EXPERT WITNESS LIST

Paul V. Sherma, P.E.

Kenneth C. Jones, P.G.

Michael Keans, P.E.

Stephen Hazeltine

Gary A. Scott

Austin Davis

Rick Harrison

PAUL V. SHERMA, P.E.
B.S.C.E., B.S.B.A., B.S.G.S., M.S.C.E.
(Florida Registration #PE 0035628)
(General Contractor's License #CGC 040556)

After serving three years in the military, Mr. Sherma received his Bachelor of Science in Civil Engineering, Bachelor of Science in Business Administration (majoring in Finance), Bachelor of Science in General Studies degrees from the University of Central Florida and his Master of Science in Civil Engineering from Georgia Institute of Technology.

Mr. Sherma is Vice President of Professional Engineering Resources, Inc., (PEER, INC.), an Engineering and Planning firm in the City of Largo, Florida. Mr. Sherma established PEER, INC., after resigning as Vice President of Engineering with George F. Young, Inc.. Professional Engineering Resources, Inc. has been responsible for the design of over 400 Land Development projects which includes Roadway design. The Projects consisted of Site Planning, Feasibility Reports, Design of Water Distribution Systems, Sanitary Sewer Systems, Storm Drainage Systems, Grading and Roadway Design. In addition, all applicable permit applications were submitted and applied for from the Water Management District, Department of Environmental Protection, Florida Department of Transportation, Health Department and the City or County for the Infrastructure improvements. In addition, Professional Engineering Resources, Inc. provided Construction Phase Services which consisted of bidding the projects, review of shop drawings, inspection of improvements as they were being installed, preparation of record drawings and certification of the project. Professional Engineering Resources, Inc. has also assisted with Regional Impact studies for several major developments. PEER has designed and permitted projects all over the state of Florida. These projects range in size from 0.50 acres to 500 acres. Examples of project design include:

Commercial Developments

* Exxon * Shell * NationsBank * Food Lion * Sound Advice * Circle K * Checkers
* Publix * Medical Centers * Nursing Homes * LazyDays RV Center * Absolute Windows
* Adult Congregate Living Facility * Laurel Interchange Business Center

Residential Developments

* Single Family Subdivisions as large as 500 acres * Waterford North and Waterford South
* New Haven East * Southpointe * Casa del Lago * Vista del Lago * Auburn Woods
* Auburn Cove * Retired Officer's Village * Mobile Home Parks * Auburn Hammocks
* Mirabella Condominiums * Tuscany Lakes Condominiums * Wyngate Apartments
* Island Park Condominiums * The Palms at Riviera Dunes * River Preserve Condominiums
* Waterfront on Venice Island * Tampa Tech East * Hidden Lakes Club * Cassata Lakes
* Cottages of Venice * Fishermans Wharf * Cassata Place * Lakeside Cottages * Arcata del Sol
* Sweetwater Lakes * Cassata Shores * Isola Casa

Office Parks

* Lakeview Office Park - 100,000 SF * IRS Office Building - 140,546 SF * Gateway Centre
* Tuscany Commons Office Center - 41,746 SF * PEER Office Building - 4,728 SF
* 2020 Professional Center - 14,000 SF

Other Projects:

* Borrow Pits * Roadways * Master Drainage Systems
* City of Bushnell / Sumter County Regulatory Storm Facility (SWFWMD)

Mr. Sherma has acted as an expert witness in the State of Florida with regard to Civil Engineering, Construction, Traffic, Drainage and Planning for private property owners as well as government entities.

At George F. Young, Inc., Mr. Sherma, directed a group of approximately 12 Engineers, Draftsmen, and support staff. He was responsible for providing technical direction and supervision in the preparation of construction plans. This included sanitary sewer systems, water distribution systems, storm drainage, roads, grading, and specifications. His work also included the preparation of cost proposals, evaluation of subcontractors, writing of technical specifications, hydrological simulations, stormwater runoff, and coordination of personnel.

Prior to joining George F. Young, Inc., Mr. Sherma worked as an Engineer in the Engineering Department of the Southwest Florida Water Management District where he prepared flood studies evaluating the flooding impacts due to different rainfall events. As Project Engineer, his work required the collection, evaluation and management of vast quantities of data pertaining to the hydrologic and hydraulic characteristics of selected flooding regions. Mr. Sherma has extensive experience in watershed modeling and hydraulic engineering design. His work included hydraulic analyses of numerous lakes in Pasco and Sumter Counties. He has received formal training from the University of Florida, under Dr. Huber, on the Storm Water Management Model (SWWM) and from Georgia Institute of Technology on the HEC1 flood model and National Weather Forecasting Model. Mr. Sherma was also responsible for implementing and assisting in placing a Water Balance Computer Model (HSMI) on the Southwest Florida Water Management main frame computer. This model was used by Mr. Sherma in flood studies requiring a continuous model to simulate variable gate openings, interconnected water bodies, recharge areas, evapotranspiration and time and special dependent rainfall values.

In addition to working in the Engineering Department, Mr. Sherma also worked in the Southwest Florida Water Management District Surface Water and Storm Water Permitting Department and was responsible for evaluating a variety of Civil Engineering construction plans and Roadway Plans to insure compliance with Florida Statue 17-25 (Water Quality), Stormwater and 40D4, Surface Water Rules.

Prior to his employment with the Southwest Florida Water Management District, Mr. Sherma was a Staff Engineer for Stone and Webster Engineering Corporation. As a Staff Engineer in the Engineering Mechanics Division, Mr. Sherma was responsible for developing design guidelines and standards for pipe supports and embedment plates used on the Mohawk Power Corporation's Nine Mile Point Nuclear Station - Unit 2 project (1100-MW boiling water reactor) and Gulf State Utility Company's River Bend Station - Unit 1 project (940 MW boiling water reactor). The development of the guidelines and standards required extensive use of several finite element programs. Mr. Sherma also wrote the original draft paper submitted to the Society of

Mechanical Engineers, titled, "The Affect of Pipe Support Location on Maximum Plat Stress and Stud Tension."

