FIGURE 1
YIELD COMPONENTS OF PROPERLY-CONSTRUCTED DOMESTIC WELL

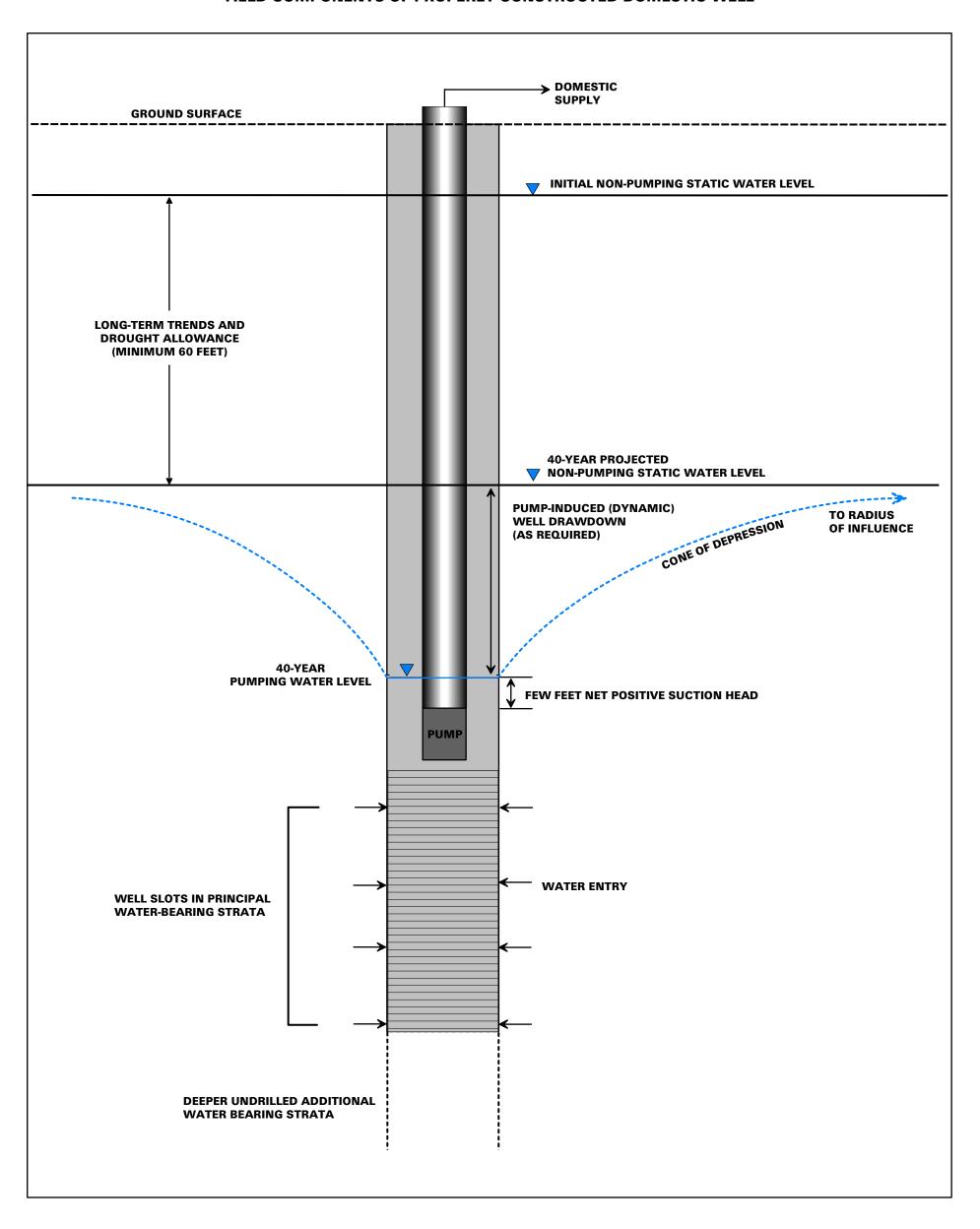
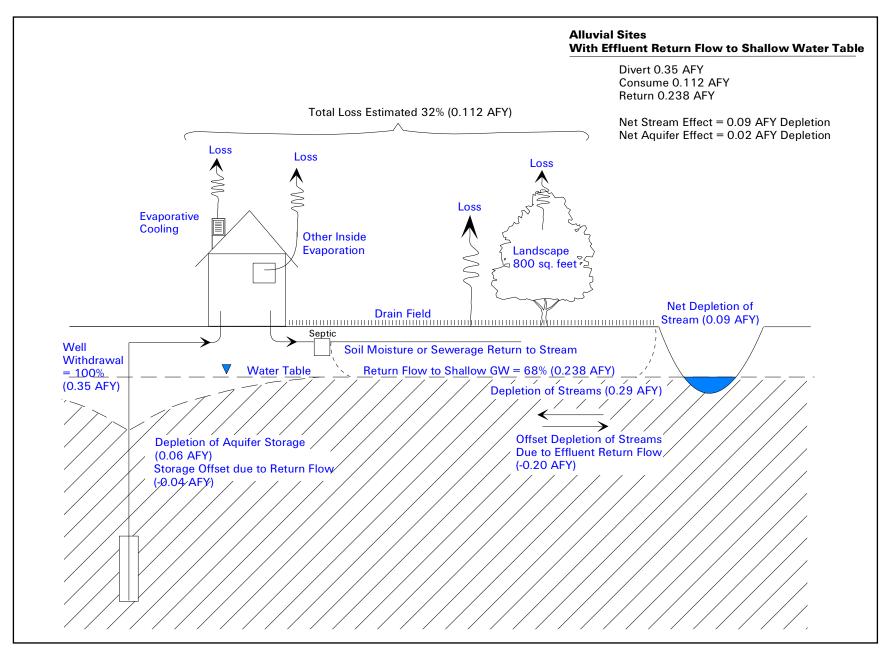


