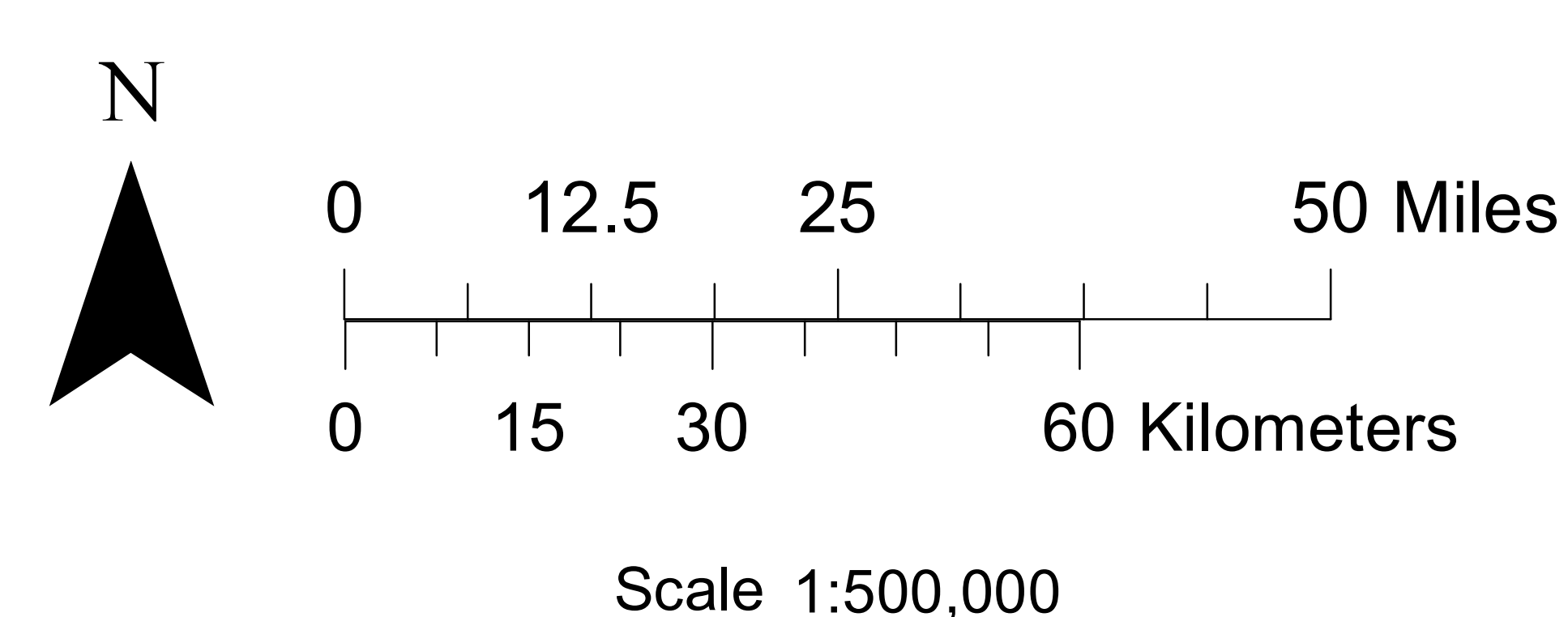
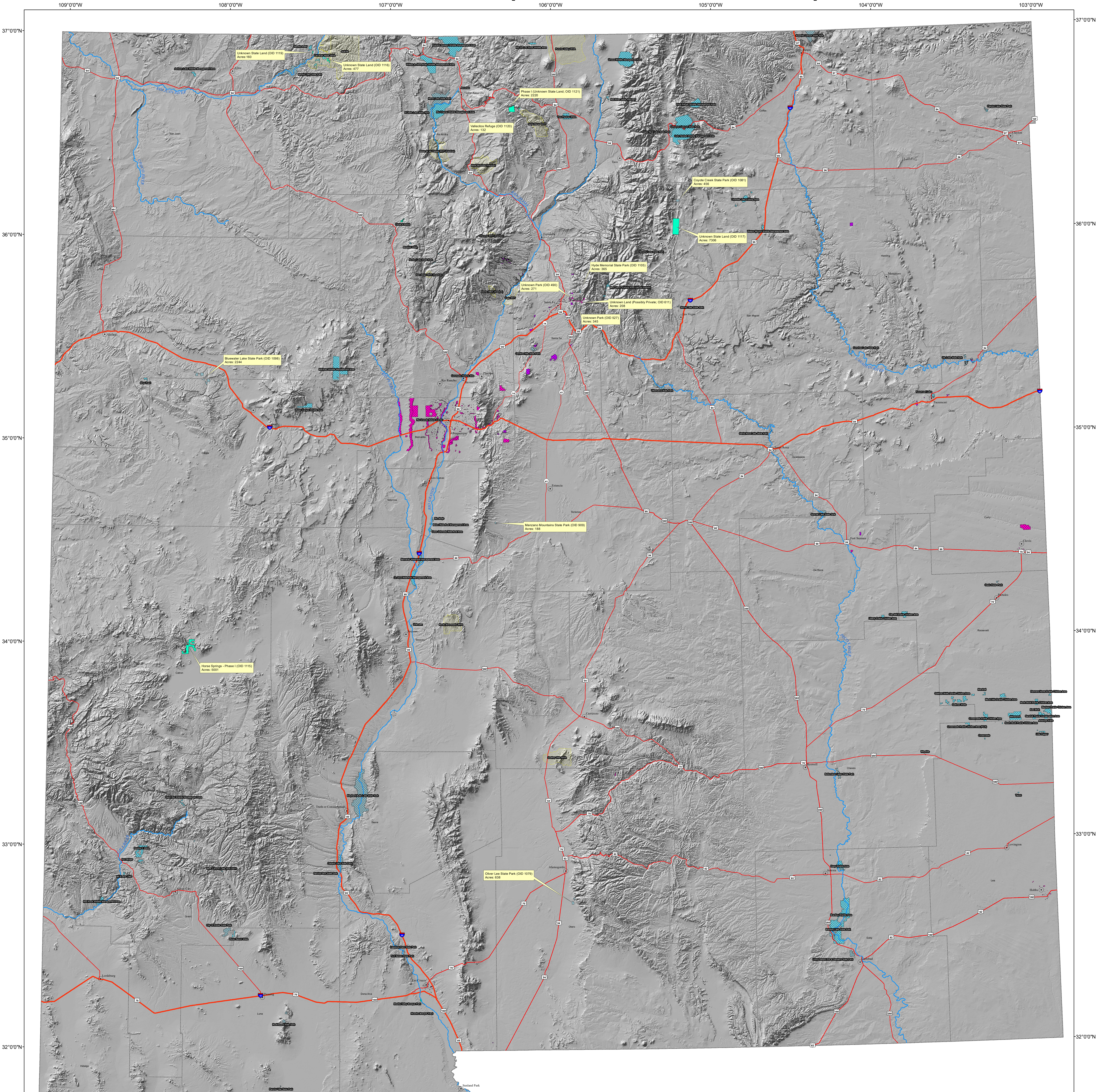
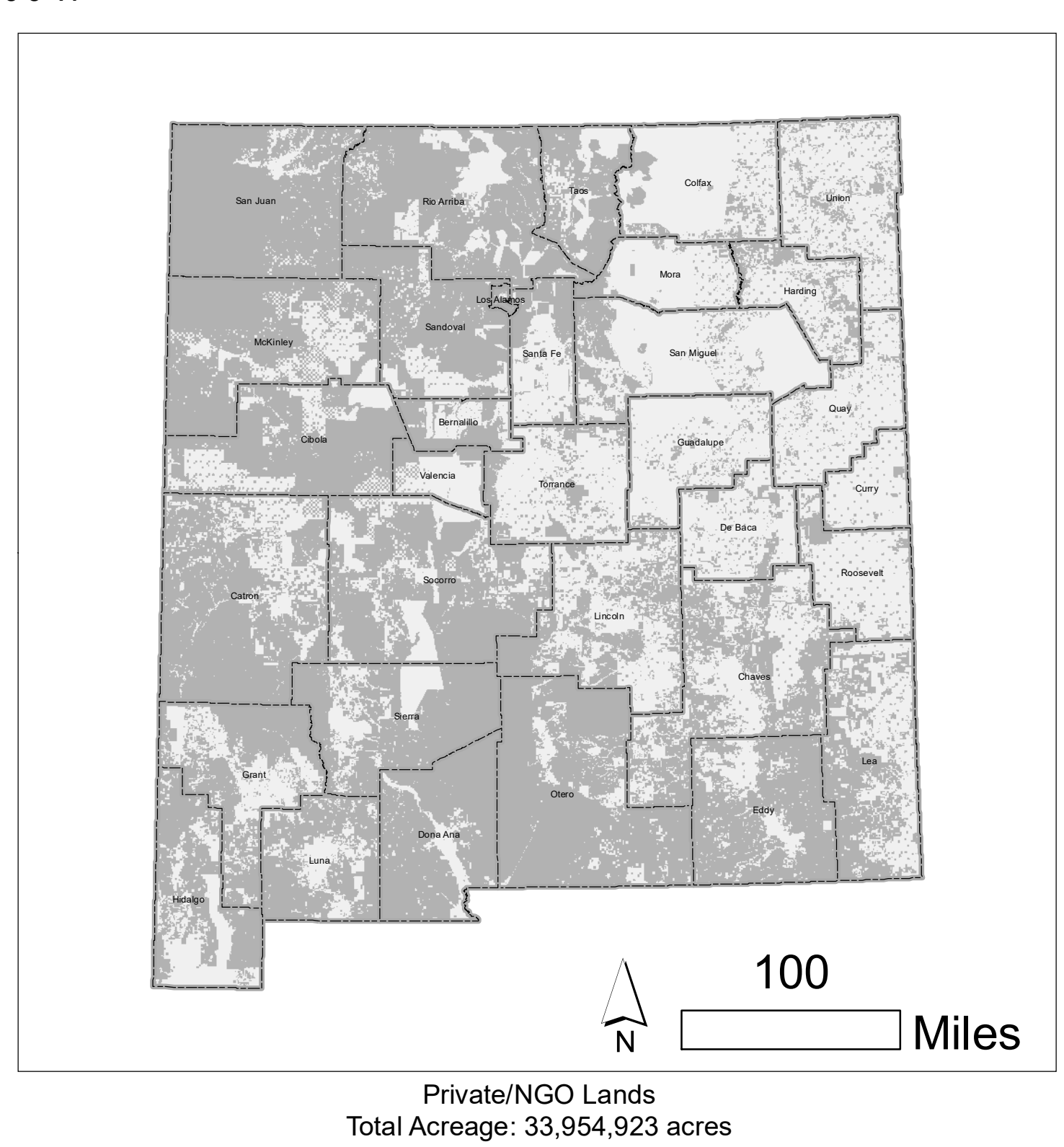
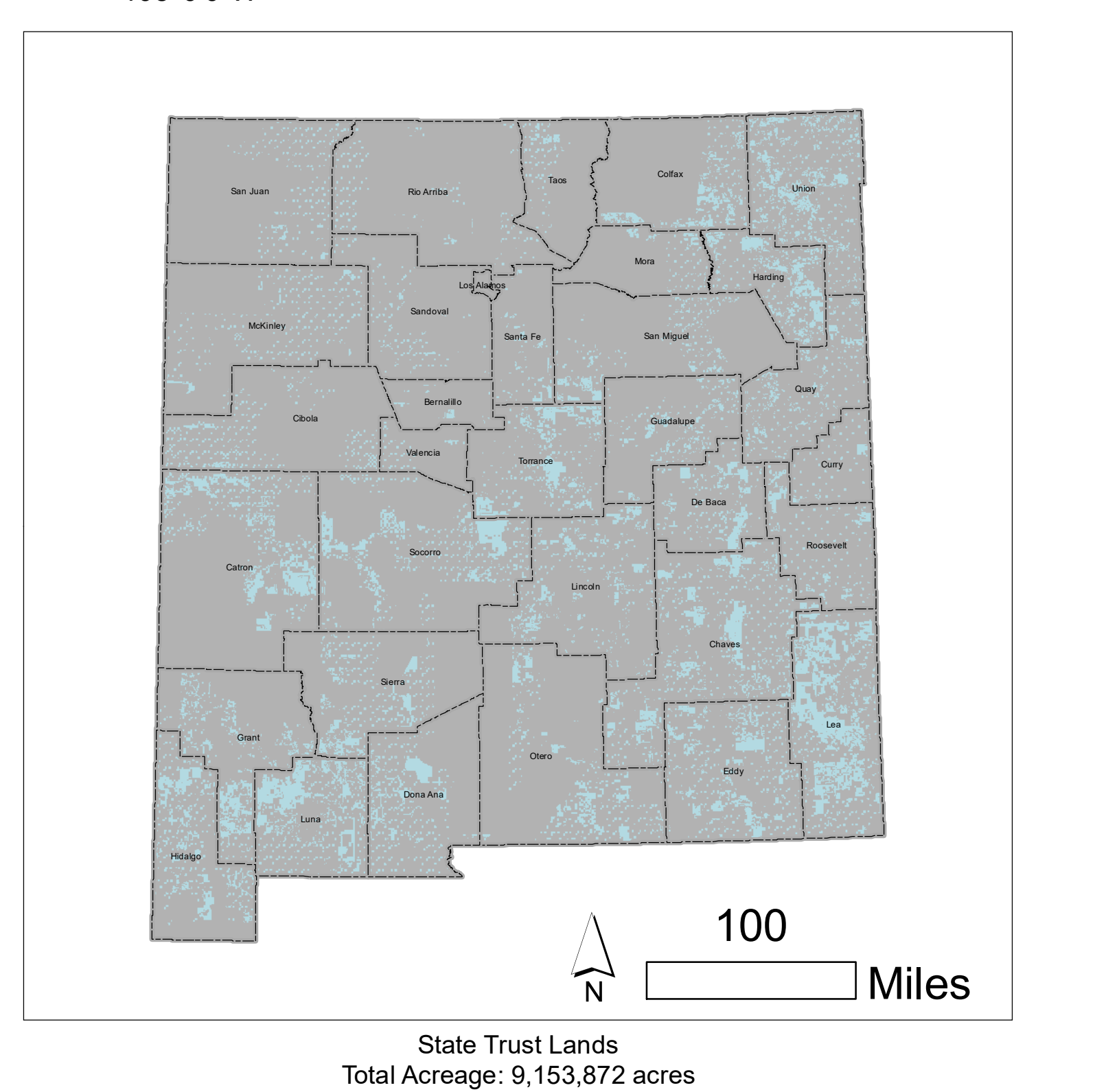
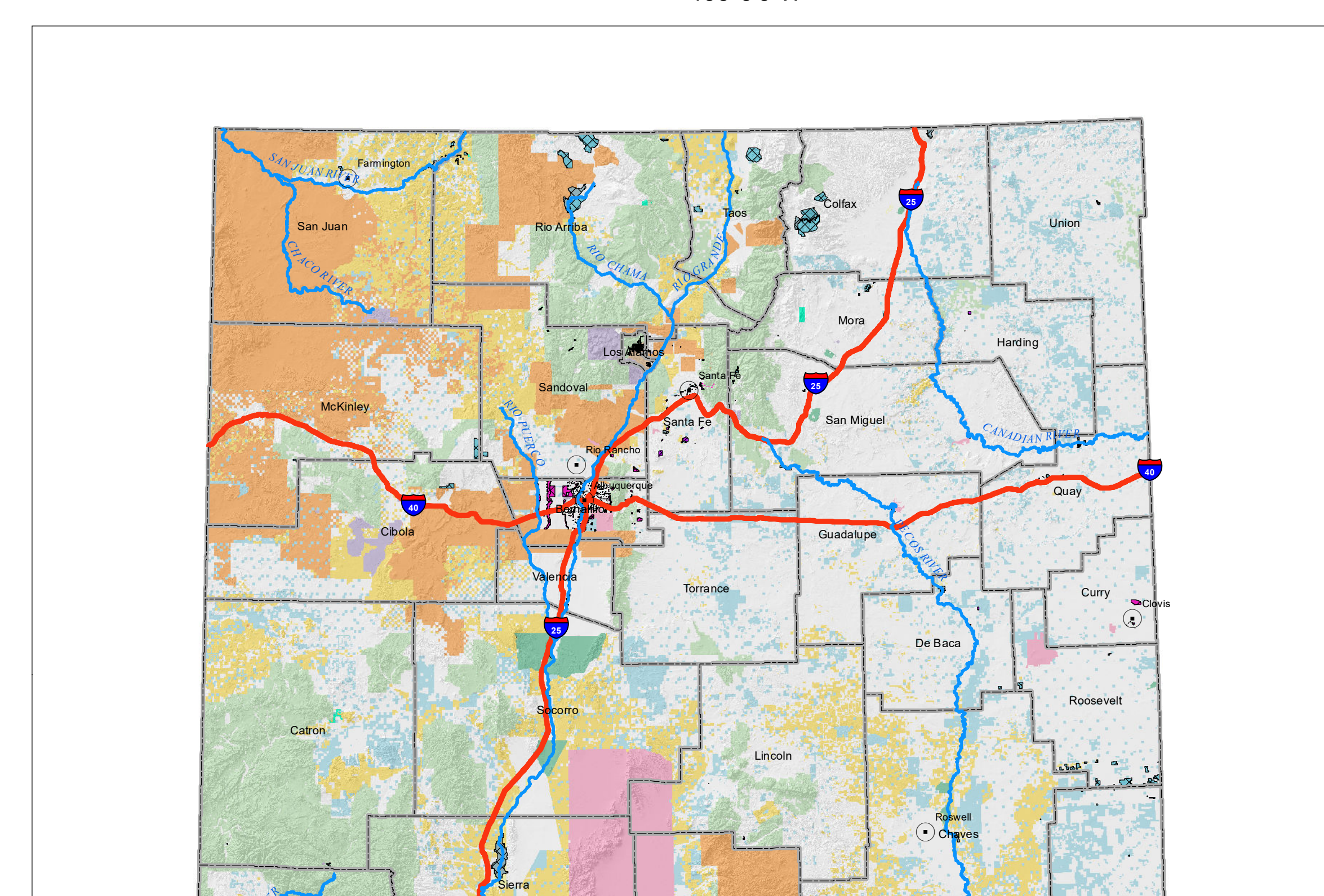
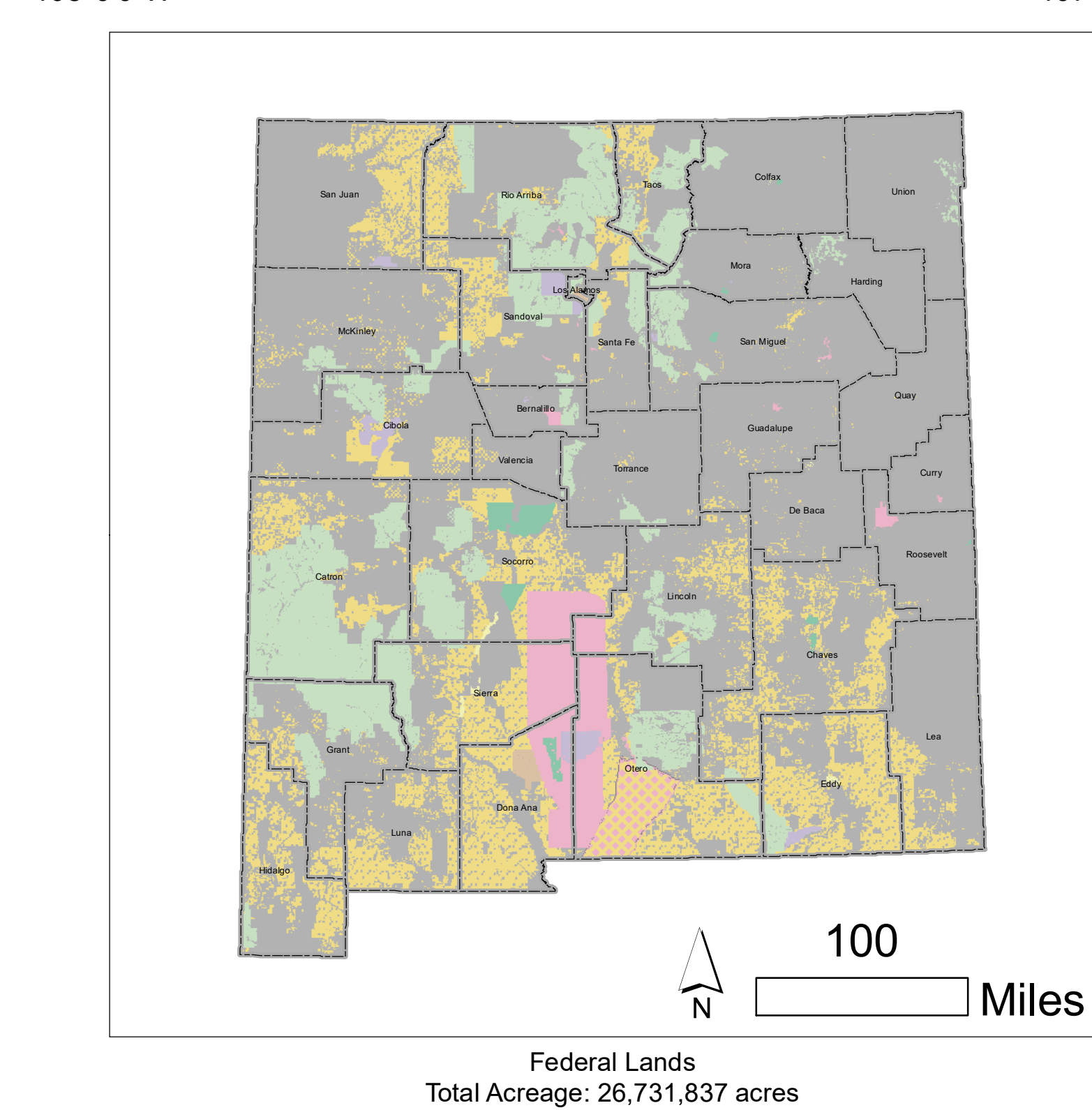
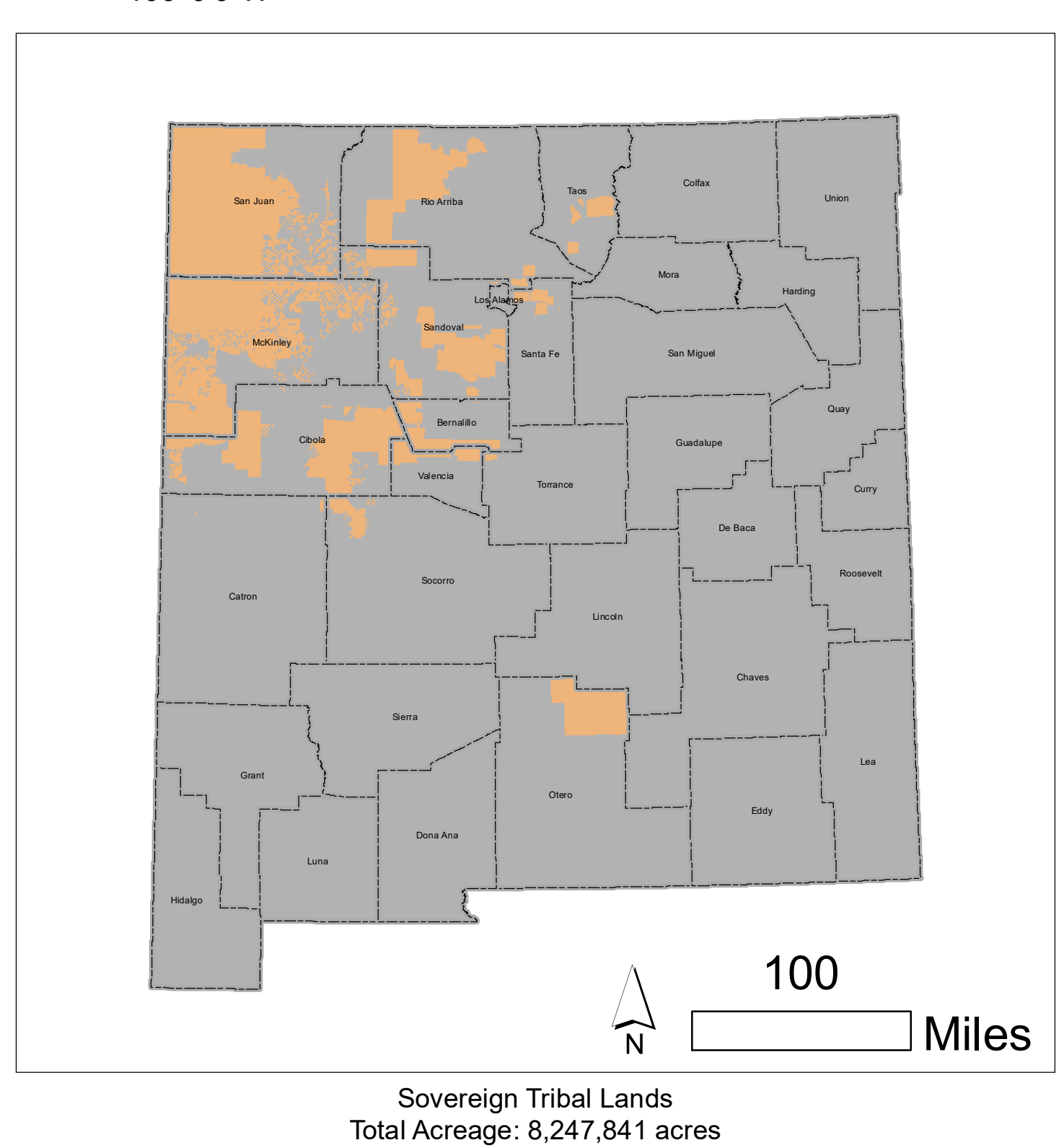
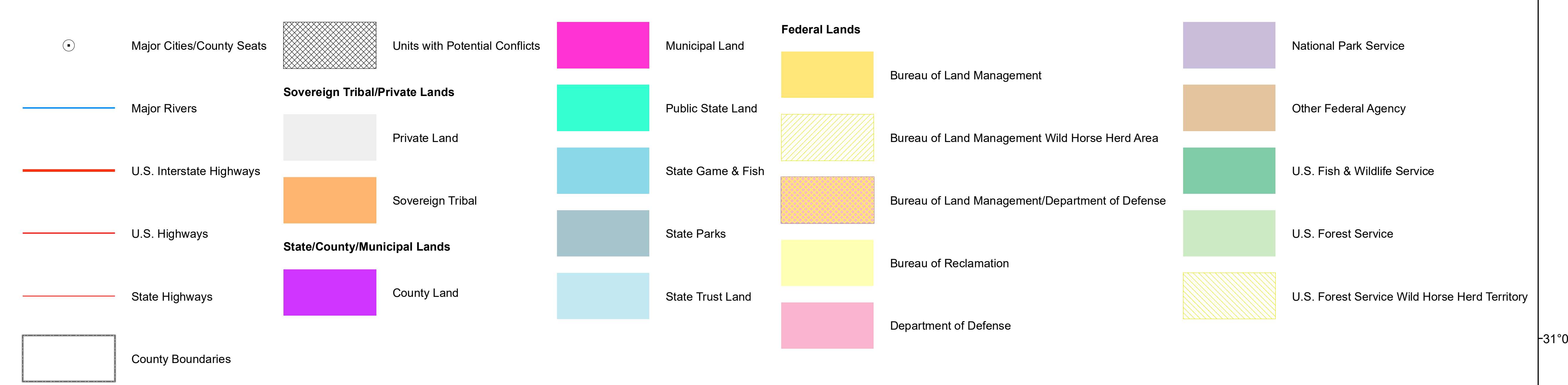


Examination of New Mexico Public Lands in regards to the Wild Horse Act (NMSA 77-18-5, 2007)



Map Coordinate Projection: USA Contiguous Albers Equal Area Conic USGS
Central Meridian -107.0



The New Mexico Wild Horse Act (NMSA 77-18-5, 2007) defines a wild horse as an unclaimed horse on public land that is not an entity. The statute indicates New Mexico public lands do not include federal lands controlled by the