Hydrogeologic and Environmental Management Services

RFQ No.
22-R00070/PH

Submitted to:
Hernando County Board of County Commissioners

Submitted by:
WSP USA Inc.

May 25, 2022

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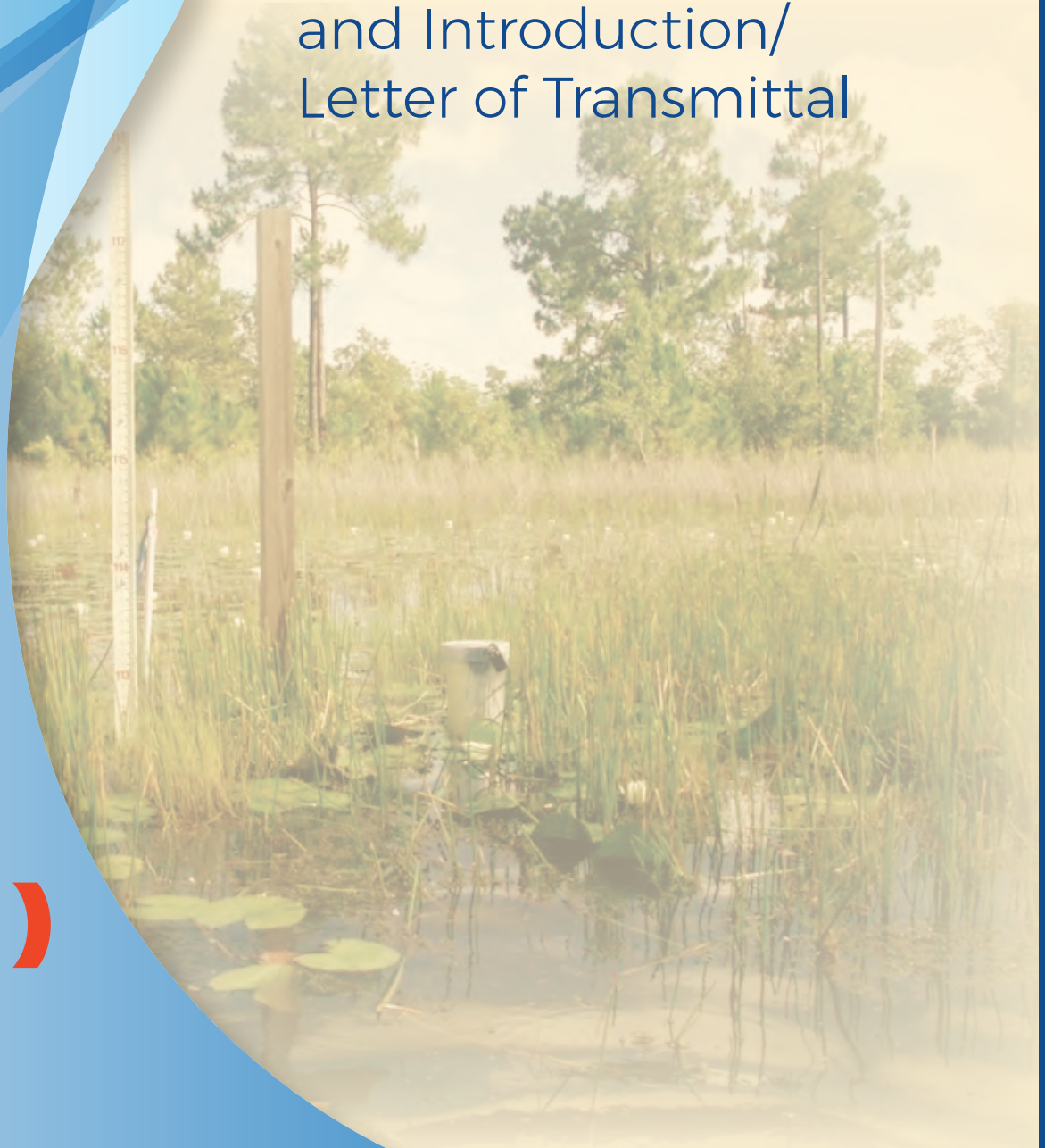
TAB 1

Statement of Interest and Introduction/ Letter of Transmittal



May 19, 2022

Ms. Toni Brady, Chief Procurement Officer
Hernando County Purchasing and Contracts Department
15470 Flight Path Drive
Brooksville, Florida 33604