Previous to his employment with Stone and Webster Engineering Corporation, Mr. Sherma worked as a Research Assistant at the Georgia Institute of Technology while pursuing a Masters Degree in Civil Engineering. As a research assistant, Mr. Sherma conducted a physical hydraulic model study on a proposed earthen dam structure to be built in Chile. This study included the determination of velocity, dam toe erosion, sediment transport load and water surface profile measurements. In addition, pressure measurements along a spillway and the determination of eddy currents at all tunnel outlet structures and the dam toe were measured. The measurements from the hydraulic model study resulted in the earthen dam to be redesigned and re-tested to insure that a dam collapse was not evident. In addition to his research activities, Mr. Sherma developed a finite element computer model utilizing the continuity and momentum equations in determining overland and open channel low flows. Three numerical models were developed. The first numerical model utilized the continuity and momentum equations in differential form. The second numerical model approximated the momentum equation assuming the Kinematic wave approximation applied and the third model approximated the momentum equation assuming the manning equation applied. The results from all models were compared to establish the accuracy of the numerical procedures.

As part of his bachelor academic training at the University of Central Florida, Mr. Sherma assisted Dr. Martin P. Wanielista in the restoration of Lake Eola. Lake Eola is one of the focal social areas in downtown Orlando, Florida. Lake Eola is 11 acres in surface area and receives a high concentration of pollutants in stormwater runoff from commercial and residential areas. A proposed management plan for stormwater by diversion of stormwater and bottom sediment inactivation was developed. The Lake Eola study was the pioneer in establishing the current State of Florida Water Quality Rule regulated by the State Water Management Districts.

In addition to his work with Dr. Wanielista, Mr. Sherma was employed by Post, Buckley, Schuh & Jernigan, Inc., as an engineering technician. His duties included the design and drafting of Engineering Plans and as a field inspector to verify and inspect construction activities.

RESUME
KENNETH C. JONES, P.G.
PROFESSIONAL GEOLOGIST

EXPERIENCE SUMMARY

Mr. Jones has over 40 years of experience in hydrogeologic and environmental consulting and is knowledgeable in all aspects of Florida geology and groundwater analysis. Extensive experience in groundwater flow and solute transport modeling to determine contaminant migration, duration and efficiency of pumping systems, and drawdown impacts; and data analysis and interpretation. Mr. Jones environmental experience includes the performance of Contamination Assessments, Remedial Action Plans, environmental site assessments, and site remediation. Responsible for hydrogeologic investigations, supervision of exploratory drilling, wellsite stratigraphic analysis and well design, and all phases of water supply investigations.

PROFESSIONAL AFFILIATIONS

Certified Professional Geologist, State of Florida, Certificate No. PG00247.
Florida Association of Professional Geologists (FAPG)
American Institute of Professional Geologists, Certificate No. 7296.
Florida Section, American Water Resources Association (AWRA).
Association of Ground Water Scientists and Engineers, a division of the National Water Well Association.

EXPERIENCE RECORD

Hydro-Environmental Associates, LLC.
4806 West Azeele Street
Tampa, Florida 33609

June 1994 to present
Principal

Founding principal of Hydro-Environmental Associates, LLC (HEA), an environmental consulting firm specializing in hydrogeologic and environmental studies. Some of his most recent projects include:

- **South Florida Water Management District** – Conducted a hydrogeological assessment of the proposed Mecca Reservoir site, located in northwestern Palm Beach County. This reservoir will be designed to take excess flows from the east side of Lake Okeechobee during the rainy season, for storage, recharge, and treatment. As a part of this study, the Lower East Coast Subregional-North Palm Model, created by the SFWMD, was modified to evaluate the groundwater impacts of the proposed reservoir on the adjacent wetlands, streams, and aquifer levels.

- **Metro Development, Inc.** – Conducted a hydrogeologic study of the proposed Forest Lake Crystal Lagoon located in southeast Hillsborough County Florida to determine the water use requirements and recharge potential. Revised the SWFWMD DWRM2 groundwater model to evaluate the impacts of the proposed lagoon and to determine the water balance.

- **SRWMD/SJRWMD** – Conducted a hydrogeologic evaluation of the upper Suwannee River basin to evaluate several options for recharging the upper Floridan Aquifer (UFA) by using excess surface water. Extensive groundwater flow modeling was performed using the USGS MegaModel to quantify the impacts to numerous springs, rivers, and aquifer groundwater levels due to the various aquifer recharge options.

- **Pasco County, Florida** – Conducted a Wellhead Protection Study of a County wellfield. Determined the historic range in pumping from the wellfield and determined the 5 and 10 year capture zones of the

production wells. Conducted particle tracking using the MODPATH groundwater flow model to map the capture zones. The project is ongoing.

- **Progress Energy, Crystal River Complex, Florida** – Conducted an evaluation of the wellfields to determine the cause of increasing salinity and other water quality issues. Evaluated geophysical logs, lithologic logs, aquifer pumping tests, and conducted groundwater flow modeling to predict impacts based on current yields and well capacities. Identified several options for wellfield expansion. The project is ongoing.

- **Florida Strawberry Growers Association, Inc.** - Conducted a regional analysis of the potentiometric surface of the upper Floridan Aquifer (UFA) of the Dover/Plant City strawberry growing area to determine the actual trends in water levels of the UFA. The SWFWMD recently designated the Dover/Plant City area as a Water Use Caution Area (WUCA) and established a minimum flow and level for the area. The establishment of a WUCA is based on the assumption that there is a long-term decline in the potentiometric surface of the UFA. HEA evaluated the data from numerous monitoring wells in and around the Dover/Plant City area and reviewed historic potentiometric surface maps of the SWFWMD area. It was determined that there has been an increasing trend in water levels of the UFA during the last decade, and water levels have risen up to 30 feet in the area over the last 30 years.

- **Florida State Hospital, Chattahoochee, Fla.** – Evaluated the cause of elevated coliform bacteria concentrations in Well 1. Conducted geophysical logging, well sampling, sulfamic acid injection, and aquifer pumping testing. Determined the cause to be from a nearby stream.

- **Blue Springs, Washington Co., Fla.** – Conducted a hydrogeologic study to determine the feasibility of the site as a source of natural spring water for the sale of bottled water. The study included the collection of site specific water quality data of the springs, spring flow discharge measurements, regulatory database review and comparison, establishing permitting requirements, and data analysis and interpretation.

- **Gustafson's Dairy Facility**, Green Cove Springs, Florida - conducted quarterly natural attenuation groundwater and surface water monitoring as required by the Florida Department of Environmental Protection at this facility at over 25 well locations and surface water monitoring stations located throughout the facility. The contaminants of concern vary from polynuclear aromatic hydrocarbons, nutrients, volatile organic compounds, and metals, depending on the area of the site. Data from each monitoring well and other sampling station is evaluated on a quarterly basis and compared to established monitoring guidelines to determine if the wells meets or exceeds the default concentrations. Quarterly reports are submitted to the FDEP for review and approval. The project is ongoing.

