

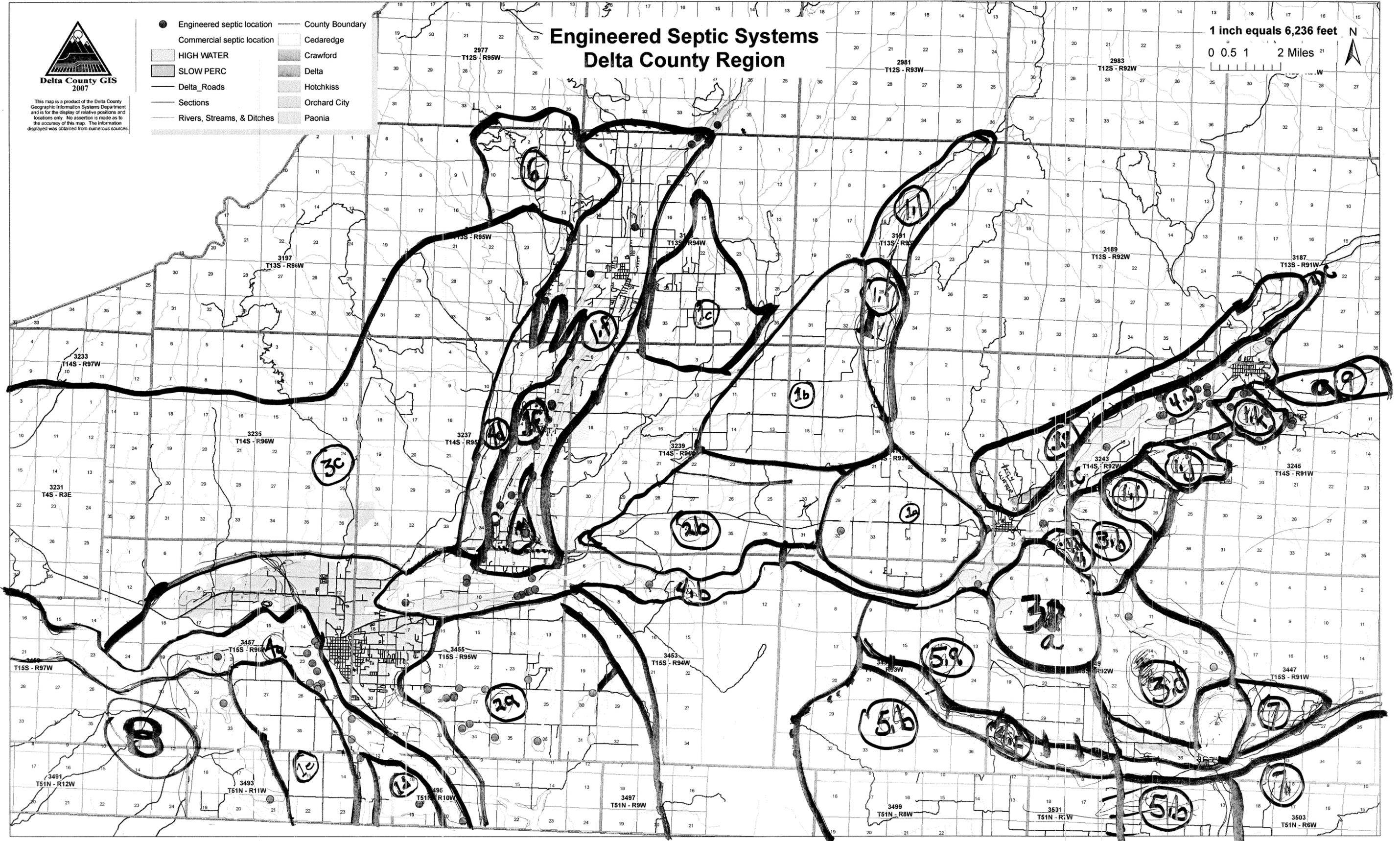


This map is a product of the Delta County Geographic Information Systems Department and is for the display of relative positions and locations only. No assertion is made as to the accuracy of this map. The information displayed was obtained from numerous sources.

- Engineered septic location
- Commercial septic location
- HIGH WATER
- SLOW PERC
- Delta\_Roads
- Sections
- Rivers, Streams, & Ditches
- County Boundary
- Cedaredge
- Crawford
- Delta
- Hotchkiss
- Orchard City
- Paonia

# Engineered Septic Systems Delta County Region

1 inch equals 6,236 feet  
0 0.5 1 2 Miles





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## **Water Planning Areas**

### **Problem Statement**

Delta County continues to experience rapid growth pressures from subdivision developers. Most of these developments are located where public sewage collection and disposal systems are not available. Many of the developments are eliminating agricultural lands that have been irrigated and used for agricultural production for many years and converting them to residential housing tracts. This type of development drastically changes the water budget of a particular area and introduces different potential pollution sources. Neighboring property owners of these developments are concerned that on-site sewage disposal systems will pollute groundwater and surface water within the immediate vicinity of the development. When irrigated lands are converted to residential subdivisions the water budget for the area changes and residents are also concerned that these changes may decrease the quantity of groundwater, irrigation water and wells along with springs drying up. An assessment tool is needed to guide planning efforts in order to decrease the potential for negative impacts on water quality and quantity from individual subdivisions and the cumulative impacts of many subdivisions in future years.