Bureau of Land Management, USDA Forest Service or New Mexico State Trust Lands. Further, the statute requires certain New Mexico-designated wild horses be placed on state or private preserves, related to New Mexico public lands or held for adoption. Knowing spatial distribution and extent of NM public lands is one important step in implementation of the NM wild horse statute. We used criteria to identify NM public lands that identified all lands managed by a state agency or local government. All federal lands were removed from consideration as NM public lands. New Mexico public land units of less than 100 acres or those falling within or abutting municipalities were classified as representing potential conflicts for ecological and human health and safety purposes. Because public lands are created with a specific purpose and state agencies responsible for management of remaining available NM public land to identify potential opportunities or conflicts to implementation of the NM wild horse statute for specific NM public land units. Of a total of 921 units identified as New Mexico public land, 14 units had no expressed potential for conflict in implementing the NM wild horse statute. Potential conflicts with implementation of the NM wild horse statute includes units below the minimum 100 acre minimum (76), units not owned or entirely publicly owned by the state/county agency (50), units within or abutting municipalities (62), units with high human and horse recreational use (3), and units with other potential conflicts (26). 6 of the 14 units having no expressed potential conflicts were classified as unknown ownership in the database. Ownership needs to be determined. Regardless of the potential for opportunity or conflict, further review of this information is warranted. Ultimately, the New Mexico Government has authority over addressing opportunities and conflicts associated with implementation of the NM wild horse statute.

TABLE 1: Minimum acreage to support two 900 pound horses based on estimated forage production levels and percent use of forages associated with ecologically sustainable use.

Lbs/Acre ¹	25% use ²	40% use ²
443 ± 26	176	110
3109 ± 69	70	44

