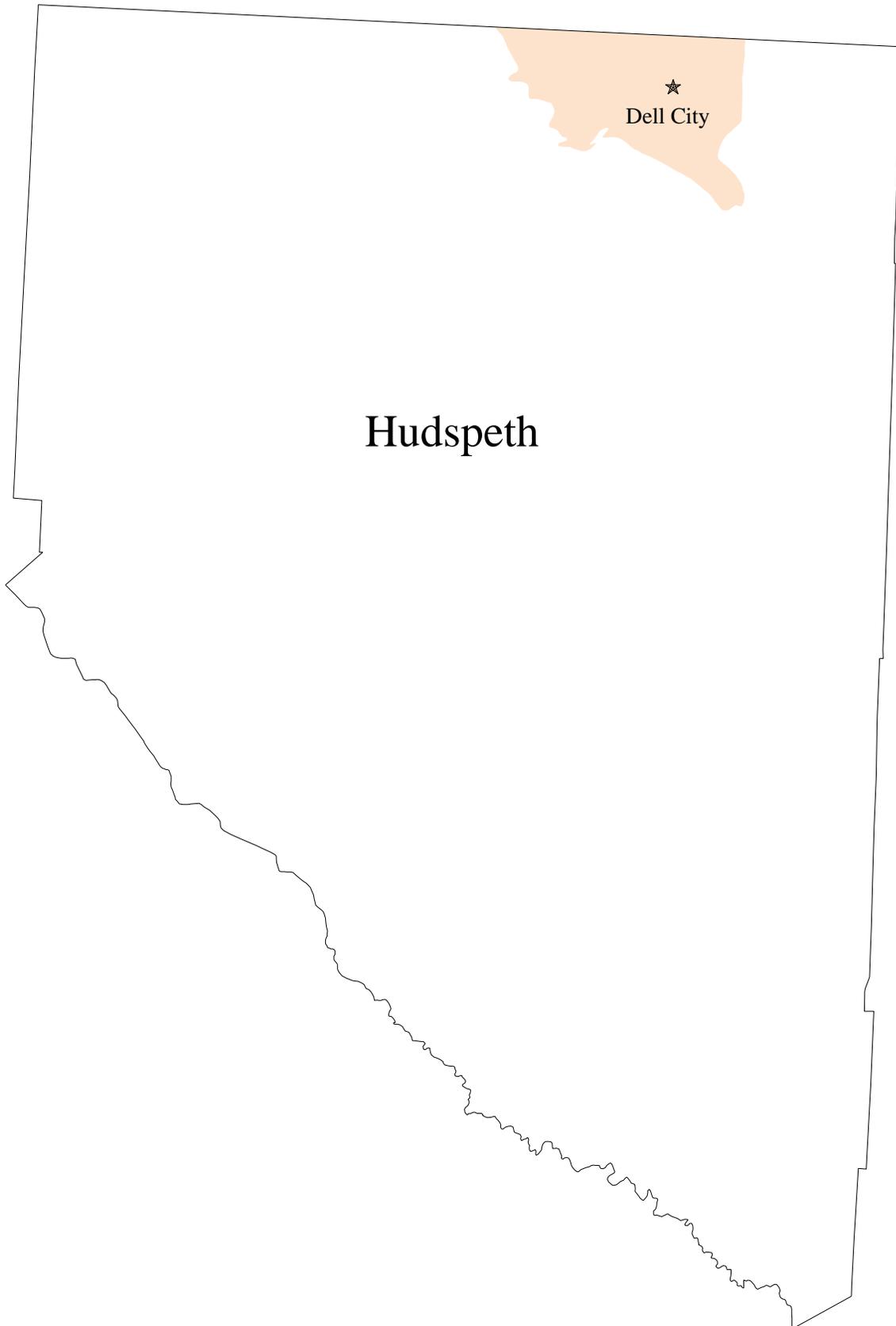


Bone Spring - Victorio Peak



Bone Spring-Victorio Peak Aquifer

The Bone Spring-Victorio Peak aquifer occupies the eastern edge of the Diablo Plateau west of the Guadalupe Mountains in northeast Hudspeth County and extends northward into the Crow Flats area of New Mexico. The Bone Spring and Victorio Peak formations are composed of as much as 2,000 feet of early Permian age limestone beds and contain ground water in joints, fractures, and solution cavities. Permeability of the limestones is highly variable, and well yields differ widely from about 150 gal/min to more than 2,000 gal/min.

The aquifer is used almost exclusively for irrigation. Dell City is the only community that withdraws water from the aquifer for public supply. Water levels have declined in the aquifer since pre-irrigation times; however, the levels have remained relatively constant since the late 1970s.

Ground water withdrawn from the aquifer commonly contains between 2,000 mg/l and 6,000 mg/l dissolved solids, but is acceptable for irrigation because the high permeability of the soil alleviates soil salinity. Because the water does not meet drinking water standards, the community of Dell City must use a demineralization process. The quality of the ground water has deteriorated somewhat as salts, leached from surface soils by irrigation return flow, percolate downward to the aquifer.

References

- Ashworth, J.B., 1994, Ground-water resources of the Bone Spring-Victorio Peak aquifer in the Dell Valley area, Texas: TWDB Rept. 344, 42 p.
- Bjorklund, L.J., 1957, Reconnaissance of ground-water conditions in the Crow Flats area Otero County, New Mexico: State of New Mexico, State Engineer Office Technical Rept. No. 8, 26 p.