FIGURE 1.
Lea County Water Plan
Planning Region

Explanation

- **WIPP Site**
- **State Line**
- **County Line**
- **Perennial Streams/Rivers**
- **Intermittent Streams**
- **U.S. Highways**
- **State Highways**
- **Township/Range Line**
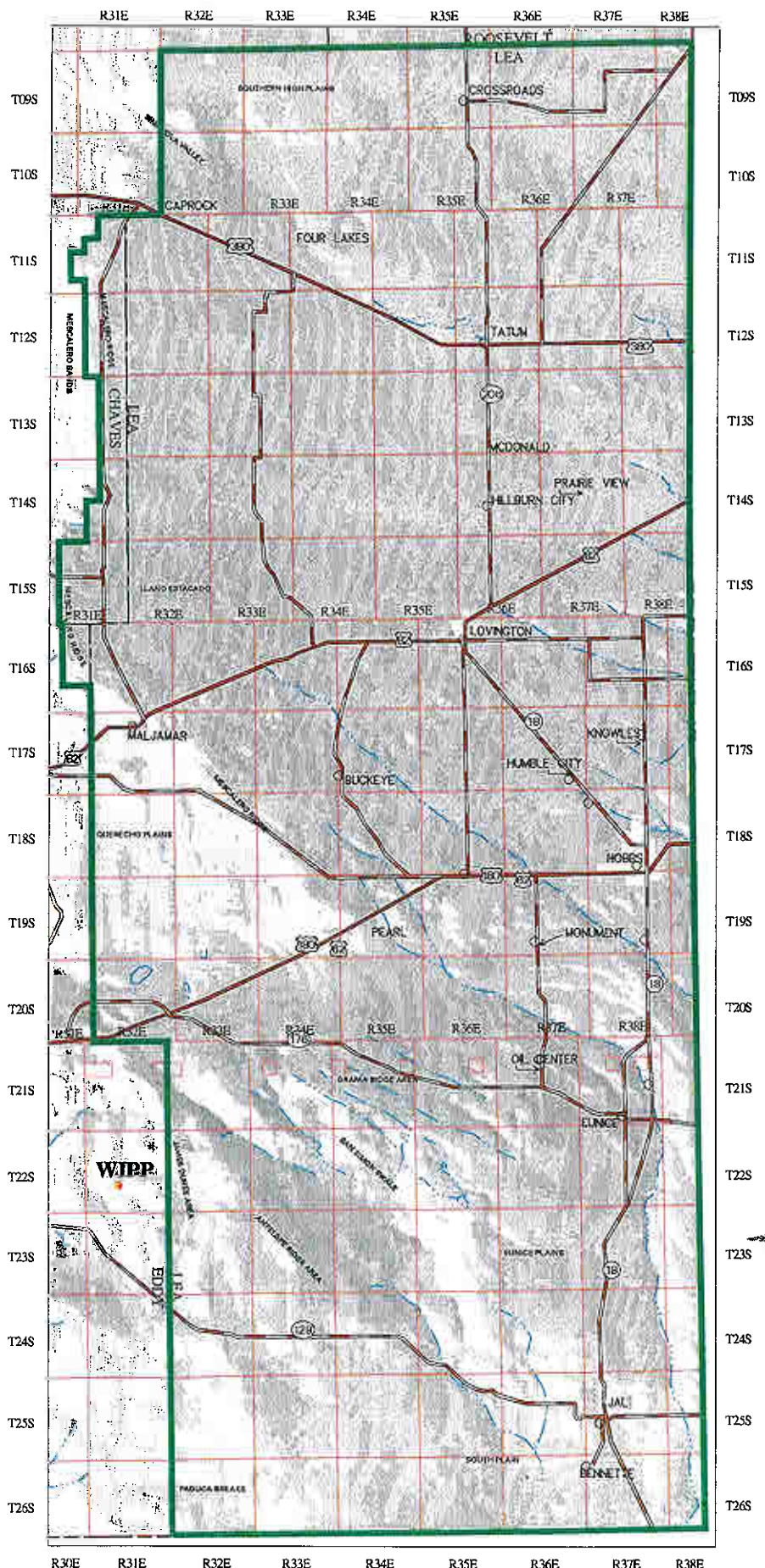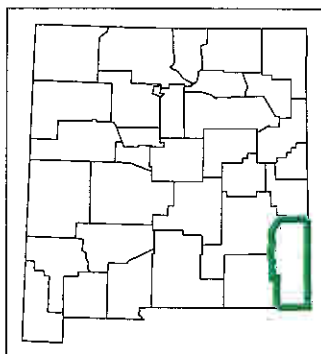- **Planning Region**

