



Joseph D. Haber, PG

Principal



Professional Credentials

Professional Geologist License FL No. 2631

Areas of Expertise

Hydrogeology • Water Use and Consumptive Use Permitting • Groundwater Flow Modeling • Wellfield Design and Production Management • Aquifer and Well Testing • Contractor Oversight

Education

B.S., Environmental Science and Policy,
University of South Florida, 2000
M.S. Hydrogeology, University of South Florida,
2005

Project Experience

OVERVIEW – Joseph Haber, P.G. has over 18 years of practical experience in Florida Hydrogeology, Hydrology, Geochemistry, Geographic Information Systems, and complex groundwater flow modeling and impact analysis. He has broad experience in Water Use Permitting (WUP), compliance and reporting as both a former Southwest Florida Water Management District (SWFWMD) employee and as a consultant. Mr. Haber is experienced in well and wellfield design (including complex brackish groundwater environments), water quality analysis, brackish wellfield management, aquifer performance testing, and geophysical logging.

Water Use and Consumptive Use Permitting - Mr. Haber's experience in the Brooksville Regulation Department of the Southwest Florida Water Management District (SWFWMD) consisted of Water Use Permit (WUP) application evaluation, water supply assessments, permit compliance resolution, preparation and development of groundwater flow models, and technical assistance for applicants. Mr. Haber has WUP and Consumptive Use Permit application preparation experience, including public supply, agricultural, mining, dewatering, recreational, aesthetic, and industrial/commercial water uses.

Groundwater Flow Modeling - Mr. Haber has extensive experience working with both regional and localized groundwater flow model simulations using the United States Geological Survey (USGS) MODFLOW code and Groundwater Vistas pre/post-processing software. This includes experience using the SWFWMD's Southern District Model, Northern Tampa Bay Model, and the District-Wide Regulation Model (DWRM) that the Southwest Florida Water Management District (SWFWMD) uses to assess

potential water use permit impacts.

Wellfield Design and Production Management – Mr. Haber has experience designing and managing wellfields throughout Southwest Florida. This includes wellfield design, groundwater flow modeling, optimization of production well locations, aquifer performance testing and assessments of potential impact to legal existing users, environmental features such as wetlands and streams as well as minimum flows and levels. Mr. Haber has also authored wellfield management plans that include wellfield rotation schedules, water quality monitoring, pumpage distribution flexibility, water quality guidance and trigger levels, and corrective action plans.

Sarasota County's Venice Gardens No. 1A and 2 Deep Injection Wells – Mechanical Integrity Tests

Progressive Water Resources (PWR) was contracted by Sarasota County to perform Mechanical Integrity Testing at the County's Venice Gardens Water Reclamation Facility DIW No. 2 in 2014 and at the County's Venice Gardens Water Treatment Facility DIW No. 1A in 2016. For both tests, Mr. Haber served as Project Manager and oversaw tasks which included development and submittal of an MIT Test Plan for FDEP approval; development of technical specifications for the test, project scheduling and coordination; hydrogeological and field testing services oversight; and development and submittal of the data and results of the MIT Report to the County and FDEP. Both tests were deemed successful.

Sarasota County's 2011 Deep Injection Well Annual Operational Summary Report Development and Submittal

PWR was contracted by Sarasota County to development and submit DIW Operational Summary Reports for the County's four (4) DIW facilities including: the Atlantic/Brentwood Water Reclamation Facility DIW System, the Center Road Class I DIW System, and both Venice Gardens No. 1 and 2 Water Treatment Plant DIW Systems. Tasks included compilation and analysis of injection flow rate, effluent injection volumes, injection pressures, water quality and water level data, and summarization of the data analysis into a comprehensive report for submittal to the FDEP as required by the DIW system's Underground Injection Control (UIC) permit.

City of Venice Water Use Permit Renewal, Sarasota County, FL

Mr. Haber co-managed the WUP renewal application for the City of Venice Reverse Osmosis Brackish Water Wellfield including application preparation, reasonable demand analysis, water conservation planning and groundwater flow modeling. Mr. Haber utilized GIS to evaluate the efficacy of the City's monitor well network and performed a spatial analysis of the seasonality of groundwater water quality concentrations in both of the City's wellfields. PWR also provided recommendations and revised language to enhance the City's Wellfield Management Plan to increase efficiency while minimizing impact.

City of Venice Wellfield Evaluation Report, Sarasota County, FL

Mr. Haber prepared a Wellfield Evaluation report for the City of Venice regarding the status and disposition of the each of the City's fourteen (14) active brackish water production wells. The evaluation included compilation and review of yield, drawdown and water quality time-series data for each of the production wells. Historical construction and maintenance records were compiled for each production well to provide a chronological history of each production well. Recommendations included establishing a proactive maintenance and rehabilitation program consisting of scheduled inspections and logging of production wells in an effort to identify potential issues that could cause loss of production or increases in water quality concentrations.

City of Venice Implementation of Production Well Maintenance and Rehabilitation Program, Sarasota County, FL

PWR assisted the City with implementation and oversight of the maintenance and rehabilitation program which included logging (geophysical and video) six of the City's production wells. PWR oversaw the disassembly of the wellhead, specific capacity testing, inspection of pump string and wiring, geophysical (static and dynamic) and video-logging and reassembly of the wellhead. PWR assisted in writing the final report which evaluated the geophysical and video logs for each of the six wells. The report recommended several rehabilitation activities that included manual scrubbing, super chlorination, acidization and well development in an effort to increase production and decrease water quality concentrations.

Peace River / Manasota Regional Water Supply Authority - Water Supply Feasibility Study, Manatee, Sarasota and Charlotte Counties and DeSoto Counties, Florida

Mr. Haber's efforts included: a comprehensive assessment of hydrogeologic data; GIS identification of water quality, water level and aquifer confinement characteristics; numerical groundwater flow modeling; an assessment of the potential for saline water intrusion and MFL impacts; and identification of production well specifications and cost estimates. The project efforts ultimately indicated that development of integrated and regionally-connected surface and groundwater facilities has significant potential to provide sustainable and reliable supplies for the four-County region.

City of Punta Gorda Groundwater Feasibility Study, Charlotte County, FL

Mr. Haber performed a comprehensive assessment of: hydrogeologic data and literature for both the Intermediate Aquifer System (IAS) and Floridan Aquifer System (FAS); GIS spatial analysis of water production, water quality, water level, and aquifer confinement characteristics; the potential for saline water intrusion; and identification of related wellfield management considerations. Mr. Haber compiled detailed hydrogeologic spatial data and used ESRI ArcMap software to identify optimal wellfield locations, production well specifications and preliminary wellfield configurations.