- **University of South Florida,** Tampa, Florida – Prepared, submitted, and obtained approval for w Water Use Permit from the complex multi-use site. Water uses include golf course irrigation, athletic field and green area irrigation, industrial cooling tower water use, and municipal water use. Determined current water use using the AGMOD program and other methods, and established projected water use through the year 2030. Developed a groundwater flow model of the area based upon the SWFWMD's DWRM II regional model using Groundwater Vistas, Version 5. to predict drawdown impacts from the water use. The model was used to predict the loss of flow into the Hillsborough River from the pumpage and to insure that the established minimum flows and levels of the river would not be encroached upon by the withdrawals.

- **The Strand Development** - Conducted a soil and groundwater site assessment and soil remediation of a proposed office and residential complex, located within downtown Clearwater, Florida. The site was a former automotive sales and repair facility. Elevated arsenic and polynuclear aromatic hydrocarbons concentrations were identified from a specific soil layer underneath a concrete slab that was used for automotive repair and detailing. The horizontal and vertical extent of soil contamination was identified through the results of a series of discreet samples collected from within, around, and below the contamination zone. The contaminated soil was excavated from the site transported to a soil recycling facility for proper disposal. The project was completed and a No Further Action recommendation was approved by the Florida Department of Environmental Protection.

- **SRWMD** - Developed a groundwater flow model of the Drummond Wellfield, near Chiefland Fla.. The purpose of the project was to assess the possibility of developing a public water supply at the proposed 160 acre wellfield for future planning. The groundwater flow model was used to establish the drawdown impacts from pumpage and to quantify the impacts to nearby lakes, springs and rivers. HEA modified the existing North Florida Groundwater Model to include the proposed wellfield. The model was used to predict the loss of flow into Fanning/Little Fanning Spring, Manatee Spring, and Levy Blue Springs. All of these springs have established minimum flows and levels (MFL)s, and are located within Levy County. The results of the study indicated that the upper limit of a wellfield at the Drummond Tract approaches 3 million gallons per day, based on the assumption of 0.05 foot of drawdown at the nearby SRWMD MFL sites.

- **Stone Buick Site, Clearwater, Fla** - HEA conducted a soil and groundwater site assessment and site remediation of the former automotive sales and service facility. HEA initially conducted a Phase I and II Environmental Site Assessment (ESA) which identified the existence of numerous in-ground hydraulic lifts, an oil-water separator, a grease trap, and a septic system. The Phase II ESA included soil and groundwater sampling at the hydraulic lift areas, as well as within the oil-water separator, grease trap, and septic tank and leachfield. HEA oversaw site remediation activities to remove the in-ground hydraulic lifts, associated hydraulic oil and reservoirs; the oil-water separator; grease trap; septic system; and sand filter bed. Soil screening was conducted by HEA during the site remediation to define and delineate the extent of excessively contaminated soil. Approximately 35 cubic yards of excessively contaminated soil was excavated, transported, and thermally incinerated. The results of confirmatory sampling indicated that the contaminated soil had been successfully remediated, and the results of groundwater sampling indicated that concentrations of waste oil parameters were within the applicable GCTLs

- Prepared and successfully obtained a Water Use Permit (WUP) from the SWFWMD for the **TBBT Water, LLC** bottled water facility, located in Hardee County, Florida. This project involved conducting a hydrogeologic study, water use analysis, and groundwater flow modeling to predict groundwater impacts from the proposed production wells to be used as a raw water source for a bottling plant. The site consists of a reclaimed phosphate mine within the SWFWMD's Southern Water Use Caution Area (SWUCA) and uses the existing test production wells from the former phosphate mine as the water supply for the bottling facility. The SWFWMD's District Wide Regulation Model (DWRM II) along with Groundwater Vistas, Version 4, was used to predict the drawdown impacts. New groundwater impacts are not allowed within the SWUCA , however, this permit was allowed based upon the groundwater flow modeling effort.

- **City of Temple Terrace, Fla.** - Prepared and successfully obtained a WUP for the two wellfields. Developed a groundwater flow model of the wellfield based upon the SWFWMD's DWRM II regional model using Groundwater Vistas, Version 4. The purpose of the groundwater flow model was to establish the average and maximum drawdown impacts of pumpage from the newly renovated wellfield in support of a WUP renewal from the SWFWMD. The model was also used to predict the loss of flow into the Hillsborough River from the wellfield pumpage. The WUP was successfully renewed and a slight increase in pumpage was granted, even though the site is located within the Hillsborough River Basin, an area where the SWFWMD does not allow groundwater impacts to negatively affect the flow of the Hillsborough River.

- Conducted hydrologic assessments of the proposed **Discovery Bay Marina**, Aguada, Puerto Rico and La Cala de Dorado Development, Dorado, Puerto Rico. The goal of these assessments were to address potential impacts to the groundwater quality resulting from the construction of two separate proposed inland marina basins, which extended approximately 700 to 1,000 feet inland from the Atlantic Ocean. The proposed Discovery Bay is currently a sand mine, and La Cala de Dorado is currently a resort. The regional and local hydrogeology was described, and the water quality of the proposed marina basins were addressed, specifically in relation to the migration of the fresh water/ salt water interface. Groundwater flow modeling was conducted to quantify the fresh water contribution to the marina basins after construction and to establish the revised salt water interface. These reports were submitted for approval of a Development of Regional Impact to the U.S. EPA.

- Prepared and submitted a WUP and from the SWFWMD for the **Brooker Creek Lake** sand mine, located in northwest Hillsborough County, Florida. This sand mine is located in the vicinity of several major wellfields and adjacent to Brooker Creek, and is proposed to be over 50-acres in size when completed.

Developed a groundwater flow model of the proposed mine to assist in the design of the rehydration ditches and individual mine cells, to establish the average and maximum usage of groundwater from the mine; and to quantify the drawdown impacts of the mine dewatering on adjacent wetland areas. Also provided hydrogeologic assistance in support of an Operating Permit from the Hillsborough County Environmental Protection Commission (EPC), and an Environmental Resources Permit (ERP) from the SWFWMD. Based upon results of the groundwater model and hydrogeologic analysis, the Operating Permit was granted by the EPC and the FDEP, and the ERP and WUP were granted by the SWFWMD.