Produced by New Mexico Water Resources Research Institute, September 1999

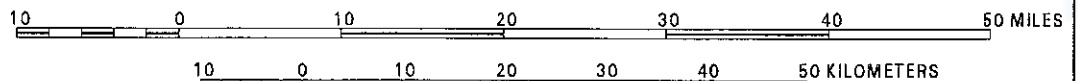Base map prepared by the U.S. Geological Survey

Compiled from digital data provided by the New Mexico Resource Geographic Information System Program (RGIS). Original base maps digitized from 1:500,000 mylar sheets and 100,000 paper maps for New Mexico. These data meets National Mapping Accuracy Standards for 1:500,000 and 1:100,000 scale maps. Shaded relief provided by RGIS and is based on 1:250,000 Digital Elevation Models (DEMs) created by the U.S. Geological Survey. Boundary of the Lea County Water Planning Region is based on the New Mexico Office of the State Engineer (OSE) administrative groundwater basins and New Mexico county boundaries. The cadastral accuracy of the OSE administrative basins and the county boundaries where verified by the use of 1:100,000 Public Land Survey System (PLSS) from RGIS.

Horizontal accuracy: At the scale of 1:500,000 at least 90 percent of the points tested are within 1/50th inch (0.02 inch), or within 254 ground meters, of their true location.
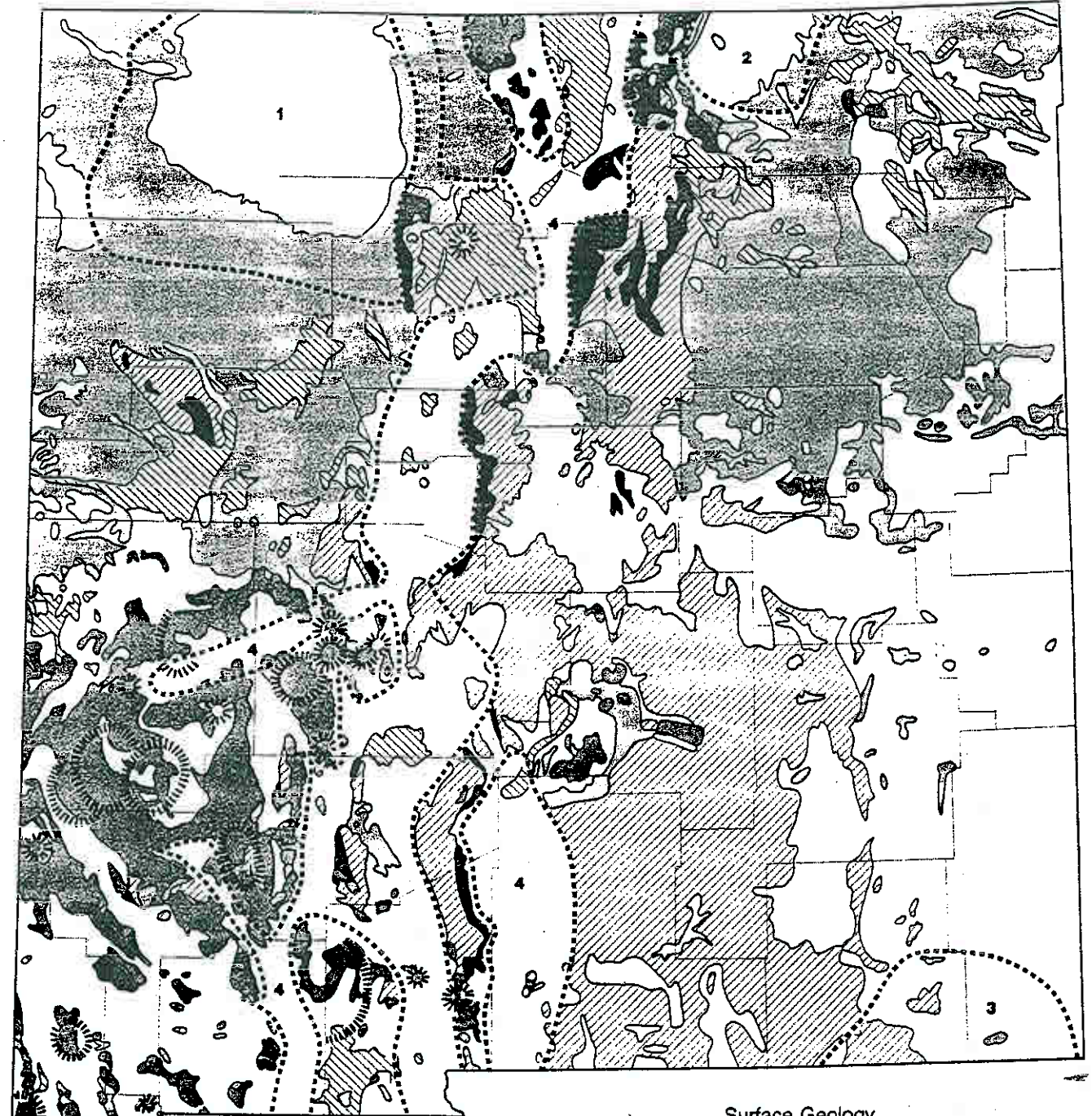
Projection: Universal Transverse Mercator, Zone 13, Units meters, NAD83.