FIGURE 2
HOUSEHOLD WATER BALANCE AT SHALLOW AND DEEP WATER TABLE NEAR A STREAM



**COMPONENTS OF DOMESTIC WATER ROUTING AT ALLUVIAL SITE (YEAR 2040)** 

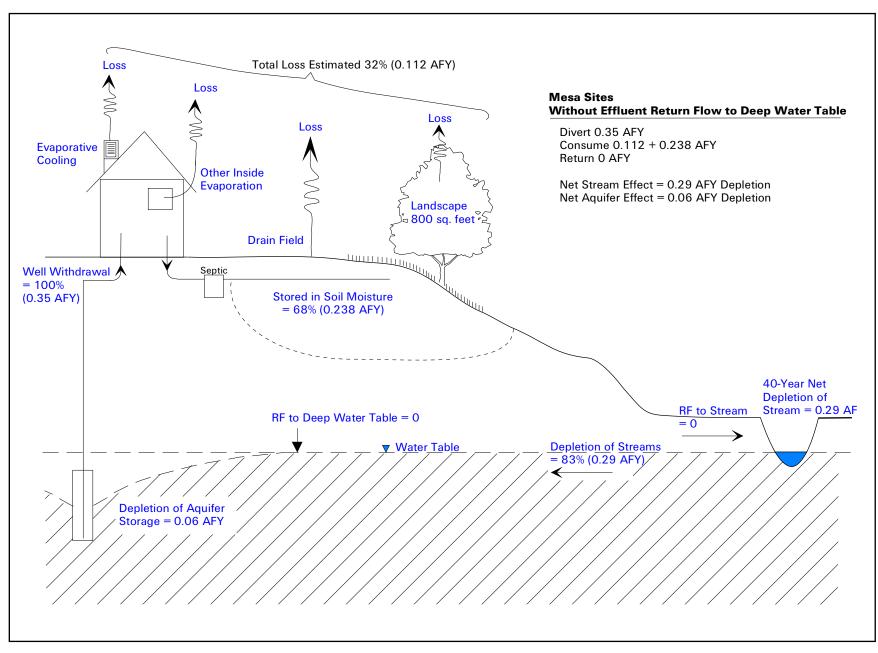
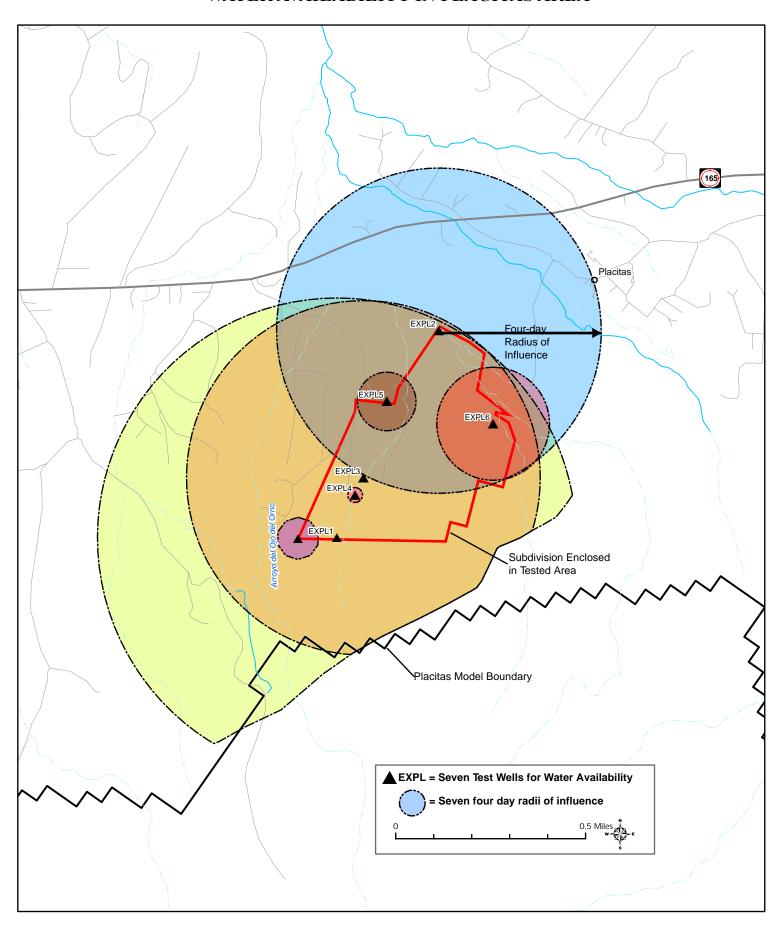
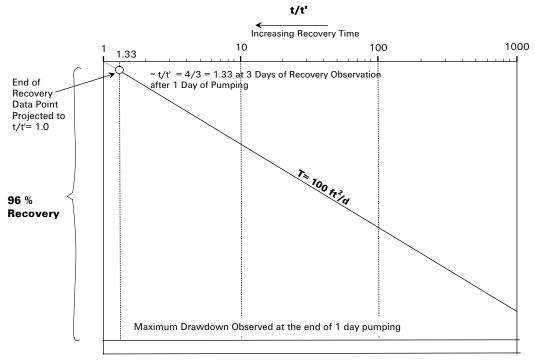