5411 SkyCenter Drive
Suite 650
Tampa, FL 33607

wsp.com

RE: RFP No. 22-R00070/PH Hydrogeologic and Environmental Management Services Hernando County, Florida

Dear Ms. Brady:

WSP USA Inc. (WSP) is pleased to submit this Technical Proposal for RFP No. 22-R00070/PH, Hydrogeologic and Environmental Management Services. ***WSP has provided hydrogeologic consulting services to the County as the Continuing Services Hydrogeologic Consultant since 2006*** (prior to 2018 as Leggette, Brashears & Graham, Inc.). We have an excellent working relationship with County staff, and have a knowledge base of the County's facilities, plans, and hydrogeology of the area that is unparalleled. We have teamed with ***EcoHydrologix*** to provide environmental and ecological monitoring and reporting services. This team has worked together on several projects under the current and previous continuing services contract held by WSP. ***Together, the WSP team has performed all the hydrogeologic and environmental/ecological consulting services used by the County for the past 18 years.*** A separate letter of interest from EcoHydrologix is included in this section.

During the current five-year contract period, WSP provided a variety of services to the Hernando County Utilities Department (HCUD) including:

- Four modifications of the Water Use Permit to change proposed well locations, remove wells, redistribute individual well quantities and reduce or remove monitoring requirements for certain wetlands that were deemed to no longer provide relevant data.
- Bidding assistance and construction oversight of the new production well at Trilby Crossing.
- Revision of the Wellhead Protection Area (WHPA) zones for all the current County public supply wells, and assistance with updating of the language and regulatory references in the WHPA Ordinance to be consistent with the updated WHPA map.
- A soil assessment for a parcel adjacent to the County Solid Waste Landfill for suitability as a source of cover material for future use at the landfill.
- A preliminary evaluation of subsurface geologic conditions at the Lake Hideaway parcel to assess the suitability for construction of two new production wells and a ground storage tank.
- Implementation of the Environmental Monitoring Plan, including wetland monitoring and Annual Report preparation by EcoHydrologix, as summarized in their letter of interest.

Additionally, ***WSP prepared the Source Evaluation for the 2020 Potable Water Master Plan***. The plan provides the blueprint for capital improvement projects to improve and expand the County's water systems over the next 20 years. Based on the services WSP provided over the past five years, the we have an unmatched knowledge of the County's hydrogeologic and environmental management needs for the next five-year period.

We would like to highlight the following aspects of our proposal:

- Our ***Project Understanding*** describes the activities that have commonly been performed, many of which will likely be necessary over the next few years of this contract. Other activities discussed are those that we see may be needed based on current economic and regulatory conditions.
- Our ***description of previous projects*** and ***project personnel*** shows that we have the specialized experience and technical competence to perform this work.
- ***WSP stresses quality control.*** Our repeat business for many clients proves that we provide quality work, on time and within budget. We have not had to request a change order for price increases on any project since we have worked under

these continuing service contracts. In fact, in some case we have completed our projects under budget. Our familiarity with the County's facilities and hydrologic systems has allowed us to lower our costs to provide certain services, such as the environmental/ecological monitoring.

- Our workload and location are such that we can mobilize immediately and complete all tasks in a timely and cost-effective manner.

Services under this contract are provided on a task order basis. Our ***Project Manager Jeff Trommer, PG*** has managed Hernando County projects for 20 years. He has developed close working relationships with HCUD engineering and operations staff over many years. His knowledge of the County's well fields, history of the water systems, regulatory issues, and hydrogeology has proven valuable to HCUD staff on many occasions. As a result of our extensive experience, the WSP team is uniquely qualified to provide hydrogeological and environmental/ecological services to the County. We have an excellent understanding of the local and regional hydrogeologic and wetland systems in Hernando County and have been involved with the regulatory permitting and water supply planning activities for the County water supply systems for the past 20 years.

The following WSP managers are authorized to represent, negotiate, and execute task orders on behalf of WSP:

Master Contract Authorization:

Camille Dominguez, PE, Florida District Water Business Line Leader
7650 Corporate Center Drive, Suite 300
Miami, FL 33126
(305) 514-3158
camille.dominguez@wsp.com

Task Order Authorization:

Scott Manahan, PE, Tampa Water Business Leader
5411 SkyCenter Drive, Suite 650
Tampa, FL 33607
(813) 520-4444
scott.manahan@wsp.com

Kind regards,

WSP USA, Inc.

