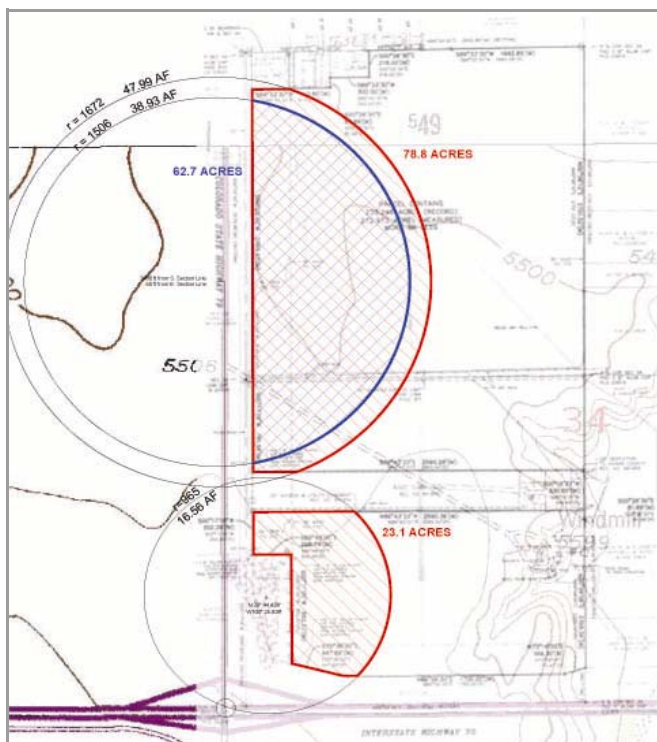


# GROUND WATER

## Ground Water Resource Evaluation

### Village Homes - Bennett Farms Parcel



*Pre-SB213 Overlap on Village Homes Property*

When Village Homes, LLC, was looking to develop a new subdivision near the Town of Bennett east of Denver, water supply was a major concern. The Town had a requirement for bringing a large amount of water to the Town if annexation were to occur as the developers had planned, yet no surface water supplies exist in the area.

Using SB213 maps of Denver Basin wells and their corresponding circles of appropriation, Martin and Wood researched current water rights that previously had been appropriated beneath the property. Calculation of the remaining available water beneath the property within the designated groundwater basin was compared to the needs of the community in trying to establish water supply.

### Denver Wells, LLC - Walestone Wells

Four very old, high-capacity, Denver-area wells, often referred to as the “Walestone Wells,” have changed hands a number of times over the past 30 years as each owner tried working out the logistics of re-establishing production from the wells.

Martin and Wood researched the historical construction and historical use of these wells at local libraries, the State Historical Society, the State Engineer’s Office, ar-

chives of previous owners of the wells, and the records of drillers and contractors who had historically done work on the wells. After determining the current conditions of each of these pre-SB213 wells to be inoperable, Martin and Wood succeeded in acquiring well permits for re-drilling of the old, crudely constructed structures. Design of these new wells is now complete and construction began in the summer of 2004.

**Martin and Wood Water Consultants, Inc.**

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# GROUND WATER

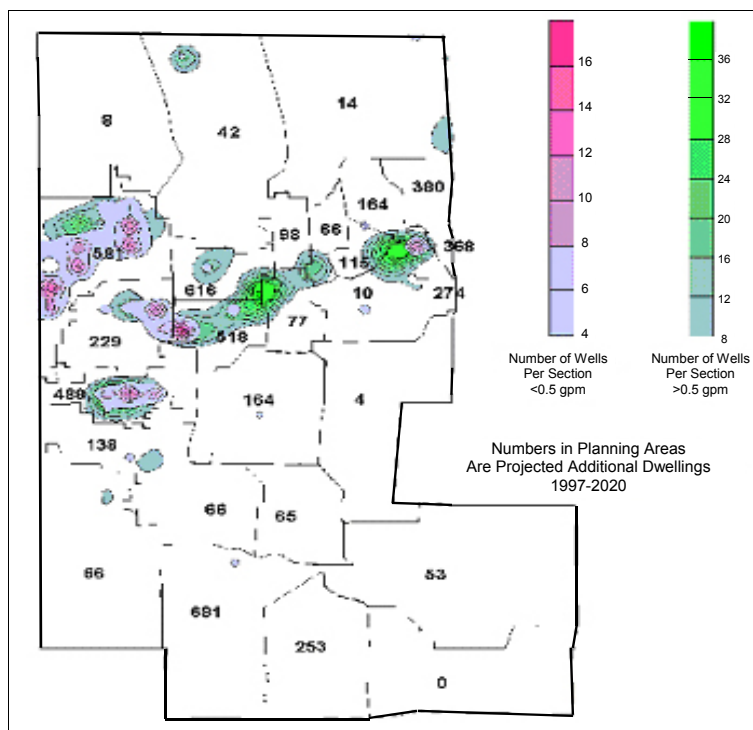
## Ground Water Resource Evaluation

### Teller County - Water Supply Study

Teller County officials had recognized that they were lacking comprehensive data as to the nature of the ground water supplies upon which much of the County relied.

Martin and Wood conducted a three-phase assessment involving water quantity, water quality, and vulnerability to aquifer contamination. The initial study analyzed well records to develop an historical overview of well concentrations, ages, and depths, correlated with rock types based on geologic mapping. Martin and Wood then applied these data to the County planning projections for population growth estimates to determine likely levels of pumping that could be sustained. During this process, Martin and Wood also examined the issue of ground water contamination in light of the many extremely small platted lots that exist in the County, potentially legally eligible for well and septic construction. Martin and Wood constructed a mass balance model to develop a better understanding of the relationship to lot sizing and potential ground water contamination.

The final phase of the project involved the development of a County-wide map indicating areas of higher or lower vulnerability to contamination from roadway spills and accidental dumping. The map incorporated numerous variables applied under a ranking system to generate a zoned map. County environmental officers will utilize this map in formulating time-appropriate responses to any spills.



*Teller County Well Densities*