¹Estimated annual forage production was based on available data and not a random sample and may not accurately represent production for specific New Mexico rangeland habitats. Estimates represent average low and high forage production across all habitats in the state and therefore cannot vary by range production. Forage production is highly variable based on timing and amount of precipitation.

²Research indicates grazing use levels of about 20% to 40% are ecologically sustainable in NM rangeland habitats. We used these values to develop a range of carrying capacities that generally encompasses the number of horses needed to support 2 horses.

Assuming single species grazing (horses only), fail to good range habitat conditions and average climate conditions, two 900-pound New Mexico wild horses would need between 44 and 176 acres to meet their nutritional needs in a sustainable manner (Table 1). Based on the scientific literature, two horses were determined to represent the minimum number of horses necessary to comprise a horse herd. Estimates do not account for water availability or terrain features. In some areas, the amount of land needed to sustainably support NM wild horses may differ substantially from Table 1 estimates. Estimates illustrate approximate suitability in amount of rangeland habitat needed to support NM wild horses. Assessments and long-term monitoring would be needed to estimate carrying capacity for a specific area.

Available Public Lands: 20,010 acres
Public Lands with Potential Conflicts: 364,697 acres

This map is the second in a series of maps being developed for New Mexico Livestock Board to estimate New Mexico public lands potentially under the purview of the New Mexico wild horse act (NMSA 77-18-5 Wild Horses, conformation, history and decontaminated acid testing, Spanish colonial horses, both created (2007)). The map may not represent accurately specific land areas subject to the statute. No endorsement by New Mexico State University or any state agency listed or identified on the map is implied. Extent and additional digital data sets are being reviewed to ensure accurate surface ownership representation across the state of New Mexico. Accuracy based on data sets and limitations defined within appropriate metadata.
12/16/2019 Map Series 2b V.1.3
Map Authors: Product of New Mexico State University's Range Improvement Task Force (RITF) and Center for Applied Spatial Ecology (CASE). For further information contact Dr. Samuel T. Smallage (575-646-0944; ssmallage@nmsu.edu).
Data Sources: Data were downloaded from National Geographic Analysis Project (GNAP), Protected Areas Database of the United States (PAD-US 1.4) <http://species.nps.gov/index.html>.
The New Mexico Resource Geographic System (RGS) <http://rgs.nmsu.edu>.
New Mexico State Land Office <http://landscape.nvstatelands.org/US/State/Default.aspx>.
New Mexico Energy, Minerals and Natural Resources Department <http://www.enr.state.nm.us/SDF/Field/Park.html>.
Data.gov <https://www.data.gov> and ESRI.com <www.esri.com>