MARCH 2023 AIPG-TX WEBINAR ANNOUNCEMENT

Tuesday, March 21st, at 7.00 p.m.

Dr. Brian Smith

Principal Hydrogeologist, Barton Springs/Edwards Aquifer Conservation District

RECHARGE ENHANCEMENT & MULTIPORT WELL MONITORING OF THE EDWARDS AQUIFER

Multiport monitor wells have been used by the Barton Springs/Edwards Aquifer Conservation District (BSEACD) to study complex, multilayer, and stacked aquifers in Hays and Travis Counties, central Texas. Much of the data from water wells that are used for hydrogeological studies are of limited use because of the thickness of the aquifers, vertical variation in hydraulic properties, varying amounts of hydraulic connection between geologic units, and the often-uncertain completion of the wells. To address these concerns, hydrogeologists have employed various methods, such as installation of wells of different depths near one another, multilevel completions in a single borehole, and multiport wells. The BSEACD has used multiport wells to determine vertical variations in an aquifer and the hydraulic relationships between stacked aquifers. With multiport wells, properties such as hydraulic head, temperature, hydraulic conductivity, and water quality of discrete units within an aquifer, or multiple aquifers, can be determined. The use of multiport wells has shown how portions of the Upper Trinity lithologic units are hydraulically connected to the overlying Edwards lithologic units, and how the Edwards Aquifer is hydraulically isolated from the Middle and Lower Trinity Aquifers. One of these wells installed in southwest Travis County has shown that there is significant depletion of the Middle Trinity Aquifer in that area. Another multiport well installed in Hays County near Jacob's Well is helping us understand how groundwater in the porous matrix feeds groundwater to the conduits that discharge water from Jacob's Well and to the deeper aquifer downgradient east of the spring.

OUR SPEAKER

Brian Smith has been the Aquifer Science Team Leader and Principal Hydrogeologist at the Barton Springs/Edwards Aquifer Conservation District since 2001. At the District, he has guided the science program to support policy makers in management of the aquifers within the District. Most of his 35+ years of professional experience have involved the study of karst and aquifers developed in karst. Prior to working at the District, he worked for private consulting companies doing contaminant hydrogeology.
Dr. Smith has a bachelor's degree from Rice University in Houston and a Ph.D. from the University of Texas at Austin. He is licensed as a Professional Geologist in the state of Texas.

LINK: Register at https://aipg.org/default.aspx. On the lower right hand side of the page is a box "CALENDAR". This event is the last item in the list. Click on it to register

COST (Includes certificate for 0.1 ceu/1.0 PDH):
AIPG Members: $10. Non-Members: $25 AIPG Student Members: Free Other Students: $5.00

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