- Supervised the Site Assessment and remediation of the **Hart's One Stop Marina**, Holiday, Pasco County, Florida. The Site Assessment included the installation and sampling of numerous monitoring wells and soil borings to determine the lateral and vertical extent of petroleum contamination. Site remediation was achieved by a combination of overpumping and natural attenuation. The site was monitored over a several year period, and, upon completion of the project, No Further Action was granted by the Florida Department of Environmental Protection (FDEP).

- Assisted in the development of a water balance model and groundwater flow model of the proposed **Everglades Agricultural Area A-1 Reservoir** for the South Florida Water Management District. The purpose of the groundwater flow model was to evaluate the groundwater seepage from the proposed reservoir system. The surface water hydraulics and groundwater hydrogeology were studied in detail, and the results of a 30-day test cell seepage study were simulated using the Groundwater Modeling System (GMS) 5.1 model code. This reservoir is proposed to be 60,000 acres in size, and is located in northwest Palm Beach County.

- Prepared and submitted a WUP and several WUP modifications from the SWFWMD for the **Shelley Lakes Sand Mine**, located in Balm, Florida. This is one of the largest sand mines in southwest Florida, covering an area of over 250-acres. Developed groundwater flow models of the proposed mine expansions to assist in the design of the rehydration ditches and individual mine cells, to establish the average and maximum usage of groundwater from the mine; and to quantify the drawdown impacts of the mine dewatering on adjacent wetland areas. Also provided hydrogeologic assistance in support of an Operating Permit from the Hillsborough County Environmental Protection Commission (EPC), and an Environmental Resources Permit (ERP) from the SWFWMD. Based upon results of the groundwater model and hydrogeologic analysis, the Operating Permit was granted by the EPC and the FDEP, and the ERP and WUP were granted by the SWFWMD.

- Supervised the Site Assessment of the **Ready Store #81**, Tampa, Hillsborough County, Florida. The Site Assessment included the installation and sampling of numerous monitoring wells and soil borings to determine the lateral and vertical extent of petroleum contamination. The assessment activities were conducted under the authority of the Florida State Petroleum Preapproval Program. The assessment has been completed and is awaiting approval to begin remediation.

- Conducted a hydrogeologic study of the **Town of Davie** wellfield to determine the cause of excessive drawdown and degradation of water quality from the existing wellfield. Identified the cause of the problem to be from former deepening of the existing wells. Prepared specifications for the installation of new water supply wells and modification of the existing wells, oversight of the well installation, conducted stratigraphic interpretation and extensive aquifer pumping testing and analysis. In addition, groundwater flow modeling of the Davie area was performed in support of a modification to the Water Use Permit from the South Florida Water Management District. The groundwater flow model consists of three aquifer layers and covers the entire Broward County area. All of the existing permitted water uses have been added to the model to establish the regional drawdown impacts, and to determine the potential for saline water encroachment. In addition, major canals and other surface water bodies have been added to the model to enhance the predictive capability of the model. The data was managed and calibrated using Version 2.0 of Groundwater Vistas (GW Vistas), a pre-processing program, and the model simulations were conducted using the U.S. Geological Survey MODFLOW Version Win 32.

- Developed groundwater flow models of the **Jaymar Villas WWTP**, Ruskin, Florida, and the Pioneer Village WWTP, Lee County, Florida. The models included simulations of both existing and proposed

percolation ponds, and proposed spray effluent sites at these facilities. The purpose of these investigations were to establish the maximum infiltration potential of the various sites at build out. Both the recharge and evapotranspiration packages of the USGS MODFLOW Win 32 code were used to accurately simulate the site conditions. GW Vistas was used to manage the data and perform the simulations. The information from the simulations were provided to the FDEP for approval of the plant expansions.

- Conducted Phase I and Phase II Environmental Site Assessments (ESA)s at numerous locations, including shopping centers, industrial facilities, current and former gasoline service stations, automobile dealerships, and vacant and active agricultural land. Phase II ESAs were required at various sites, based upon the results of the Phase I results. Phase II ESA activities typically included monitoring well installation and groundwater sampling, soil boring installation and soil sampling, sediment sampling, review of laboratory analyses, and data evaluation.

- Developed a groundwater flow model of the proposed **Summerview Oaks Subdivision**, Ruskin Florida, in support of an ERP from the SWFWMD. The groundwater flow model was used to determine the hydrologic impacts of two wet detention ponds on the groundwater levels within the subdivision, and the impacts of the ponds on the adjacent Bullfrog Creek. GW Vistas was used to manage the data and to generate the water balance calculations and contour maps. The ERP was issued after review of the model by the SWFWMD staff.

- Supervised Mechanical Integrity Tests (MIT)s for two deep injection wells for the **City of Pembroke Pines**, Florida, and three injection wells for Pinellas County, Florida. The MITs were required upon renewal of the WWTP Operating Permits. The MITs included pressure testing of the injection casings, downhole video surveys to determine casing integrity, a radioactive tracer survey of the wells, and an analysis of water quality data from adjacent monitoring wells. Final reports detailing the results of the MITs were submitted to the FDEP, and the Operating Permits were approved based upon review of the MIT reports. Supervised the rehabilitation of two water supply wells for the City of Sarasota Verna Wellfield, Florida. The well rehabilitation process involved a State-of-the-Art process whereby liquid carbon dioxide was injected into the two water supply wells for the purpose of killing bacteria and opening the pore spaces in the rock formations. The study involved pre- and post- rehabilitation water quality sampling, video logging, and aquifer pumping testing and analyses.

- Conducted an extensive sinkhole investigation covering Hillsborough, Southern Pasco, and Northern Pinellas Counties to characterize if sinkhole development could be linked to groundwater pumpage from the major wellfields within the area. Obtained and updated a database of sinkholes occurrences within the study area and developed a temporal sinkhole distribution map.

- Revised and modified an existing groundwater flow model of **Hendry County**, Florida for the SFWMD. Hendry County contains an extensive surface water canal network and numerous wetlands that the original model did not accurately simulate. The original model was created by the SFWMD staff and consisted of a one-mile by one-mile model grid spacing and three aquifer layers. During this project, an additional layer was added to the model and the model grid was refined to a 500-foot by 500-foot cell size. The additional layer and grid refinement was added to more accurately define the canal network and wetland systems. Also, the model aquifer parameters and pumpage data were refined based upon updated information, and the model was recalibrated. GW Vistas was used to manage the extensive data network and for calibration of the model. The USGS MODFLOW Version Win 32 was the source code.