FIGURE 3
RADII OF INFLUENCE OF TEST WELLS FOR
WATER AVAILABILITY IN PLACITAS AREA



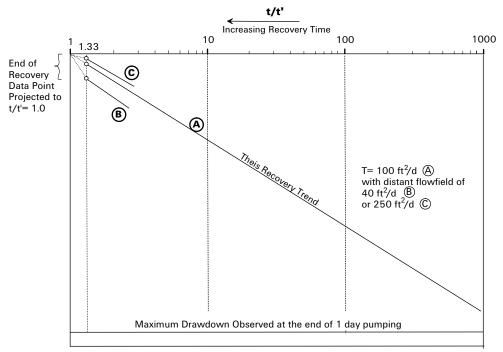
# FIGURE 4 RECOVERY TREND IN GROUNDWATER SYSTEM WITHOUT BOUNDARIES IN THE AREA OF INFLUENCE



t = Time since pumping started (1 day + 3 days = 4 days)

t' = Time since pumping stopped (3 days)

# FIGURE 5 RECOVERY TRENDS IN GROUNDWATER SYSTEM WITH BOUNDARIES IN AREA OF INFLUENCE

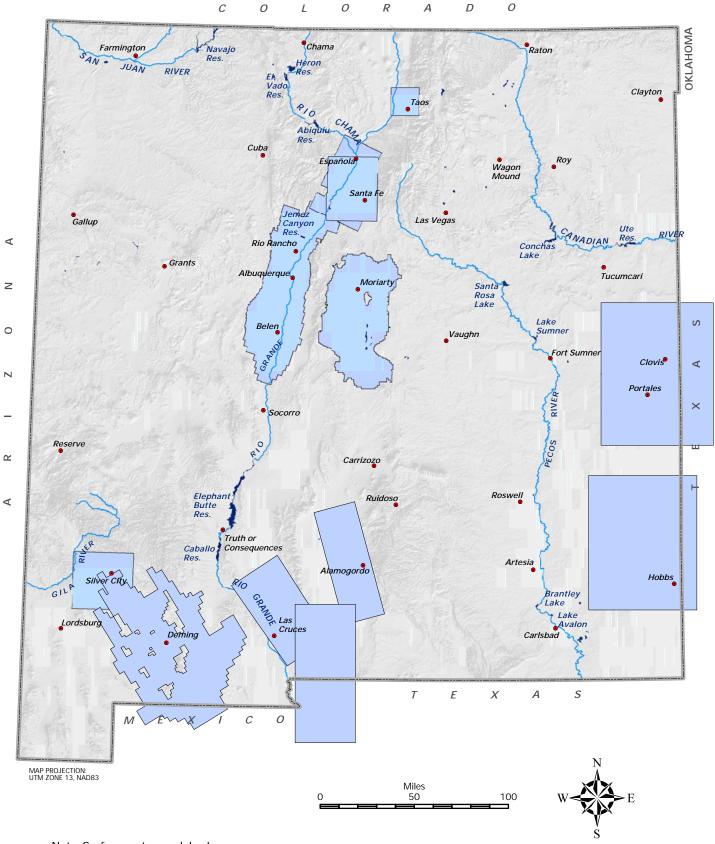


Trend A is the Theis recovery trend indicating standard projection to t/t' = 0

Trend B has the 3-day recovery measurement at a lesser water level indicating steeper slope and smaller transmissivity in projection to t/t'=0

