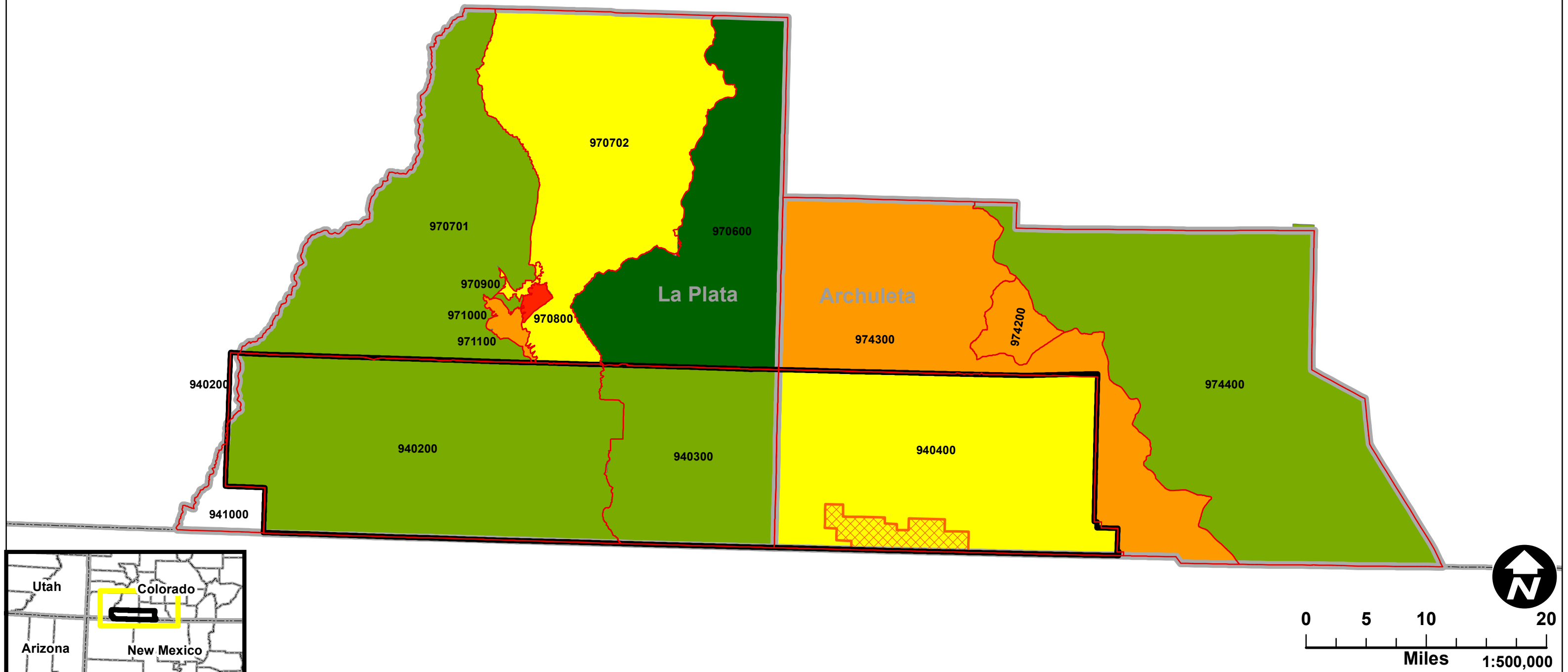
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 13: AMERICAN INDIAN POPULATIONS PER CENSUS TRACT LA PLATA AND ARCHULETA COUNTIES

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

Census Data

Persons Living Below Poverty Level

- 0%-5%
- 6%-10%
- 11%-15%
- 16%-20%
- 20%-100%

- Southern Ute Reservation Boundary
- North Carracas Area of Mutual Interest
- Census Tract
- County Boundary

