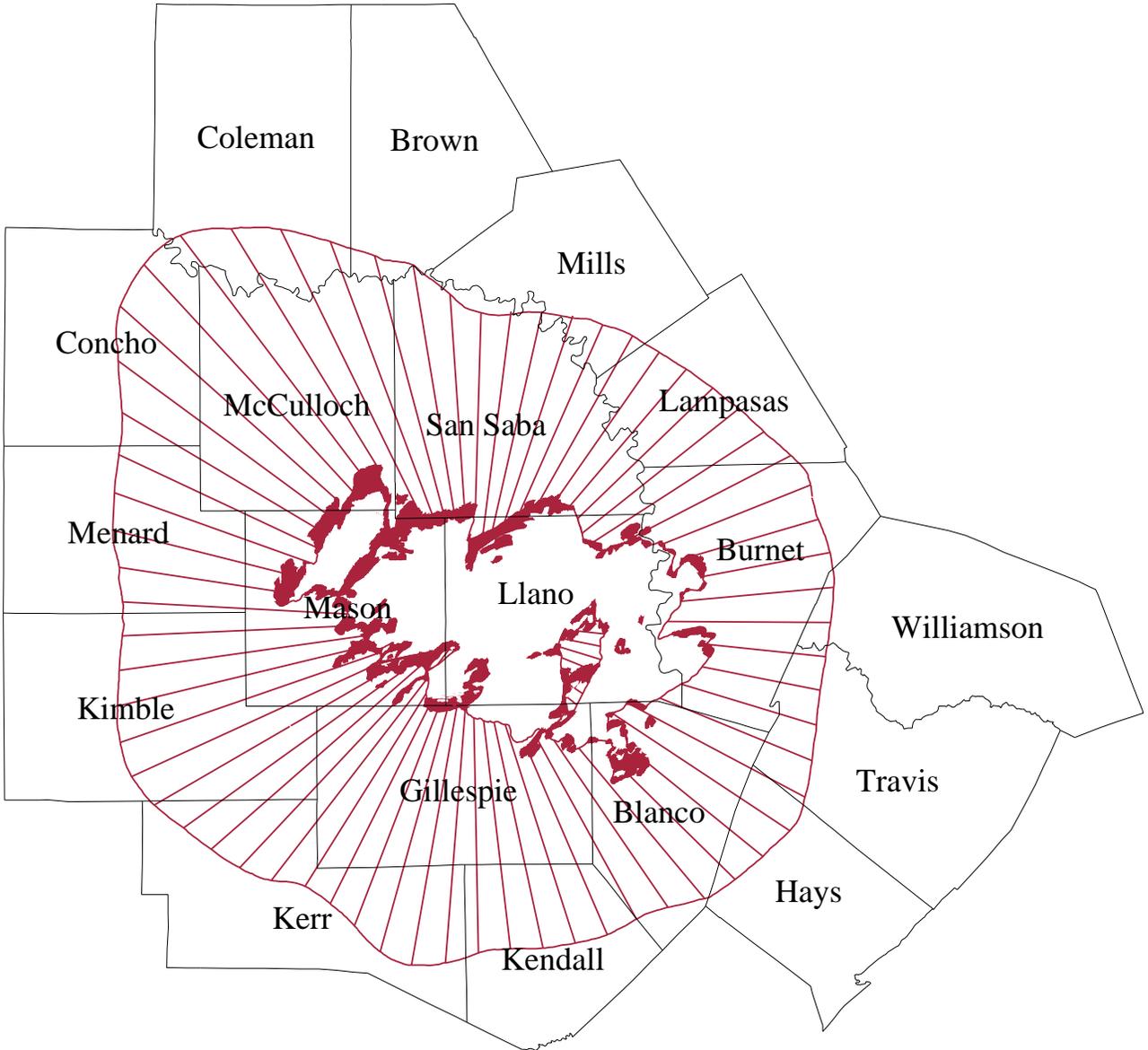


Hickory



Key

Outcrop 

DOWNDIP 

Hickory Aquifer

The Hickory aquifer occurs in parts of 19 counties in the Llano Uplift region of Central Texas. Discontinuous outcrops of the Hickory Sandstone overlie and flank exposed Precambrian rocks that form the central core of the uplift. The downdip artesian portion of the aquifer encircles the uplift and extends to maximum depths approaching 4,500 feet. Most of the water pumped from the aquifer is used for irrigation. The largest capacity wells, however, have been completed for municipal water-supply purposes at Brady, Mason, and Fredericksburg.

The Hickory Sandstone Member of the Cambrian Riley Formation is composed of some of the oldest sedimentary rocks found in Texas. In most of the northern and western portions of the aquifer, the Hickory can be differentiated into lower, middle, and upper units, which reach a maximum thickness of 480 feet in southwestern McCulloch County. In the southern and eastern extents of the aquifer, the Hickory consists of only two units. Block faulting has compartmentalized the Hickory aquifer, thus restricting flow.

Ground water from the aquifer is generally fresh. However, locally, the aquifer produces water with excessive alpha particles and total radium concentrations in excess of drinking water standards. The water can also contain radon gas. The upper unit of the Hickory produces ground water containing concentrations of iron in excess of drinking water standards.

References

- Bluntzer, R.L., 1992, Evaluation of the ground-water resources of the Paleozoic and Cretaceous aquifers in the Hill Country of Central Texas: TWDB Rept. 339, 130 p.
- Mason, C.C., 1961, Ground-water geology of the Hickory Sandstone Member of the Riley Formation, McCulloch County, Texas: TBWE Bull. 6017, 85 p.