



Joseph D. Haber, PG

Principal Hydrogeologist



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

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 Injection System Internal Summary and Annual Operations Reports

PWR and ASR Systems, LLC are currently under contract (2020 to 2022) to provide two (2) Bi-Annual Internal Summary Reports and one (1) Florida Department of Environmental Protection (FDEP) Annual Report from 2020 to 2022. Mr. Haber serves as PWR's project manager and principal hydrogeologist for this project. Each report compiles, summarizes and evaluates the injection well system's operations and water quality data for injection and monitor wells at the County injection well facilities. Sarasota County Injection Well Systems consist of six Underground Injection Control (UIC) systems that include five (5) Class I Injection Wells and one (1) Class V Aquifer and Storage Recovery (ASR) well.

In compliance with FDEP Underground Injection Control (UIC) Permits and Chapter 62-528 Florida Administrative Code (FAC), an annual report is required to be prepared to summarize the operational and water quality data of the County's Injection and ASR Well Systems for the period of January 1 through December 31 each calendar year for submittal to FDEP the following year. Operational data consists of injection flow rates, effluent injection volumes, total injection volumes, injection pressure, whereas monitoring data consists primarily of water quality data from the injection wells and water quality and water level data from monitor wells. PWR reviews the period of record files for completeness, data discrepancies and anomalies. Summary statistics are completed, and a discussion of long-term data trends and observations for the period of record is provided to the County.

City of Punta Gorda – UIC DIW Construction Permit Renewal, UIC DIW Initial Operation Permit, Mechanical Integrity Test

Progressive Water Resources, LLC (PWR) is the lead consultant for this project. PWR was contracted to provide regulatory and hydrogeologic services related to: 1) development and submittal of a renewal application for an Underground Injection Control (UIC) Permit for a Class I Reverse Osmosis (RO) concentrate disposal well; 2) development and submittal of an initial application for the Class I UIC Operation Permit for the RO concentrate disposal well; and 3) planning for and overseeing a Mechanical Integrity Testing (MIT) of the Class I RO concentrate well. Development and submittal of the UIC Construction Permit renewal application was completed on time and on budget in January 2021. Mr. Haber served as one of PWR's principal hydrogeologists and technical lead for this project.

Development and submittal of the initial UIC Operation Permit application is scheduled to be initiated in June get underway in June 2021. Development of an MIT Plan and Bid Specifications was completed in March 2021 and the MIT is scheduled for August 2021.

Lake Okeechobee Watershed Restoration Project (LOWRP) Aquifer Storage and Recovery (ASR) Wells - Specialized Hydrogeologic Services (Continuous Coring)

Stantec Consulting Services, Inc. (Stantec) is currently engaged with the South Florida Water Management District (SFWMD) to provide consulting services for the "Lake Okeechobee Watershed Restoration Project" (LOWRP). Stantec has contracted with PWR to provide technical oversight services during formation well construction, continuous wireline coring and packer testing of one (1) proposed Aquifer Storage Recovery (ASR) monitor well as part of the LOWRP referred to by the SFWMD as "C38S" (Site). PWR has been assisting Stantec by observing and documenting the geologic and hydrogeologic data in the form of continuous cores samples, monitoring and collecting water quality samples for laboratory analysis, overseeing and documenting geologic and hydrogeologic-related activities at the site, and providing observation of conversion of the completed core hole into a dual-zone monitor well.

Mr. Haber serves as PWR's Project Manager and principal hydrogeologist on this project. The project includes continuous wireline coring from 500 to 2,000 feet bls (~150

core boxes) and ~50 off-bottom packer tests which include specific capacity testing and water quality sampling. Once coring is complete, PWR will also prepare a Technical Memorandum that documents PWR's observed construction and testing activities, and presents an evaluation of associated water quality, continuous coring and packer testing data.