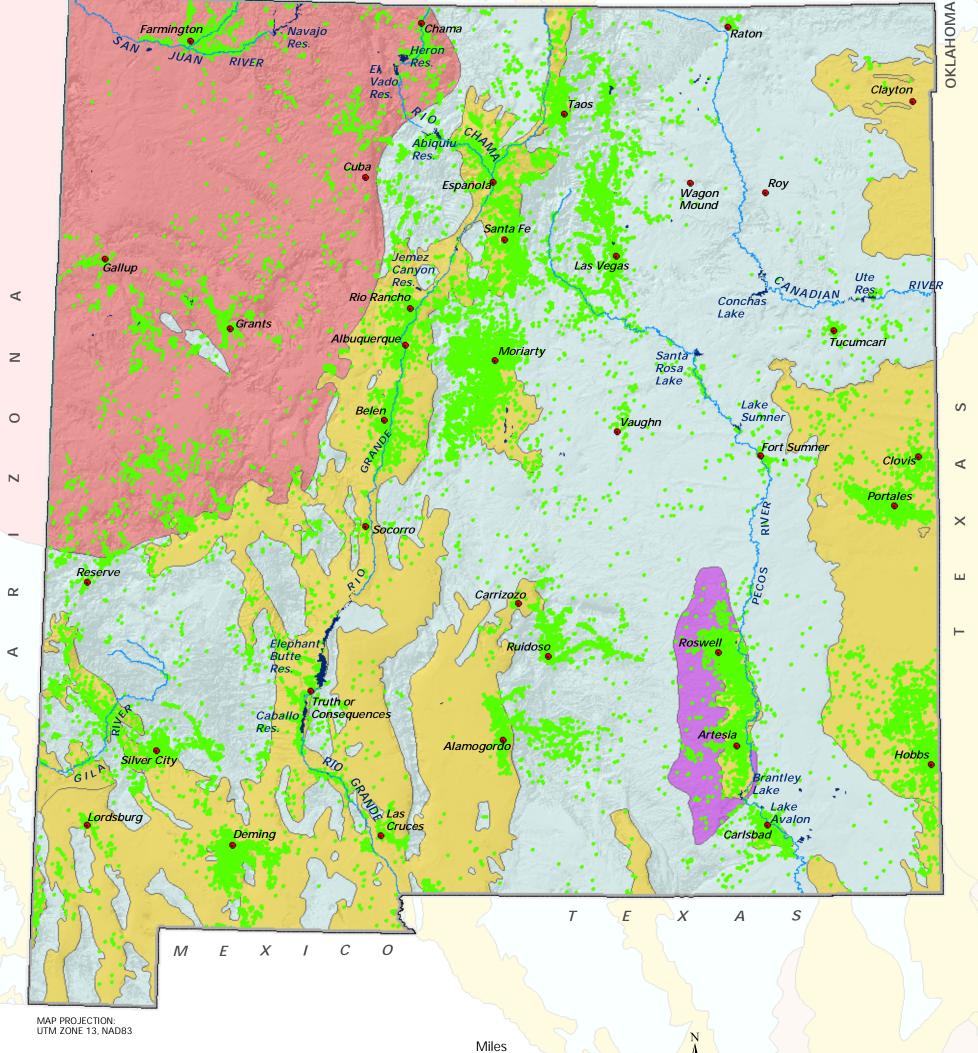
Trend C indicates a flatter slope and larger transmissivity in projection to t/t' = 0

#### FIGURE 6 NEW MEXICO OFFICE OF THE STATE ENGINEER ADMINISTRATIVE MODELS FOR 17 AREAS



Note: Surface water models also are established for the Rio Grande, Pecos and San Juan Rivers.

FIGURE 7 DOMESTIC WELLS AND AQUIFERS IN NEW MEXICO C O L O R A D ORaton Navajo Res. El, TRes. Taos Abiquiu CHAN Española Cuba Roy



100 50 Legend Domestic Wells

### **Aquifer Systems**

Basin Fill and Alluvial Aquifers

Farmington

JUAN

San Juan Basin Aquifers (Minor)

