Liquid Waste (Septic Tank) Program
Hydrogeologic Mapping

Pursuant to Liquid Waste Disposal Regulation 20.7.3.201.M, NMED may impose more stringent requirements to prevent a hazard to public health or degradation of a body of water. Site conditions that may necessitate the imposition of more stringent requirements include:

- depth to ground water less than 100 feet with no intervening geologic barrier to prevent contaminant migration;
- proximity to (1/4 mile) anthropogenic ground water contamination with nitrate or anoxic conditions;
- karst or fractured bedrock terrain; and
- gaining streams that have been impacted by nutrients from liquid waste systems.

NMED is mapping areas where waters of the state may be vulnerable to contamination from septic tank discharges, and where stricter standards may be imposed. Aquifer sensitivity maps prepared for NMED by Lee Wilson and Associates in 1989 have been digitized and are a data layer in the online Liquid Waste Geographic Information System (GIS). The tab for GIS data layers is near the upper right corner, the buttons for zoom in/out and other functions are on the left, aquifer sensitivity maps are under Geology/Landcover. The Lee Wilson maps are being updated and modified to include current depth-to-ground-water information, as well as areas of karst and fractured bedrock, known contamination sites, and gaining streams. These maps also can be downloaded as bitmap and gif files (Table 1). The maps contain color-coded groundwater areas based on depth to water and naturally occurring, background, total dissolved solids (TDS) as explained in Table 2. Areas with ground water less than 100 feet deep, and with 2000 mg/L or less TDS, are mapped in red. Other areas of concern based on karst or fractured bedrock, known ground-water contamination, and gaining streams impacted by septic tank effluent, are also being mapped.

Liquid waste permit applications for conventional septic systems on lots smaller than 3/4 acre within these areas will receive greater scrutiny in order to protect public health and prevent degradation of a body of water. Pursuant to Liquid Waste Disposal Regulation 20.7.3.201.N, NMED will, upon written request, issue a letter of determination of whether or not stricter standards will be imposed on a lot or parcel of land. This determination will be valid for one year. There may be site conditions, however, other than those in the regulation that may cause more stringent requirements to be applied to the liquid-waste permit for a specific site.

The National Atlas GIS has useful information including karst areas.

The Bernalillo County GIS has wells and septic tanks plotted along with lots of other useful information.

Table 1. Lee Wilson and Associates Aquifer Sensitivity Maps. In addition to the online Liquid Waste Geographic Information System (GIS), these maps can be downloaded as image files from the table below. If you have trouble locating your property on these maps, contact us.

County City	bitmap with roads	gif with roads	bitmap with topography	gif with topography
Bernalillo Albuquerque	536 KB	24 KB	1360 KB	164 KB
Catron	500 KB	34 KB		
Chaves Roswell	435 KB	35 KB	1360 KB	106 KB
Cibola	417 KB	31 KB		
Colfax	536 KB	40 KB		
Curry	536 KB	24 KB		
De Baca	536 KB	32 KB		
Dona Ana Las Cruces	536 KB	28 KB	1450 KB	137 KB
Eddy	560 KB	44 KB		
Grant Silver City	395 KB	24 KB	1360 KB	129 KB
Guadalupe	536 KB	39 KB		
Harding	481 KB	29 KB		
Hidalgo	346 KB	20 KB		
Lea	337 KB	28 KB		
Lincoln	459 KB	35 KB		
Los Alamos	524 KB	18 KB		
Luna	568 KB	36 KB		

McKinley Gallup	513 KB	48 KB	1360 KB	131 KB
Mora	394 KB	22 KB		
Otero	428 KB	35 KB		
Quay	378 KB	27 KB		
Rio Arriba	459 KB	42 KB		
Roosevelt	332 KB	17 KB		
Sandoval Rio Rancho	536 KB	44 KB	1360 KB	126 KB
San Juan	587 KB	58 KB		
San Miguel	339 KB	29 KB		
Santa Fe Santa Fe	377 KB	26 KB	1360 KB	129 KB
Sierra	456 KB	29 KB		
Socorro	510 KB	46 KB		
Taos	397 KB	29 KB		
Torrance	613 KB	39 KB		
Union	313 KB	32 KB		
Valencia	536 KB	32 KB		

Table 2. Color Coding for Lee Wilson Aquifer Sensitivity Maps.

Depth to Ground Water/TDS (mg/L)	2,000 or less	**2,000 to 10,000**	**greater than 10,000**
less than 100 feet	**highly sensitive**	**moderately sensitive**	**moderately sensitive**
100-300 feet	**moderately sensitive**	**moderately sensitive**	**less sensitive**
greater than 300 feet	**less sensitive**	**less sensitive**	**less sensitive**

Contact the NMED Liquid Waste Program if you have any questions!

Return to Liquid Waste Home Page

This page was last updated