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 Atlantic-Brentwood DIW System Operation Permit Renewal and Mechanical Integrity Testing

PWR was contracted to provide hydrogeologic services related to completion of a Mechanical Integrity Testing (MIT) and development and submittal of an Underground Injection Control (UIC) Operating Renewal Application for the Class I Atlantic/Brentwood Waste Reclamation Facility (WRF) IW-1. Mr. Haber served as PWR's project manager and principal hydrogeologist for this project. The MIT was successfully performed and the IW-1 was re-rated for a higher operating pressure. The DIW system UIC operating permit was successfully renewed for an additional 5 years.

PWR provided services: the preparation and submittal of the MIT Test Plan to UIC staff, development of technical specifications for MIT contractor selection, development of bid request documentation, well contractor selection, MIT field testing and performance oversight and documentation, development and submittal of MIT summary report to UIC staff, preparation and submittal of the UIC Operating Permit Renewal Application, coordination with UIC and Sarasota County staff during application review. FDEP issued the Atlantic-Brentwood UIC permit on January 30, 2019.

Sarasota County Atlantic-Brentwood Deep Injection Well (DIW) IW-1 Acidization and Rehabilitation

ASR Systems, LLC and Progressive Water Resources, LLC (ASRS/PWR) were contracted by the SCPU via Work Assignment No. 2019-032 to assist the County with acidizing the Atlantic/Brentwood Class I injection Well (IW-1) to reduce well clogging and increase recharge flow rates while meeting flow rate and injection pressure constraints imposed by FDEP in the current UIC permit. Mr. Haber served as PWR's project manager and principal hydrogeologist for this project. Tasks included the development of a rehabilitation plan and well contractor technical specifications, well rehabilitation activity oversight and develop a post-rehabilitation report.

The acidization of Well IW-1 included the injection of 36,000 gallons of 28% (18 Baume) hydrochloric acid supplied by eight tanker trucks over a 2-day period of time. The acidization was successful and yielded a Specific Injectivity increase of 476% from 10.5 gpm/psi to 60.46 gpm/psi. The well contractor also installed a Stainless Steel (SST) saddle tap with two cam-lock connections that will allow the addition of chemicals (e.g., acid, descalant or a disinfectant) and/or potable water into the well as needed without the need to remove the wellhead.

Sarasota County Venice Gardens Deep Injection Well System No. 1 System Plugging and Abandonment

Progressive Water Resources, LLC. (PWR) was the prime (and sole) consultant and project manager for this project. PWR was contracted to permit and oversee the completion of the plugging and abandonment of the Venice Gardens Class I Deep Injection Well (DIW) No. 1 (IW-1) and its associated dual-zone monitor well(s) (DZMW), MW-1A and MW-1B, located at the Venice Gardens Reverse Osmosis Water Treatment Facility (RO WTF). This included the closure of the underground RO reject line to the well and reconnection of the RO reject line to the County's IW-1A DIW.

Mr. Haber served as PWR's project manager and principal hydrogeologist for this project. PWR provided services included the development, preparation and submittal of the Plugging and Abandonment Plan and Permit application to UIC staff, development of technical specifications for contractor selection, development of bid request documentation, well contractor selection, underground piping demolition and construction oversight and documentation, DIW and monitor well abandonment

oversight and documentation, development and submittal of plugging and abandonment summary report to FDEP UIC. As needed coordination with County and UIC staff.

Beach Terrace Association's Injection Well (DIW) Design and Construction Oversight and Production Well Investigation

Progressive Water Resources (PWR) was contracted to provide hydrogeologic services related to design, permitting and construction of an upper Floridan Aquifer injection well site in the coastal environment of Siesta Key, Sarasota County, Florida. Upon completion of the DIW, PWR also assisted the Client with a hydrogeologic and geophysical investigation of their malfunctioning upper Floridan Aquifer system production well. Mr. Haber assisted with various efforts which included but were not limited to project planning; state, regional and local permitting; cost estimation; well design; and creation and management of a Request for Proposal for Well Drilling Contractors as well as interviewing Respondents and providing a recommendation to Beach Terrace.