Timothy Hazlett Testimony

Glossary of Terms

Aquifer: A formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer test: A test to determine hydrologic properties of the aquifer involving the withdrawal of measured quantities of water from or addition of water to a well and the measurement of resulting changes in head in the aquifer both during and after the period of discharge or additions.

Calibration: "….finding a set of parameters, boundary conditions, and stresses that produce simulated heads and fluxes that match field-measured values within a pre-established range of error" (Anderson and Woessner, 1992).

Evapotranspiration: The combined loss of water from a given area by evaporation from the land and transpiration from plants.

FAS: Floridan Aquifer System. The Floridan aquifer is the primary water supply aquifer in Florida and one of the most productive aquifers in the world. It is sometimes differentiated into upper, middle, and lower units.

Hydraulic conductivity (K): Hydraulic conductivity, symbolically represented as K, is a property of vascular plants, soil or rock that describes the ease with which water can move through pore spaces or fractures. It depends on the intrinsic permeability of the material and on the degree of saturation. Saturated hydraulic conductivity, K_{sat}, describes water movement through saturated media.

Hydroperiod: The period of time during which a wetland is covered by water.

Karst: An area of irregular limestone in which erosion has produced fissures, sinkholes, underground streams, and caverns.

SAS: Surficial Aquifer System. The SAS covers the surface of much of Florida and consists in Levy County of mostly unconsolidated silica sand with lower permeability clayey sand and silty clays on the Brooksville Ridge and Wacassassa Flats.

Slug test: A slug test is a particular type of aquifer test where water is quickly added or removed from a groundwater well, and the change in hydraulic head is monitored through time, to determine the near-well aquifer characteristics. It is a method used by hydrogeologists and civil engineers to determine the transmissivity/hydraulic conductivity and storativity of the material the well is completed in.

TMR: Telescopic Mesh Refinement. In the Groundwater Vistas modeling software, a capability developed and used to make sub-scale models of an originally larger model domain.

Transmissivity (T): The discharge through a unit width of the entire saturated thickness of an aquifer for a unit hydraulic gradient normal to the unit width sometimes termed the coefficient of transmissibility.

Unsaturated zone: The zone between the land surface and the water table.