- Conducted hydrogeologic studies of Blue Springs, Washington County, Florida, and the Canaan Ranch, Gilchrist County, Florida. The purpose of these studies was to determine the feasibility of these sites as a source of natural spring water for the sale of bottled water. The studies included the collection of site specific water quality data of the springs, spring flow discharge measurements, regulatory database review and comparison, establishing permitting requirements, and data analysis and interpretation.

- Conducted a Contamination Assessment of an abandoned landfill located in Clearwater, Florida. The project involved conducting numerous test pit excavations to establish the vertical and horizontal extent of the landfill and to characterize the contents of the landfill material. The project also involved conducting numerous soil borings and the installation of monitoring wells, and obtaining soil and groundwater sampling for laboratory analysis.

- Project Manager for the implementation of a Contamination Assessment and Initial Remedial Action for **Aerosonic Corporation**, a large metal tooling and finishing facility in Clearwater, Florida. The Contamination Assessment involved a solvent spill migrating vertically and horizontally into various aquifers, and utilized standard well drilling as well as Hydropunch drilling and sampling to assess the extent of contamination.

- Conducted a study of an abandoned irrigation well proposed by the Hillsborough County Solid Waste Department for possible use as an industrial and municipal supply well. The study involved conducting and interpreting a suite of borehole geophysical logs of the well, performing a step-drawdown test and aquifer pumping test, obtaining groundwater samples for analysis of drinking water constituents, researching the regional hydro geology of the Ruskin area, and preparing a report of the findings.

- Evaluated the drawdown impacts of various proposed underdrain systems to alleviate groundwater seepage into the auditorium of **Durant High School**, Hillsborough County, Florida. The systems proposed for use included a well point network, gravity feed underdrains, pump operated underdrains, and sumps. Both the MODFLOW and QUICKFLOW model codes were used to simulate the impacts of the proposed collection systems.

- Developed a groundwater flow model of a proposed stormwater retention pond for **Tropical Sportswear International, Inc.**, in northern Hillsborough County, to simulate the drawdown impacts on adjacent wetland areas. The model was developed to include regional impacts from nearby ponds and streams. The simulations were performed using the MODFLOW and QUICKFLOW model codes. The information was presented to the Southwest Florida Water Management District and was approved as a part of the Stormwater Management Permit for the site.

- Developed a groundwater flow model of a portion of the **Cross Florida Barge Canal**, near Yankeetown, Citrus County, Florida. The purpose of the model was to determine the extent and magnitude of vertical saline water intrusion when converting a former dolomite mine into a marina and connecting the marina to the Cross Florida Barge Canal. The simulations were performed using the MODFLOW model code.

- Developed a groundwater flow model of the **Lee County Corkscrew Wellfield** in support of a Water Use Permit from the South Florida Water Management District. A seven-layer wellfield model was connected to a regional model of Lee County to predict the drawdown impacts from current and future withdrawals on wetlands and to estimate the movement of the fresh water/salt water interface. The design of the proposed wellfield expansion was also conducted using the groundwater flow model.

- Project Manager for the performance of a Phase I, II and III ESAs for the former **John Walker Ford, Stone Buick, and Stadium Toyota, and Stadium Lincoln Mercury** automobile dealerships, located in the Tampa Bay area, Florida. The Phase II ESAs included Closure Assessments of various underground storage tank systems, and the Phase III ESA of the former Walker Ford site involved the removal of numerous hydraulic lifts and sumps, and the removal of a former industrial wastewater treatment system. The Phase III ESA of the Stadium Toyota expansion included excavation oversight of various areas of buried debris, and on-site land farming of petroleum contaminated soil.

- Project Manager for groundwater monitoring and remediation of a **Sears Homelife** furniture site, located in Clearwater, Florida. Remediation of the former truck stop involved overpumping prior to each sampling

event. Dissolved petroleum hydrocarbon concentrations continuously declined during each subsequent sampling event and a No Further Action Proposal was expected to be approved.

- Project manager for Phase I and II ESAs for a future **Fosters Hollywood Restaurant** site located in Clearwater, Florida, a future nursing home facility in Tampa, an apartment complex in Temple Terrace, a former used car dealership in Clearwater, a doctor's clinic in Tampa that was formerly a gasoline service station, a veterinarian clinic in Brandon, a future mini-warehouse site in Temple Terrace, a former movie theater in Lakeland, a former movie theater in Elizabeth, N.J, a shopping mall located in Great Neck, New York, and a future church site located in Daytona Beach, Florida.

- Conducted a Contamination Assessment at a former drum recycling facility and landfill site, located in Ybor City, Tampa, Florida. The assessment involved the advancement of test pits and soil borings to characterize the landfill contents, the collection of composite and grab soil samples, the evaluation of laboratory data, and conducting negotiations with regulatory personnel.

- Project Manager for Underground Storage Tank Removal and Closure Assessments from a former **Republic Oil** service station and **Stadium Toyota** automobile dealership in Tampa, Florida, a ranch site located in Thonotosassa, Florida, the **Stone Automobile Dealership** in Clearwater, Florida, and the 4200 West Cypress Building in Tampa, Florida.

- Project consultant for a Contamination Assessment conducted at a dry cleaning facility located in Marietta, Georgia. The project included the performance of several single well aquifer tests, hydraulic analysis of groundwater flow and contaminant migration, and evaluation of remediation alternatives.

Engineering-Science, Inc. (ES)
2901 West Busch Boulevard, Suite 905
Tampa, FL 33618

1990 - 1994
Chief Hydrogeologist

Involved in the management and review of all hydrogeologic related projects for ES Florida operations. As Chief Geologist for Florida operations, Mr. Jones was responsible for conducting groundwater modeling studies to determine groundwater contaminant migration and associated impacts, data analysis and interpretation, project management, budget tracking and report preparation. Some of his relevant experience includes:

- Program Manager for numerous contamination assessments and remedial actions for leaking underground storage tank sites in Volusia County and Pinellas County, Florida. Performed groundwater flow modeling, supervised well construction, data evaluation, report preparation, remediation activities, and all phases of project management in a prime, internally drained area of Florida. Groundwater flow and solute transport modeling was used to simulate the impacts of recovery wells, recovery canals, and infiltration galleries, as well as to predict the length of time required for remediation.