SCALE 1: 750 000

10   0   10   20   30   40   50 MILES

10   0   10   20   30   40   50 KILOMETERS

Major Basins
1. San Juan
2. Raton
3. Delaware
4. Rio Grande Rift and Sub-Basins

········· Basin Boundaries

Cauldron or Caldera

Surface Geology

Precambrian

Paleozoic

Late Tertiary-Quaternary volcanic rocks

Cretaceous through mid-Tertiary-intrusive,
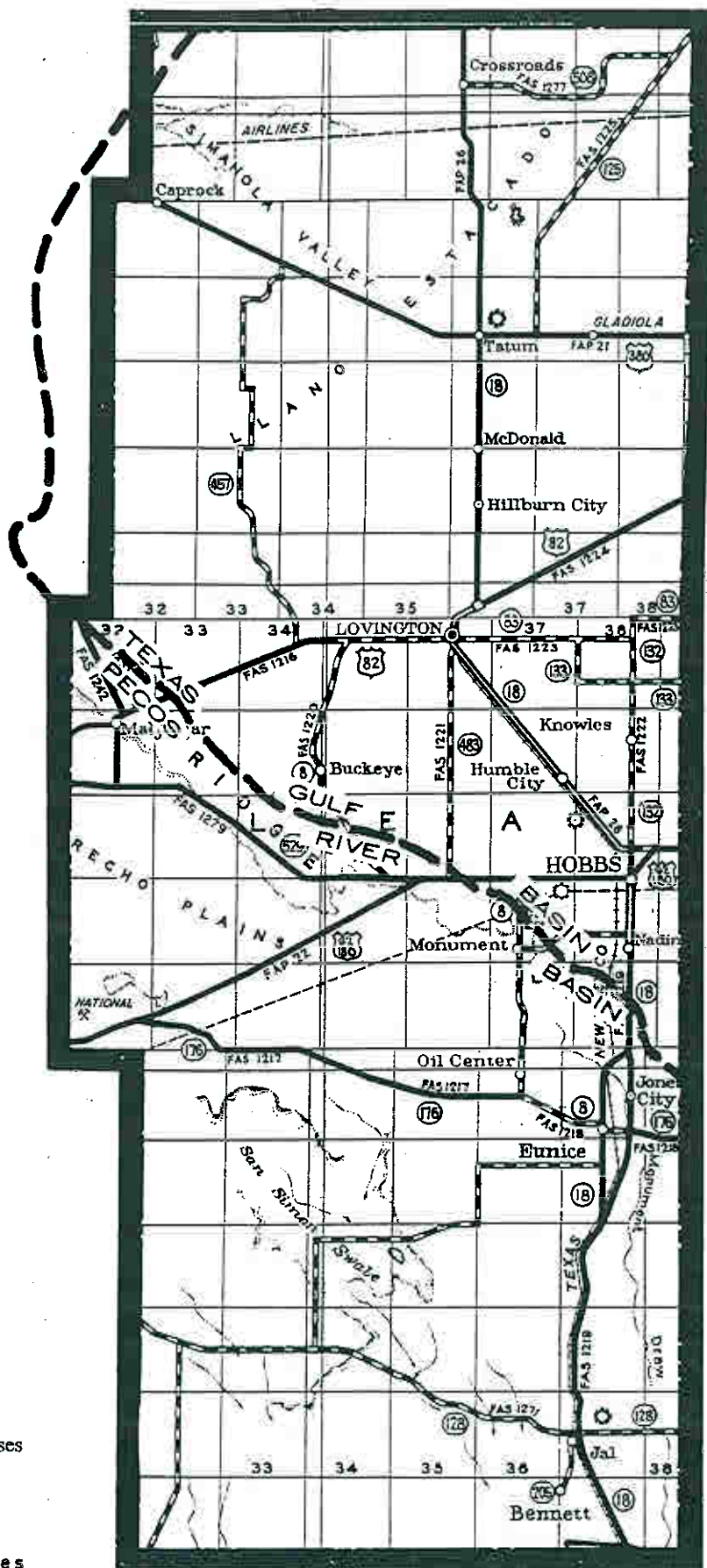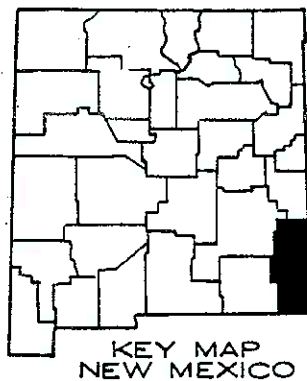volcanic and volcaniclastic rocks