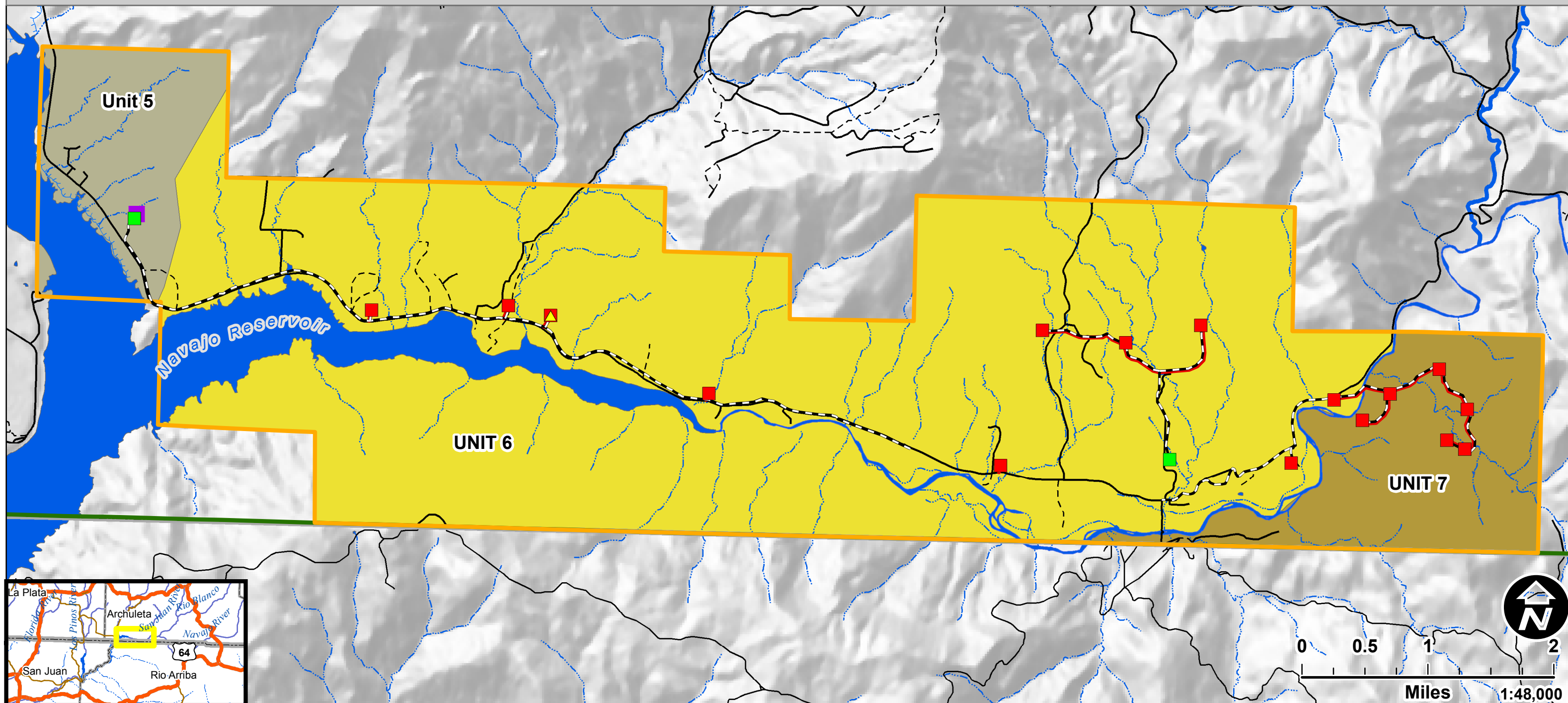
Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 14: POVERTY LEVELS, LA PLATA AND ARCHULETA COUNTIES PER CENSUS TRACT

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

- Existing Well Pad
- Proposed New Well Pad
- ▲ Proposed Salt Water Disposal Well
- Proposed Compressor Station
- Proposed Pipeline
- Proposed Access Roads
- Existing Roads
- Southern Ute Reservation Boundary
- North Carracas Area of Mutual Interest