- Technical Director for review of groundwater monitoring for the Texas Eastern Gas Pipeline Company. Responsible for review of groundwater studies for U.S. EPA Consent Decree requirements at approximately 75 site from Texas to Massachusetts.

- Manager of hydrogeologic investigations for the South Cross Bayou and McKay Creek Water Reuse Studies, Pinellas County, Florida. Conducted hydrogeologic investigations of the study areas, which included: inventories of all permitted water wells, sinkhole investigations, several detailed site evaluations, soil surveys, and development of groundwater monitoring plans for two slow rate reuse application sites for treated wastewater. Used groundwater flow modeling to predict the groundwater impacts of spray effluent discharge on five proposed sites within the study area.

- Performed an environmental fate and transport simulation to support a remedial investigation for the Eielson AFB, Alaska. Used the Multimedia Environmental Pollution Assessment System (MEPAS) model to evaluate the risk associated with a petroleum jet fuel storage tank farm located on the top of a ski slope located directly upgradient of a municipal wellfield. The risk model was used by the U.S. EPA to rank the site for hazard potential to human health and the environment.

- Task Manager for soils and hydrogeology, Myrtle Beach AFB, SC, and MacDill AFB and Homestead AFB, FL. Evaluated the impacts of various potential reuse alternatives on the soil and groundwater due to base closure and realignment. Described the hydrogeology of each of the study areas including karst features, identified sinkhole prone areas, developed water use projections, and developed regional groundwater flow models of each site to determine potential drawdown and saltwater intrusion impacts due to the various water demands originating from the reuse alternatives. Used the MODFLOW groundwater model code to predict the groundwater impacts.

- Conducted a hydrogeologic evaluation of a proposed expansion for a Rapid Infiltration Basin (RIB), Port Malabar, Florida. Obtained site soil and groundwater data, and developed a groundwater flow model to simulate the impacts of the proposed RIB expansion.

- Conducted an evaluation of a potential RIB for the Julington Creek WWTP, Jacksonville, Florida. Performed soil and groundwater sampling and analysis, and developed a groundwater model to simulate the loading potential of a proposed RIB System.

- Performed several residential evaluations of subsidence to determine if sinkhole collapse was the cause.

Delta Environmental Consultants, Inc.,
4200 West Cypress Avenue
Tampa, Florida

1988 - 1990
Senior Hydrogeologist

- Mr. Jones managed numerous contamination assessment projects involving leaking underground petroleum tanks within Florida, Georgia, and Alabama. His duties included groundwater flow and solute transport modeling to determine contaminant migration, duration and efficiency of proposed recovery systems, and drawdown impacts.

  Additional assessment activities included monitoring well and analytical laboratory data analysis and interpretation; project management and budget tracking; and report preparation.

- Mr. Jones conducted numerous contamination assessments at various petroleum leakage sites, and provided senior technical review and technical assistance for multiple Contamination Assessment Reports (CARs) and Remedial Action Plans (RAPs) as prepared by approximately 40 professionals.

Dames and Moore
One North Dale Mabry Highway
Suite 700
Tampa, FL 33609

1985 - 1988
Project Hydrogeologist

- Mr. Jones developed a finite-difference groundwater flow model and transport model of a proposed expansion of the Miramar, Florida wellfield to determine potential leachate migration from the nearby North Dade County landfill.

- Developed finite-difference groundwater flow models of several rapid infiltration basins within Indian River County, Florida, to determine percolation rates and direction of flow for treated effluent disposal.

- Developed a regional finite-difference groundwater flow model of the Ringling-MacArthur Reserve area, Sarasota County, Florida, for wellfield optimization and impact analysis, including salt water encroachment. The results of the groundwater modeling effort was used as supporting documentation for a water use permit which was obtained from the SWFWMD.

- Developed a regional finite-difference groundwater model of the Walt Disney World area, Orange and Osceola Counties, Florida, area to determine current and future wellfield impacts on groundwater and surface water levels. The model was also utilized for optimization of future production well spacing. All permitted withdrawals within the modeled area were included.

- Provided initial hydrogeologic input data, calibration, and assisted in technical training of project personnel for the Tri-County Wellfield investigation. The investigation, conducted for the SWFWMD, involved calibration of a groundwater flow and solute transport model of the Section 21, Cosme-Odessa, and East Lake Road wellfields in west-central Florida to show rates of saltwater encroachment based on various assumptions of future wellfield pumpage. Both 2-dimensional cross-sectional modeling and 3-dimensional regional modeling were conducted during this investigation. The Transient Analyzer of Reacting Groundwater and Effluent Transport (TARGET) model code was used to predict the water level and concentration simulations.

- Evaluated the cause of failure of a RIB system, Orlando, Florida. Developed a groundwater flow model using the MODFLOW code to assist on identifying the cause of a RIB system failure to perform to design capacities. Evaluated the initial assumptions used in the design of the RIB system and calibrated the model based upon current disposal rates.

- Conducted a water supply investigation of a commercial resort in the Playacar region of Mexico. The source of water was from several cenotes (sinkholes). Conducted groundwater sampling and performed cenote drawdown tests to determine changes in salinity due to pumpage.

- Supervised contamination assessments for a phosphogypsum stack, located in Nichols, Florida and for a resin manufacturing plant in Lakeland, Florida. Duties included monitoring well design and layout, well drilling supervision, data collection, and analysis, and contamination assessment report preparation.

- Responsible for management of a contamination assessment and remedial action of an airplane stripping and painting facility at Aero Services International, Inc., St. Petersburg, Florida.

- Performed environmental audits and pre-purchase assessments for a portion of the Homestead Air Force Base missile complex, Miami, Florida; the Whispering Oaks Estates, Ridge Manor, Florida; and the Tri-County Industrial Park, Oldsmar, Florida.

- Supervision of exploratory drilling and subsurface grouting operations in a sinkhole-prone area of Tampa, Florida, for the University of South Florida Psychiatry Center.

Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida

1978 - 1985
Project Hydrogeologist

- Project Management for southwest Florida groundwater availability inventory project. Designed and calibrated a three dimensional finite difference groundwater flow model of the entire SWFWMD area, southwest Florida, for use as a regulatory well permitting tool. All permitted pumpage from the SWFWMD data base was included in the model.