Mesozoic

Cenozoic

Source: U.S.G.S. Map of N.M. (1965) and N.M.G.S.
Highway Geologic Map (1982).

0   10   20   30   40   50 Miles

FIGURE 2A

KEY MAP
NEW MEXICO

Crossroads

AIRLINES

Caprock

GLADIOLA

Tatum

McDonald

Hillburn City

LOVINGTON

Knowles

Buckeye

Humble City

A

HOBBS

Monument

National

Oil Center

Jones City

Eunice

Jal

Bennett

RECHO PLAINS

San Simon Swale

GULF E RIVER

TEXAS PECOS RIDGE

BASIN

0   6   12
|____|____| miles

LEA COUNTY

FIGURE 2B

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NEW MEXICO AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP

LEA COUNTY, NEW MEXICO

Scale 1:506,880

1 0 1 2 3 4 5 6 7 8 Miles

N

SOIL ASSOCIATIONS

AREAS DOMINATED BY SOILS OF THE SOUTHERN
HIGH PLAINS USED MAINLY FOR RANGE, DRYFARMED
CROPS, AND IRRIGATED CROPS

1   Kimbrough association: Nearly level and gently sloping,
gravelly and loamy soils that are very shallow and shallow
to indurated caliche

2   Kimbrough-Leo association: Nearly level and gently
sloping, gravelly and loamy soils that are very shallow
to moderately deep to indurated caliche

3   Portales-Stegall-Leo association: Nearly level and
gently sloping, loamy soils that are moderately deep to
soft or indurated caliche

4   Amarillo-Arvana association: Nearly level and gently
sloping, sandy and loamy soils that are moderately deep
and deep to soft or indurated caliche

5   Brownfield-Patricia-Tivoli association: Nearly level
and undulating, deep, sandy soils

AREAS DOMINATED BY SOILS OF THE SOUTHERN
DESERTIC BASINS, PLAINS, AND MOUNTAINS USED
MAINLY FOR RANGE

6   Simona-Tonuco association: Nearly level and gently
undulating, loamy and sandy soils that are shallow to
indurated caliche

7   Berino-Cacique association: Nearly level and gently
sloping, sandy soils that are deep and moderately deep
to soft or indurated caliche