Roswell Basin Artesian Aquifer

Minor Aquifer Systems

FIGURE 8
WATER TABLE ELEVATION AND DEPTH IN NEW MEXICO

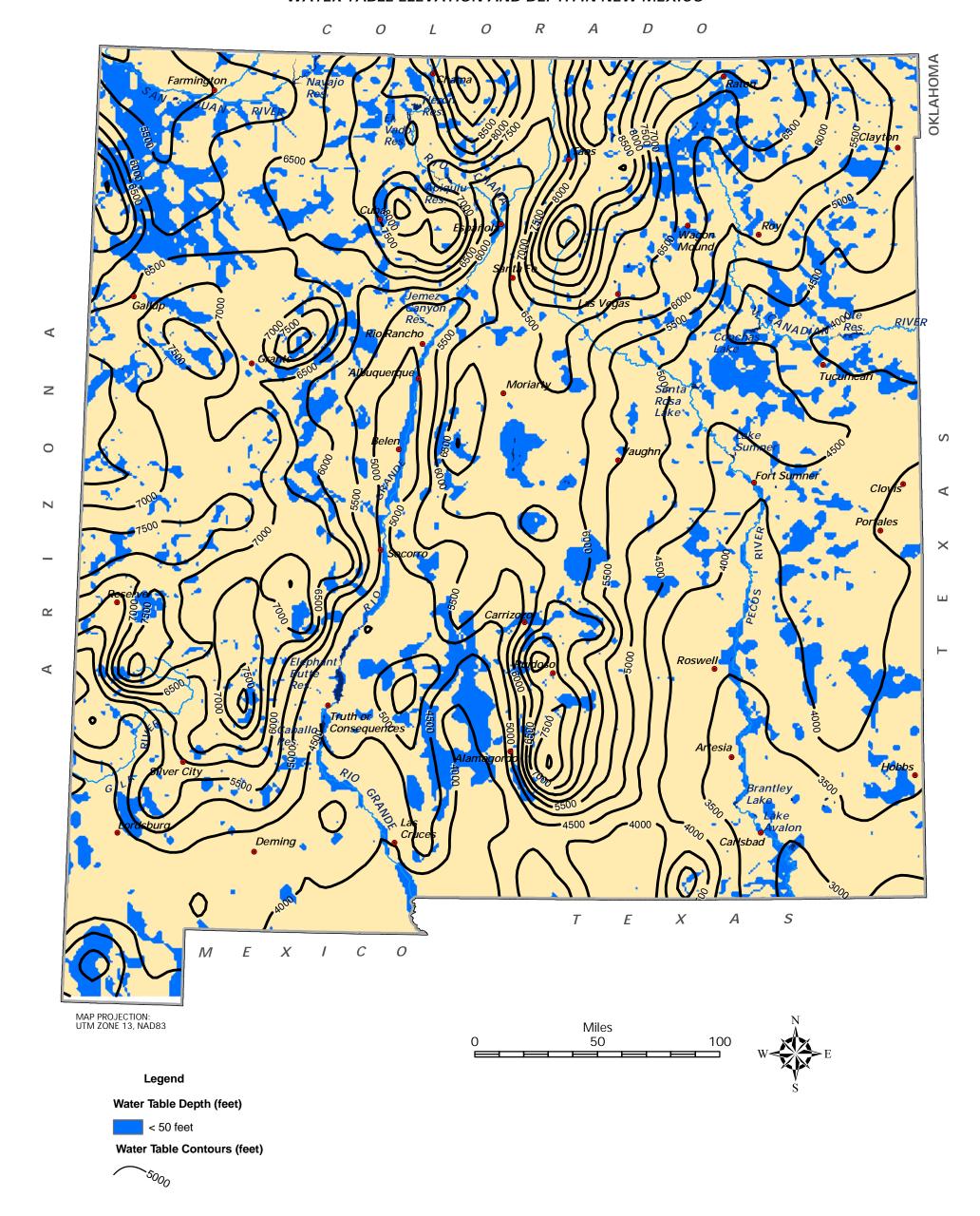


FIGURE 9 GROWTH OF DOMESTIC WELL PERMITS AND POPULATION IN NEW MEXICO

