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1989-2020

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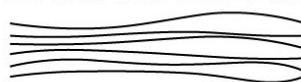


In my opinion, good environmental policy is hard to develop without sound scientific data to support it. Some significant data related to creeks, the Edwards Aquifer and Barton Springs includes surface water flow data (is the creek gaining or losing water/flow) and groundwater tracing. Obtaining and combining these data helped direct COA to where some of the most important lands are providing water to the aquifer and Barton Springs. COA then used this data to target properties to protect and thus help preserve water quality and quantity to the creeks, aquifer and springs.

I led efforts to install sensitive water quality monitoring instruments in Barton Springs to help scientists evaluate the “heartbeat” of the Springs in terms of temperature, pH, dissolved oxygen, specific conductance, turbidity and total dissolved gas. These data provided far greater detail on subtle and large-scale changes related to rain events, spring discharge and creek flow conditions. Evaluation of these parameters led to greater understanding of the springs, aquifer and impacts of the creeks, including Barton Creek. These data combined with groundwater tracing results indicated Barton Creek and its tributaries impacted Barton Springs quickly, in a matter of hours. This and other data led the City of Austin to focus resources to protect large tracts of land in the watershed for the benefit of the creek, Barton Springs and the Barton Creek Greenbelt.

In the 1990s I helped collect and analyze data from a number of springs in the Barton Creek watershed. These data help COA recognize the impacts of point and non-point source pollution on groundwater resources which, of course, then contribute to flows and water quality of the creek. The pollution sources included subdivisions, golf courses and irrigation of treated wastewater effluent. These data and results are available in various publications.

**BARTON CREEK**



**TIME STREAM**