8   Pyote-Maljamar-Kermit association: Gently undulating
and rolling, deep, sandy soils

Texture as used in this legend refers to that of the surface
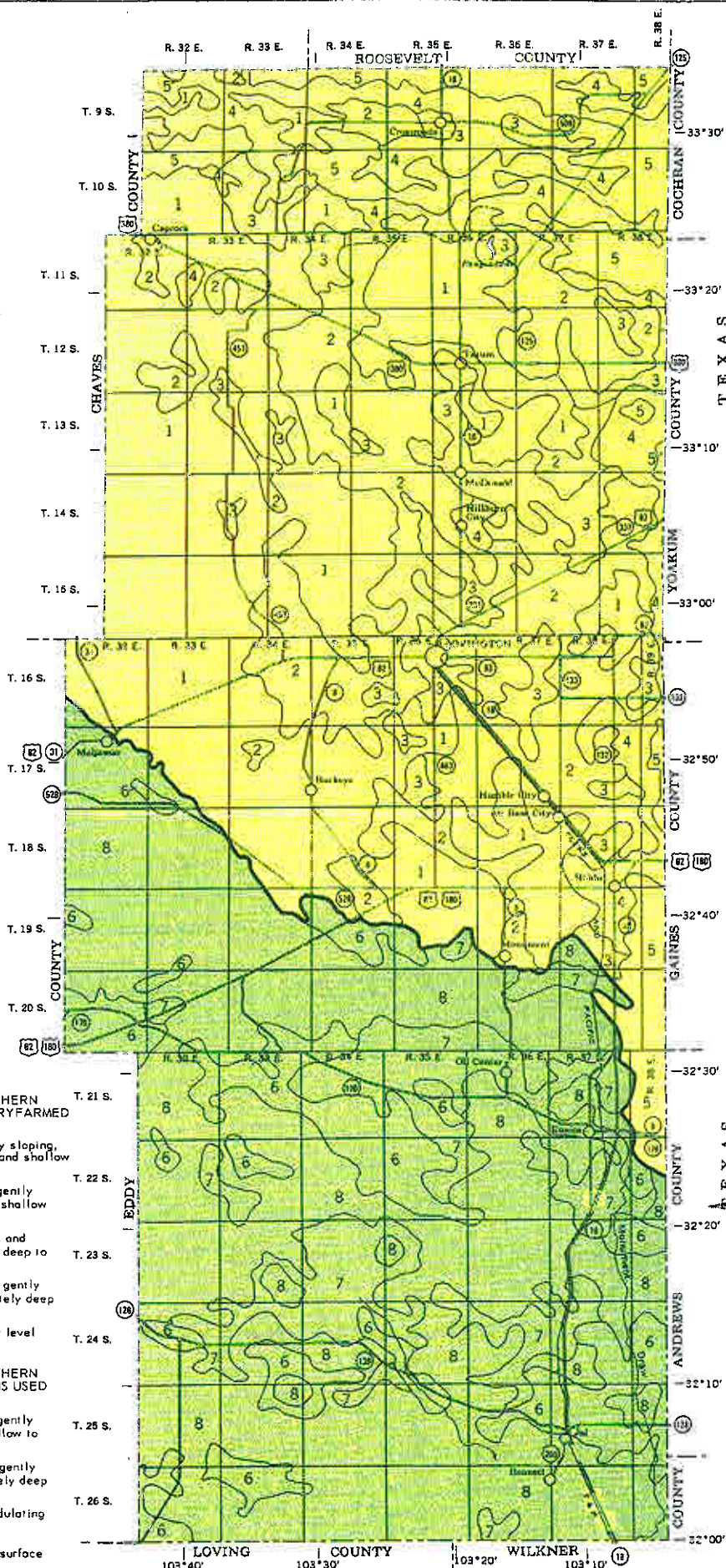layer.

Compiled 1972

FIGURE 3

This map is for general planning. It shows
only the major soils and does not contain
sufficient detail for operational planning.