- Project Manager for an aquifer storage and recovery project at Lake Manatee, Florida. Conducted an in-depth evaluation of a method to recharge treated surface water into a limestone aquifer. Duties included design and construction supervision of the well network, and performance and analysis of various recharge and recovery test cycles. Authored a professional paper on Aquifer Storage and Recovery and presented the findings at the NWWA National Conference on Ground Water Management, October 1984.

- Hydrogeologic investigation of a proposed groundwater supply source, Ringling-MacArthur Tract in Sarasota County, Florida. Investigations included exploratory drilling and construction supervision, performance and evaluation of aquifer pumping tests, borehole geophysical log interpretations, and regional mapping.

- Hydrogeologist for the Environmental Section. Duties involved long-term monitoring of wellfield impacts on selected wetland areas. Pumpage from the Morris Bridge, Starkey, and South Pasco Wellfields were correlated with impacts within selected wetlands using water level trends from several background monitoring stations.

- Conducted a fluorescent dye test of a sinkhole located adjacent to the Tampa Bypass Canal to determine potential hydraulic connection to several water supply wells.

- Design of a regional water level monitoring well network in southwest Florida. Duties included preliminary wellsite stratigraphic analysis and monitoring well design, and well construction supervision.

Geraghty and Miller, Inc.
14497 North Dale Mabry Highway
Tampa, Florida

1976 - 1978
Project Hydrogeologist

- Conducted water supply investigations for the City of Sanibel Island, Florida. Investigations included exploration drilling for a supplemental supply of brackish water for use on an existing electrodialysis water treatment plant.

- Performed water supply investigations for Amax Phosphate, Inc., in Arcadia, Florida that included design, on-site construction inspection, and aquifer testing of a production well and monitor well network capable of yielding 15 million gallons per day of potable water.

- Supervised deep well injection of secondary treated effluent in Orange County, Florida. The project included on-site supervision of the test-injection well and injection testing of a system designed to dispose of effluent into a saline limestone aquifer. The test-injection well was completed to a total depth of 6,193 feet and completely penetrated the Floridan Aquifer system.

- Investigations of surface resistivity of Anastasia Island, Florida, that included surface resistivity mapping and profiling to determine the existence and extent of a freshwater lens in a semi-lithified coquina aquifer.

EDUCATION

- B.A., Geology, University of South Florida, Tampa, Florida, December 1975

- Ground Water Hydrology Short Course, Environmental Protection Agency, Orlando, Florida, June 1979.
- Ground Water Hydraulics Program, University of Florida Continuing Education Service, Gainesville, Florida, taught by Dr. S. Neumann and Dr. J. Bear, February 1981.
- Ground Water Modeling Short Course, St. Johns River Water Management District, taught by Mr. T.A. Prickett, July 1981.
- Modeling of Ground Water Flow Using Finite-Difference Methods, U.S. Geological Survey Short Course, Denver, Colorado, September 1983.
- Solving Ground Water Problems with Models, Conference and Exposition, Association of Ground Water Scientists and Engineers and International Ground Water Modeling Center, February, 1987.
- Environmental Permitting Summer School, The Florida Chamber, July, 1989, 1993, 1995
- The Use of MODFLOW For Analysis of Ground Water Flow Systems, Association of Ground Water Scientists and Engineers, a Division of the National Water Well Association, November 1989.

Michael Keane, P.E.
President

1859 Eau Claire Ct.
Oldsmar, FL 34677
727.644.3445
keaneacoustics@aol.com

CREDENTIALS

Michael has been providing acoustical consulting services since 1999 covering a wide range of domestic and international projects including Residential, Hospitality, Education, Arts, Worship, Commercial, Transportation and Athletic Facilities. His technical background includes the following:

- B.S. Electrical Engineering
- Master's Studies in Music Engineering
- Professional Engineer in the State of Florida

Michael has a high level of experience in architectural acoustics, electro-acoustics, and mechanical services noise and vibration.

Michael is highly skilled in a number of acoustic analysis and modeling applications, including intelligibility and reverberation time modeling, and on-site noise, vibration, reverberation time and intelligibility assessment.

PROFESSIONAL ASSOCIATIONS

- Acoustical Society of America
- American Society for Testing and Materials (ASTM) Member E33 Committee on Environmental Acoustics
- Audio Engineering Society
- Member Firm: National Council of Acoustical Consultants

SERVICES OFFERED

ARCHITECTURAL / ENGINEERING ACOUSTICAL DESIGN

- Hospitality
- Residential
- Hospitals
- Education
- Arts
- Worship
- Commercial
- Transportation
- Residential
- Stadia

ELECTRO-ACOUSTICAL DESIGN

- Public Address Systems
- Voice Alarm Systems
- Program Audio Systems

TESTING/ANALYSIS AND TROUBLESHOOTING

- Noise Code Compliance
- Reverberation
- Sound Isolation / Transmission
- Impact Noise
- Speech Intelligibility
- Mechanical Services Noise and Vibration Mitigation

ENVIRONMENTAL ACOUSTICS

EXPERT WITNESS

SELECTED PROJECTS

Michael's career experience encompasses projects small and large. He has been responsible for the design and commissioning of multi-million dollar acoustical and audio systems. Selected projects include:

Residential/Hospitality

Turnberry Ocean Club, Sunny Isles Beach,FL
Fontainebleau Resort, Miami Beach, FL
Soho Standard Hotel, New York, NY
Beacon on Third Condominium, St. Petersburg, FL
Element Hotel, Tampa, FL
Private Residences, NY, FL
Streamsong Resort, Streamsong, FL

Hospitals

Tampa General Hospital, FL
Mease Countryside Hospital, FL
Lee Memorial Hospital, Ft. Myers, FL
St. Joseph Hospital, Tampa, FL

Educational

MIT Simmons Hall, Cambridge, MA
WUSF Studios, Sarasota, FL
Cornell University, Ithaca, NY
UWI Lecture Theater, Port of Spain, Trinidad and Tobago
SUNY Purchase Music School, NY
FSU Asolo Conservatory, Sarasota, FL

Arts/Cultural

Charlottesville Amphitheater, VA
Austrian Cultural Forum, New York NY
Salt Lake City Library, Salt Lake City, UT
Art Institute of Chicago, Chicago, Illinois
National Cultural and Arts Centre, Trinidad and Tobago
Muhammad Ali Center, Louisville, KY
Miller Theater, Columbia University, NY
Figge Museum of Art, Davenport Iowa