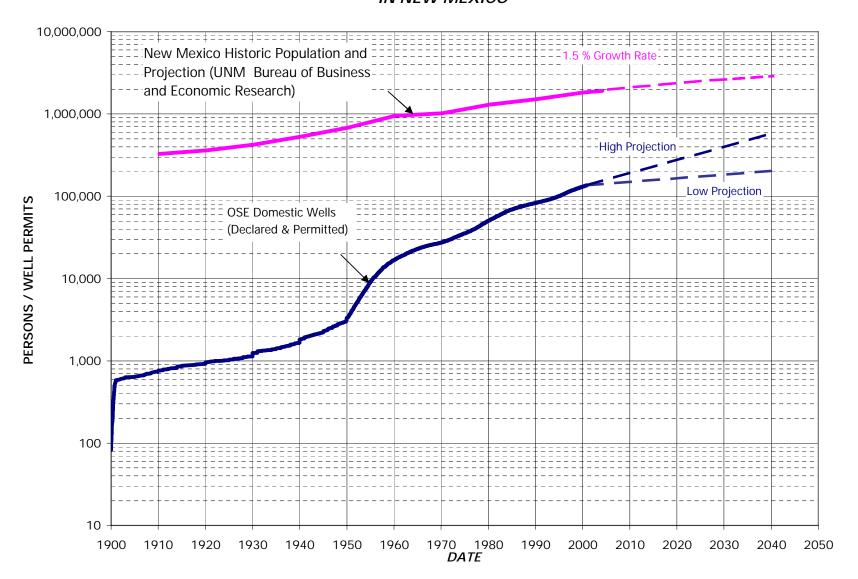


FIGURE 10
DISTRIBUTION OF PROPERLY CONSTRUCTED WELLS IN NEW MEXICO

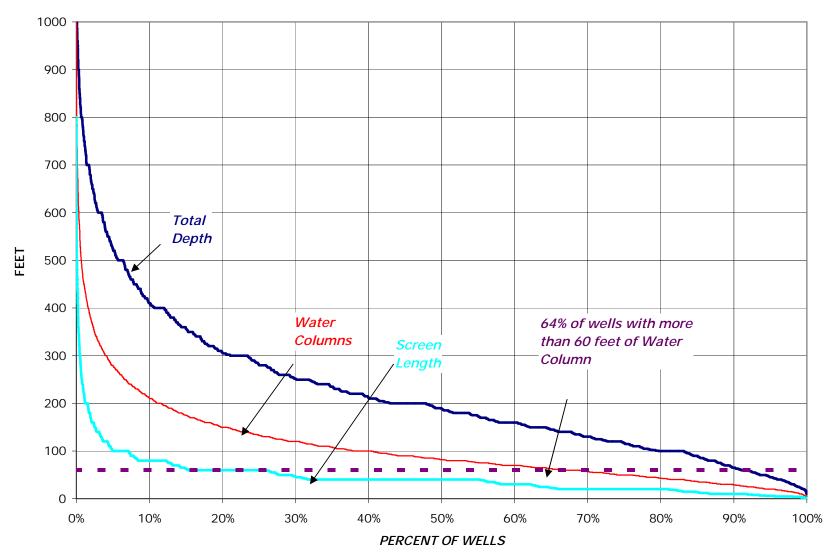


FIGURE 11
MAXIMUM POSSIBLE DRAWDOWN FROM PUMPING

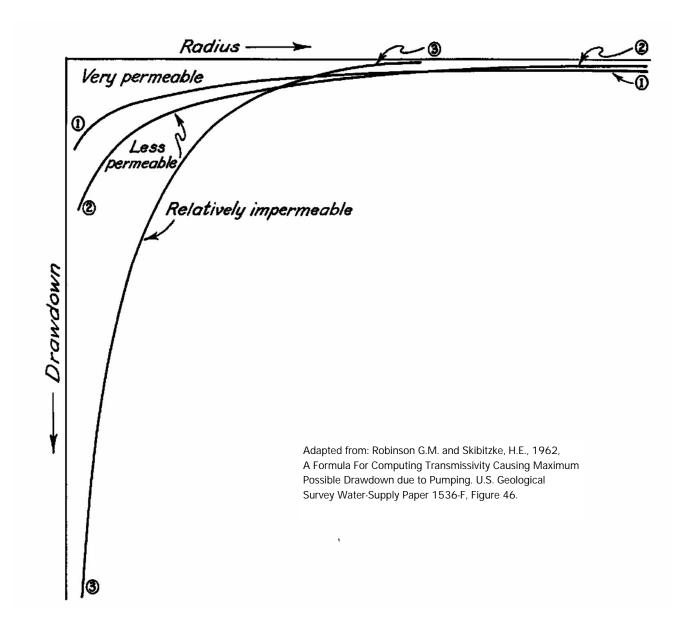


FIGURE 12