Management Units

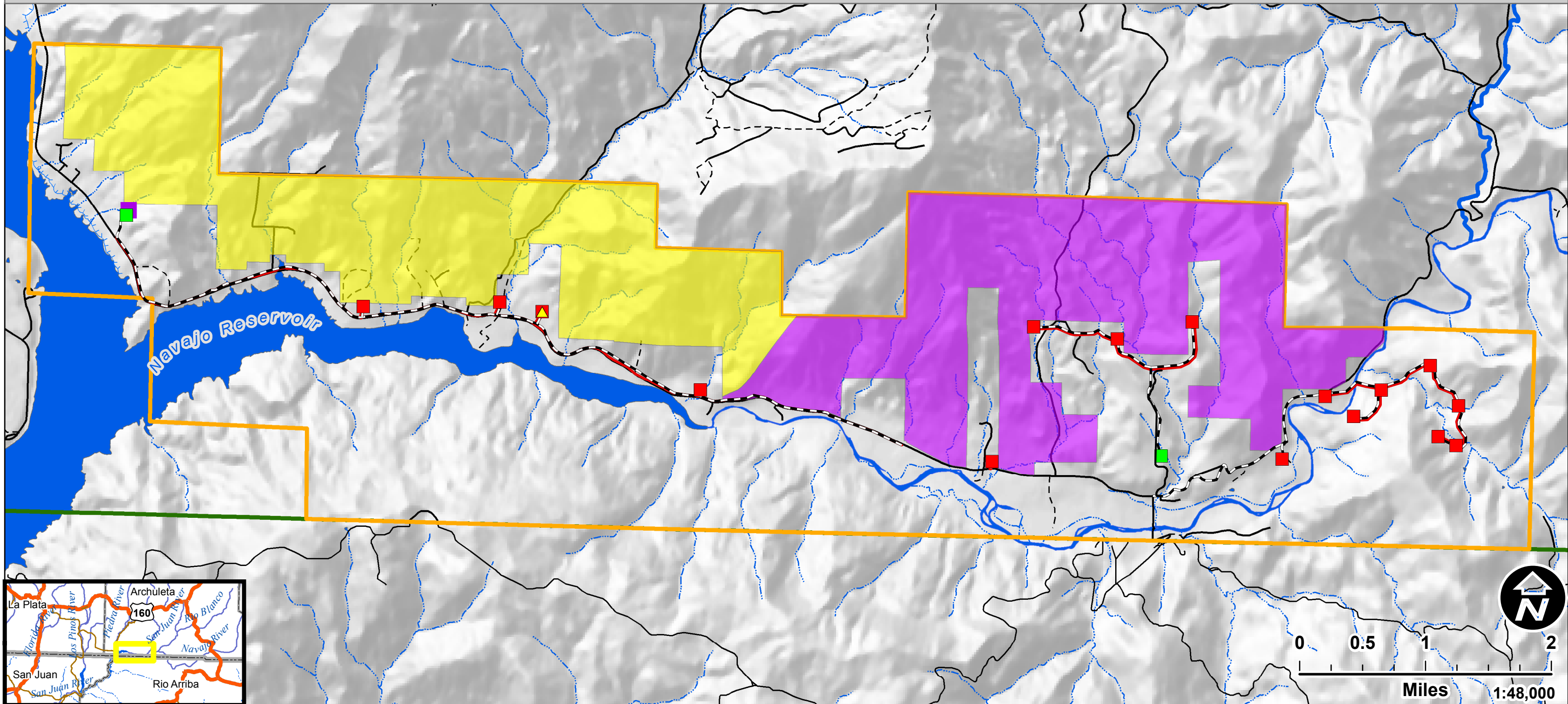
- Unit 5: Piedra
- Unit 6: Lower San Juan
- Unit 7: Upper San Juan

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 15: LAND MANAGEMENT UNITS

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

- | | |
|---|--|
| ■ Existing Well Pad | --- Proposed Pipeline |
| ■ Proposed New Well Pad | --- Proposed Access Roads |
| ▲ Proposed Salt Water Disposal Well | --- Existing Roads |
| ■ Proposed Compressor Station | --- Southern Ute Reservation Boundary |
| | --- North Carracas Area of Mutual Interest |