### **Problem Solution**

Delta County is seeking help to implement a computer modeling system such as WARMF or BASINS or DRASTIC or others. The computer model will be a tool that will help assess the cumulative effects of subdivision development on water quality and quantity. The output of the model will be used in planning that will direct housing density and groundwater and surface water protection practices.

### **Strategy**

The County is diverse in its topography and geology. The various types of terrain and geography make the task of gathering useful data and applying it to the entire County a difficult and expensive task. A strategy to gather useful data to populate a computer modeling software program might divide the entire County into water planning areas for detailed study and analysis. The water quality work group developed a map that divides the developable areas of Delta County into water planning areas of similar geology and water use. A detailed study and analysis of a single water planning area could be undertaken. Then the data collected would be incorporated into a computer modeling program that would help predict the cumulative effects of development on water quality and quantity in that area. The information gathered would be applied to the other areas identified as similar in use and geology. The end use of the information would be used as a planning tool to mitigate the impacts of subdivision development. Some of the interventions could include the limitation of housing density, advanced on-site sewage treatment systems, irrigation practices or others as indicated by the data.

**Delta County Water Planning Areas** (Please refer to the attached map)

**1. Terrace-** Irrigated alluvial terrace underlain by Mancos Shale with shallow to moderately deep ground water used as drinking water and irrigation water. These terraces are delimited by springs that erupt from the terrace slopes and drain into surface waters.

- 1.a - Rogers Mesa
- 1.b - Redlands Mesa
- 1.c - Cedar Mesa
- 1.d - Ash Mesa
- 1.e - California Mesa
- 1.f - Surface Creek Mesa
- 1.g - Hotchkiss, Midway, Paonia Terraces (Bone Mesa, Powell Mesa, Sunshine Mesa, etc. )
- 1.h - Shamrock Mesa
- 1.j - Stewart Mesa
- 1.k - Lamborn Mesa
- 1.l - Leroux Creek

**2. Adobe Hills Irrigated** - Irrigated weathered Mancos Shale soils with minimal groundwater use. Groundwater found in these areas are extremely high in total dissolved solids and not useful for potable purposes. Irrigation water, storm water runoff and deeply perked groundwater that migrate to surface water drainages are high in selenium leached from these areas. The soils in the areas are subject to soil piping and deeply cut arroyos.

- 2.a Peach Valley
- 2.b Pane Siding

**3. Adobe Hills Unirrigated** - Unirrigated weathered Mancos Shale derived soils with minimal groundwater usage. Groundwaters found in these areas are extremely high in total dissolved solids and not useful for potable purposes. Stormwater runoff and deeply perked groundwater that migrate to surface water drainages are extremely high in selenium leached from these areas. The soils in the areas are subject to soil piping and deeply cut arroyos.

- 3.a Hotchkiss Dobies
- 3.b North Fork Transfer Station area
- 3.c Delta Dobies
- 3.d Cottonwood Creek area

**4. River Alluvium** - Gravelly sandy alluvial soil with shallow groundwater. The shallow groundwater is used for domestic drinking water and irrigation.

- 4.a Uncompahgre River and Gunnison River corridor below the confluence
- 4.b Gunnison River corridor East of Delta to the North Fork River confluence
- 4.c Northfork River corridor
- 4.d Tongue Creek corridor
- 4.e Smith Fork River corridor

**5. Crawford Country Mesas** – Shallow irrigated soils derived from Dakota Sandstone and Mancos Shale with limited groundwater use.

- 5.a Grandview Mesa
- 5.b Fruitland Mesa

**6. Colby Canyon** - Irrigated soils derived from Mancos Shale, Mesa Verde Formation and igneous ejecta. Groundwaters are used for potable purposes and irrigation. Groundwater

may be shallow or deep depending on the topography.

- 7. Missouri Flats**- Irrigated soils derived from Mancos Shale and igneous sediments. Groundwater used moderately along the Smith Fork River and Springs found along Saddle Mountain, Needle Rock, and Smith Mountain. Wells completed in the Dakota Sandstone produce water of very poor quality.
- 8. Rubidoux Creek**- Irrigated soils derived from Mancos Shale and Dakota Sandstone with shallow groundwater in heavily irrigated drainages. Some areas have extremely slow soil permeability. Groundwater use is limited.
- 9. Minnesota Creek**- Irrigated soils derived from Mancos Shale with slow soil permeability. Groundwater use is negligible.