HYDROLOGIC LIMIT ON MAXIMUM INTERFERENCE BETWEEN DOMESTIC WELLS

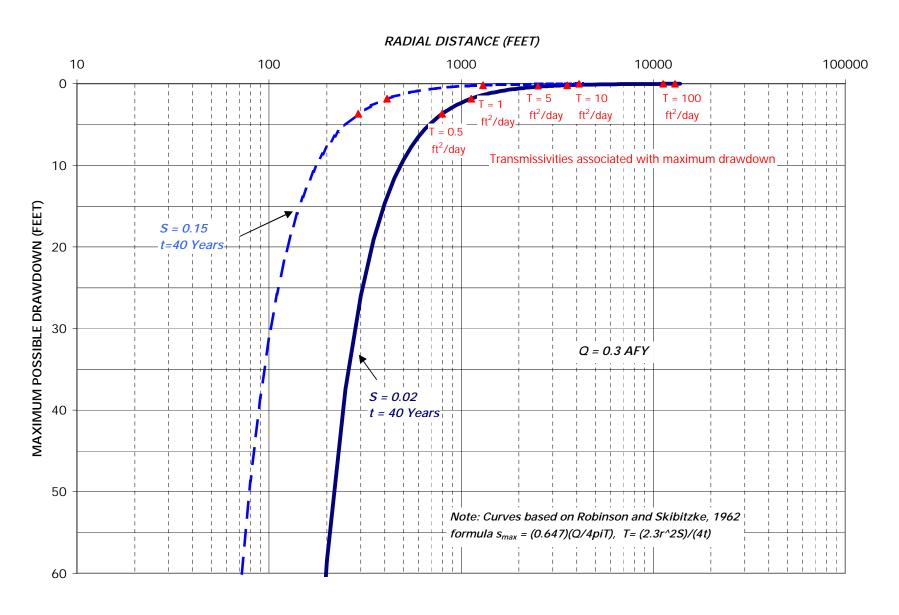


FIGURE 13 40-YEAR WATER TABLE DRAWDOWN IMPACT OF DOMESTIC WELLS IN THREE MODELED BASINS

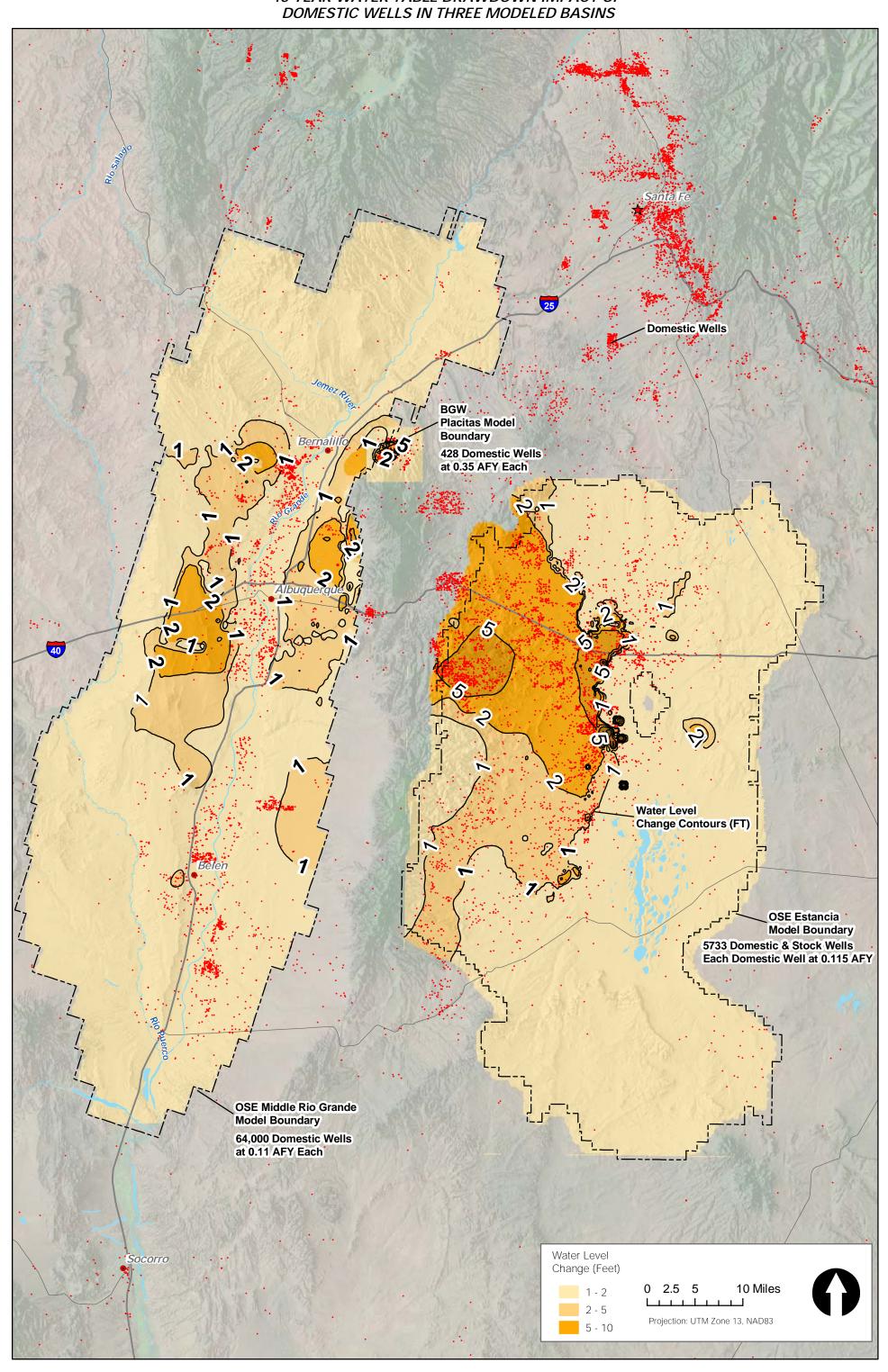