FIGURE 4.
Lea County Water Plan
Underground Water
Basins in the Region

Explanation

- • WIPP Site
- /\\/ State Line
- /\\/ County Line
- /\\/ Perennial Stream
- /\\/ Intermittent Stream
- /\\/ U.S. Highways
- /\\/ State Highways
- /\\/ Township/Range
- /\\/ Planning Region
- ▢ Lea County GW basin
- ▢ Capitan GW basin
- ▢ Carlsbad GW basin
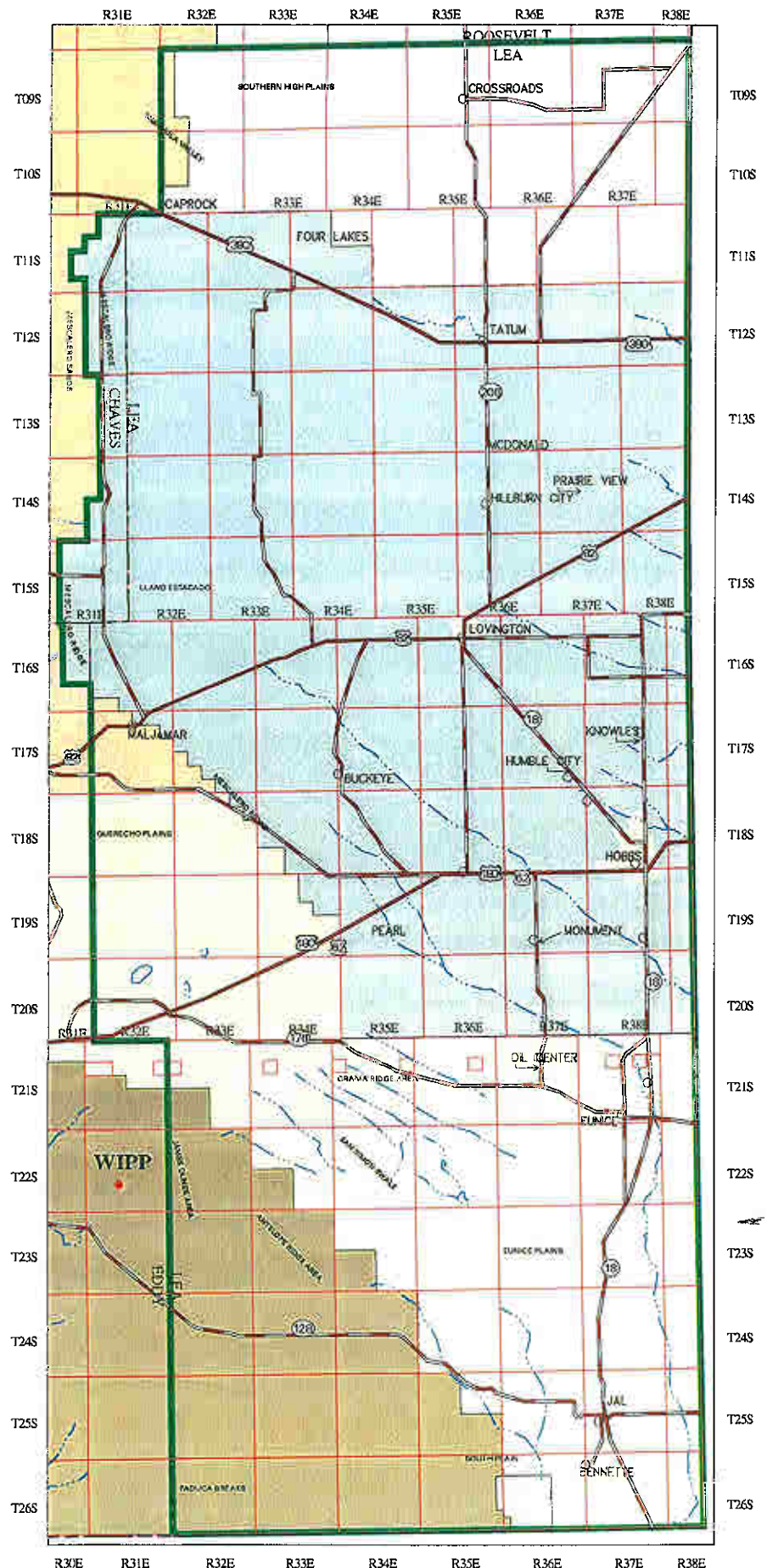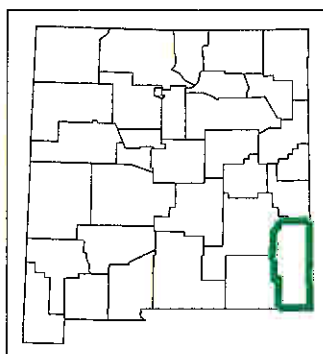- ▢ Jal GW Basin
- ▢ Roswell GW basin
- ▢ Non–declared GW Basin

SCALE 1: 750 000

10   0   10   20   30   40   50 MILES

10   0   10   20   30   40   50 KILOMETERS