Range Lands

Grazing Units

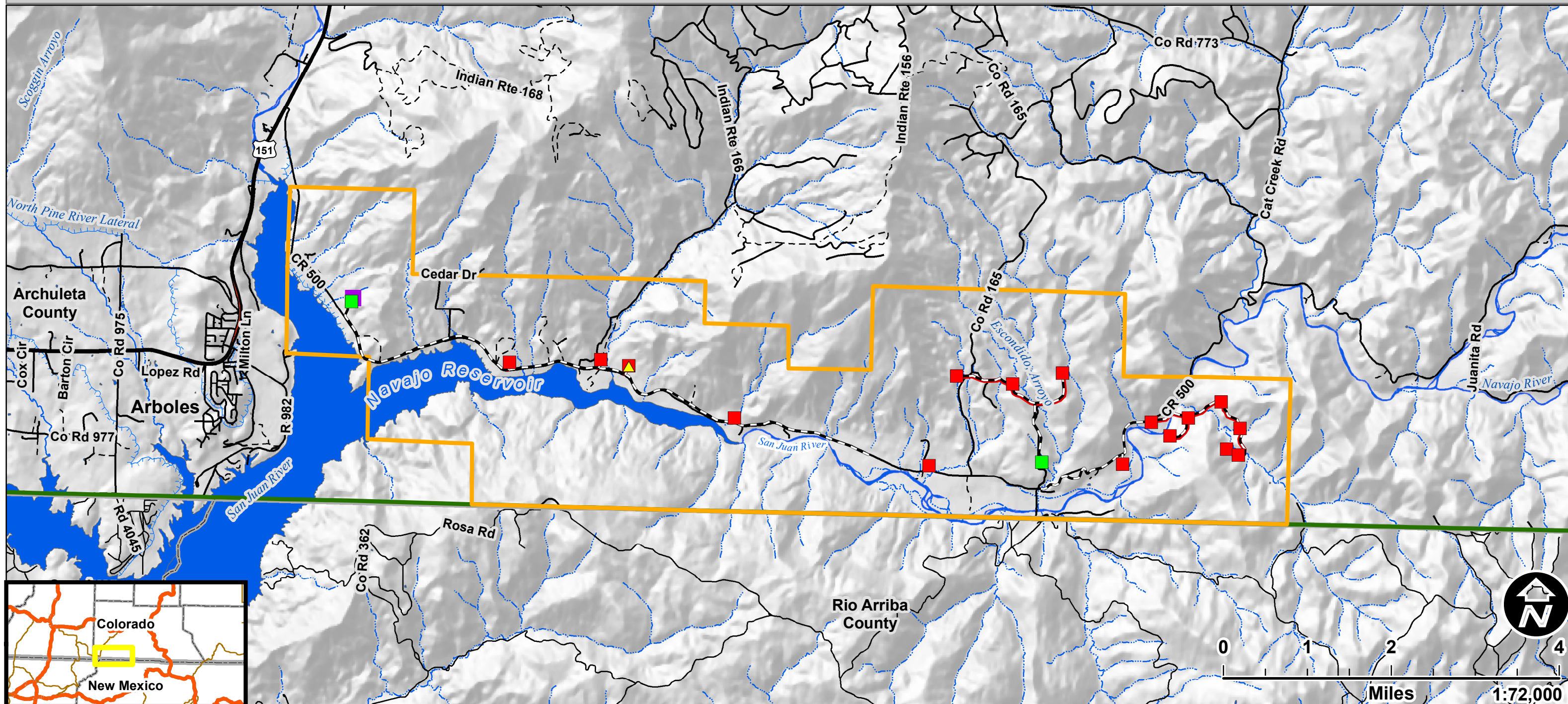
- | | |
|---------------------------------------|----------|
| ■ | Sandoval |
| ■ | Vega |

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 16: RANGE LAND GRAZING UNITS

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013



LEGEND

- | | | |
|---|--|--|
| ■ Existing Well Pad | --- Proposed Pipeline | --- Highway |
| ■ Proposed New Well Pad | --- Proposed Access Roads | --- County/BLM Roads |
| ▲ Proposed Salt Water Disposal Well | --- Southern Ute Reservation Boundary | --- Trail/ Minor Road |
| ■ Proposed Compressor Station | --- North Carracas Area of Mutual Interest | |

Coordinate System: NAD 1983 UTM Zone 13N

NORTH CARRACAS PLAN OF DEVELOPMENT

MAP 17: TRANSPORTATION CORRIDORS

ARCHULETA COUNTY, CO
TOWNSHIP 32 NORTH, RANGE 3, 4, & 5 WEST
CARRACAS AND PAGOSA JUNCTION,
CO QUADRANGLES

DATE: 5/7/2013