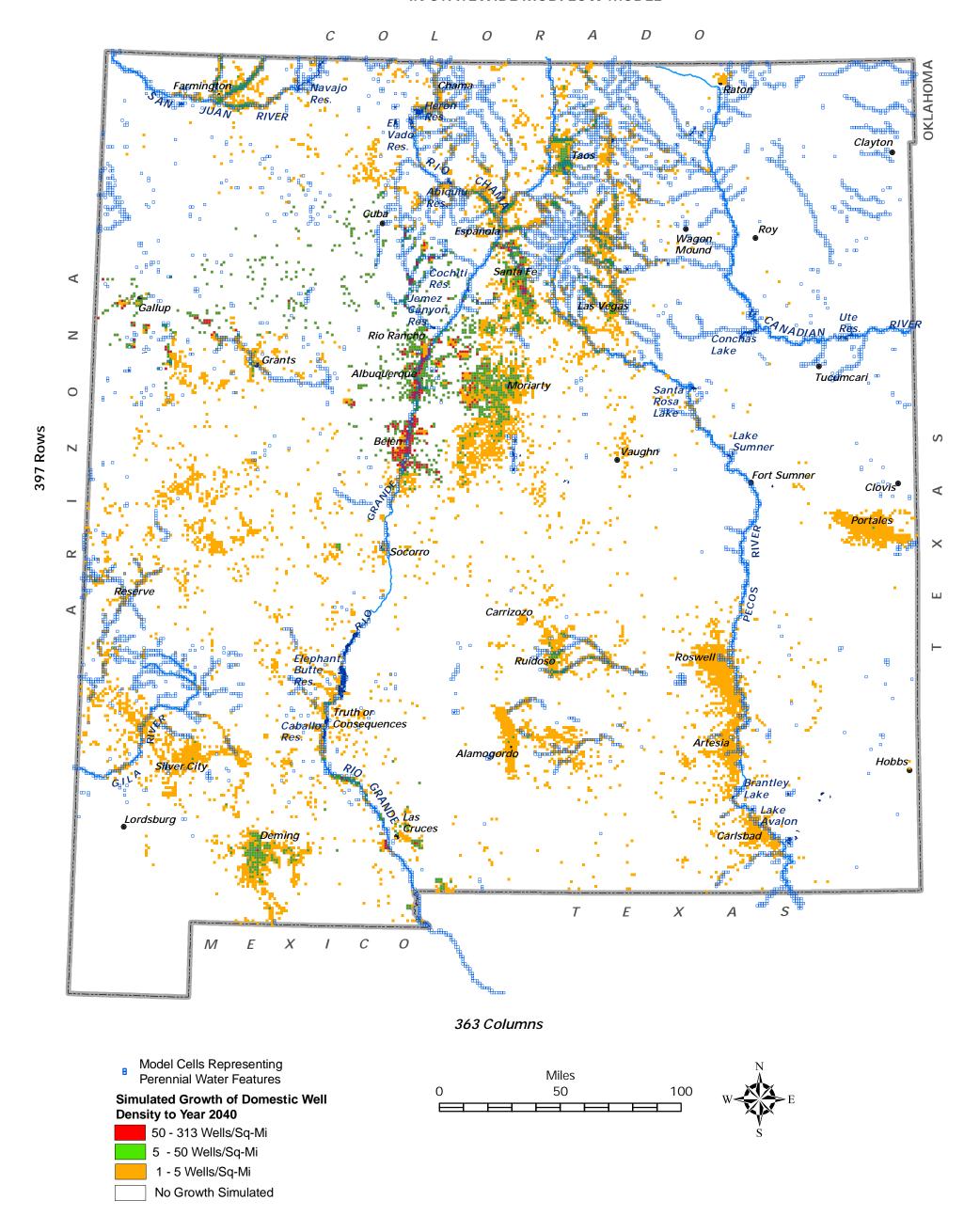


FIGURE 14 LAYOUT OF PERENNIAL STREAMS AND GROWTH OF DOMESTIC WELL DENSITY TO YEAR 2040 IN STATEWIDE MODFLOW MODEL



### FIGURE 15 40-YEAR FUTURE DRAWDOWN IMPACT OF CURTAILING GROWTH OF WELLS IN NEW MEXICO