Worship

Congregation Beth Shalom, Clearwater, FL
St. Jerome Parish, Indian Rocks, FL
Holy Name Monastery, Dade City, FL
Generations Christian Church, Trinity, FL
St. Anne Catholic Church, Ruskin, FL
Tampa Covenant Church

Commercial

International Plaza, Tampa, FL
Grimshaw Architects, New York, NY
One Liberty Plaza, New York, NY
Great Plains Software, Fargo, ND
Razor and Tie Records, New York, NY
National Fitness Chain (various FL)

Transportation

JFK International Airport, New York, NY
Pearson International Airport, Toronto
Dulles Int'l Airport, Washington D.C.
Los Angeles International Airport, CA
Miami International Airport, Miami, FL
Fulton Street Transit Center, New York, NY

Stadia/Athletics

Liverpool New Anfield Stadium, Liverpool, UK
Hudson River Park Pier 40, New York, NY
University of Cincinnati Athletic Center, Cincinnati, OH

STEPHEN HAZELTINE

PRESIDENT/OWNER

EDUCATION

-Sarasota County Technical Institute, Landscape, Irrigation & Horticulture Design

AWARDS

-2021 Winner of the Sarasota Home of the Year
-2022 Winner of Home of the Year for Design

LICENSES

-Certified Landscape Contractor #C98 00048
-Certified Landscape Designer #D92-27

CONTACT INFO

O: (941) 485-1272 Ext. 121
Email: SHazeltine@hazeltinenurseries.com
Address: P.O. Box 236
Venice, FL. 34284

Stephen Hazeltine is President and Owner of Hazeltine Nurseries, Inc., a full-service landscape development and maintenance company as well as a 90-acre growing nursery and tree farm located on North River Road in Venice, FL. Hazeltine Nurseries, Inc. specializes in designing and installing landscapes, hardscapes, irrigation, drainage and landscape lighting systems that transition the outer living areas of both residential and commercial properties.

Stephen is one of nine children and a fourth generation resident of the Venice area. He attended Sarasota County Technical Institute from 1982 to 1986 where he studied horticulture landscape design, irrigation and crop production. He is a certified landscape/irrigation designer and contractor in the State of Florida and a member of the Florida Nursery Growers and Landscape Association, Florida Landscape Architects Society, Florida Palm Society and TEC 2020 of Southwest Florida. He is also a member of the Board of Trustees at the Marie Selby Botanical Gardens and the Florida House Learning Center. Occasionally he speaks to civic and horticultural groups on proper design techniques and is often sought after for his innovative and eco-friendly designs. His passion is designing exterior living areas.

Stephen and his wife Michelle began their company in 1984. It has since grown to employ over 170 people and is one of the largest privately owned green industry businesses in Sarasota County.

Stephen and Michelle have two sons; Michael 34 who also works in the family business as the COO and Clayton, 32 the V.P. of Construction. They enjoy fishing and boating, football and working together.

GARY A. SCOTT

Venice , Fl. | 941-809-4899 | gary@hugheyservices.com

JUNE 12,2024

TO WHOM IT MY CONCERN:

I have worked in the Construction Industry since 1979. I began working as a Plumber and Fire Protection Contractor, 5 years at Gulf Shamrock Plumbing; then 15 years at Babes Plumbing. I then Worked for Hughey & Associates for 6 years doing Site work and Fire Protection. In 2005 – 2009 I went to work for Buildco Construction & Development as Vice-President. Due to the housing market downturn, I returned to Babes Plumbing and worked through 2013. In June of 2013, I went to work for Hughey Construction Services, where I am currently employed. I do all the Estimating & run a few larger projects for the Company.

Sincerely,

Gary A. Scott

AUSTIN DAVIS

941-740-0476
austin.davis1994@gmail.com
1426 NE Sunset Ave Arcadia FL 34266

EDUCATION

Trade School
Lively Tech
2016-2017

Venice High School
Class of 2013

CERTIFICATION

PRCA Member
2020

COMPETED IN OVER 100 RODEOS ALL AROUND THE SOUTH EASTERN CIRCUIT

Welding Certificate
Lively Tech

SKILLS

- Livestock Management
- Trustworthy
- Hardworking
- Welding Basics
- Animal Nutrition
- Property Maintenance
- Time Management
- Decision Making

WORK EXPERIENCE

Rollins Ranch
2017-2020

- Ensured maintenance of all ranch equipment and buildings
- Assisted in the training and instruction of new ranch hands
- Scheduled and coordinated daily tasks and activities for ranch hands
- Monitored and maintained fences, gates and other ranch structures
- Oversaw and was accounted for 1,200 head of cattle daily
- Rotated cattle weekly to different pastures on the property by horse back

Lykes Brothers Ranch
2020-2022

- Identified and addressed any issues with the health or safety of livestock and horses present during the workday.
- Exercised, fed and groomed livestock and equine animals as scheduled
- Ensured maintenance of all ranch equipment and buildings
- Documented daily activities, including feeding and treatment of livestock and the equine animals
- Monitored and maintained fences, gates and other ranch structures

Adam‘s Concrete
2019-2020

- Pouring, Finishing, and Patching Concrete
- Formwork and Layout
- Ability to Read Blueprints
- Preparing and Installing Rebar
- Curing and Sealing
- Mixing, Placing, and Finishing Concrete
- Skilled with Power Tools

Dieter’s Unlimited
2023-2024

- Supervised on-site work to ensure efficiency, quality and safety standards were met.
- Assisted in constructing buildings and assembling building components and equipment
- Followed blueprints and plans to complete construction projects on time and under budget.
- Operated heavy machinery and power tools with precision and safety.

2x4 Ranch
2016-2024

Day working activities to include

- Tractor Maintenance
- Pasture Maintenance
- Cow Pin & Horse Stable Maintenance
- Welding Basics
- Making sure all perimeters were secured for cattle and free roaming horses’ safety.

HORSE THERAPY

Magnawave Therapy Assistant
Shooting S Performance
2023-2024

- Electric Pulse Therapy to help horses perform better and recover faster from competition.
- Used as an alternative to drugs for the treatment of pain of inflammation due to arthritis, injuries and performance stress.
- Analyzed mannerisms of horses to determine how to treat arthritis, injuries and stress.