Camille Dominguez, PE
Principal-in-Charge,
Florida Water Business Line Lead

EcoHydrologix LLC
Environmental Consulting & Database Design

11 May 2022

Toni Brady
Chief Procurement Officer
Hernando County Purchasing & Contracts
15470 Flight Path Drive
Brooksville, Florida 34604

Re: RFP 22-R00070 – Hydrogeologic & Environmental Management Services

Dear Ms. Brady:

Please accept this statement of interest to provide environmental management services as a sub-consultant to WSP USA, Inc. (WSP) in support of RFP 22-R00070/PH. EcoHydrologix currently performs the environmental work required of the proposed project. As principal scientist, I authored the current (and prior) EMP(s) and perform the monitoring and reporting detailed in it. The body of tasks outlined in the proposed project's Scope of Services is intended to support continued implementation of the EMP and compliance with Special Conditions of the County's Water Use Permit (WUP) as they pertain to environmental features potentially affected by County groundwater production. It is understood that additional or supportive tasks also may be required, particularly as the County is in the process of modifying its WUP and EMP and also in response to a potential new Minimum Flow & Level (MFL) regulation for xeric wetlands. While it is not clear whether this MFL will apply to the xeric (i.e., sandhill) wetlands of Hernando County, no firm is better prepared to apply, address, or challenge the potential implications of (if need be) this MFL than EcoHydrologix.

Our qualifications truly are unmatched: 23 years direct institutional knowledge; advanced academic training in ecology, hydrology, and geology; focused research and two publications characterizing sandhill wetland/lake ecohydrology; extensive experience in the assessment and detection of wellfield-related impacts; a commitment to quality and cost control; and decades of regulatory trust.

We hope this gives the County the comfort that no firm is as qualified to provide the services required of the proposed project as are we. We thank you for the time and thoughtful reviews of our proposal.

Most kindly,

ReNae S. Nowicki, PhD, PWS
Owner/ President/Principal Ecohydrologist *(singular authorized representative of EcoHydrologix LLC)*

PO BOX 3526 Spring Hill, FL 34611 813.997.5036
rnowicki@ecohydrologix.com

Hydrogeologic and Environmental Management Services

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TAB 3

Response Summary and Questionnaire Responses

SECTION A: PROJECT UNDERSTANDING

This RFQ is intended to extend the existing continuing services contracting mechanism for hydrogeologic and environmental/ecological monitoring and reporting services required by Hernando County. As with the current and previous continuing services contracts WSP USA Inc. (WSP, (previously as Leggette, Brashears & Graham, Inc.) has held, we have included EcoHydrologix, Inc. to provide ecologic and environmental consulting services. EcoHydrologix staff have performed the environmental/ecological monitoring services for the past 15 years. The resulting institutional knowledge has been a valuable support to County staff, and in regulatory activities with the Southwest Florida Water Management District.

The WSP team has performed all the hydrogeologic and environmental/ecological consulting services used by Hernando County for the past 18 years.

The list of services in the RFQ can be divided into seven service areas that have been provided by our team under the current and previous contracts, and may be needed by the Hernando County Utilities Department (HCUD) over the term of the new hydrogeologic continuing services contract. The following is a discussion of these service areas.

Water Use Permitting (WUP) and Condition Compliance

WSP completed the previous 20-year WUP renewal for or Hernando County (WUP No. 5789) in 2015, including the renewal of the former East Hernando WUP No. 5789 in 2015. This renewal included consolidation of all six HCUD WUPs into WUP No. 5789. The WUP has been modified three times since then to add or remove wells, redistribute well withdrawal quantities, and reduce or remove monitoring requirements from the environmental monitoring plan. We are currently preparing an application to modify the WUP to add six proposed wells (two at Hexam Road, two at the Wiscon Facility, one at Gretna Road, and one at a site in the Sunrise development). These new wells were identified as needed to meet future demands or to replace wells planned for removal from service or identified as potentially irreparable over the next 20 years. This modification may include renewal for a new 20 year expiration date to address the increased demand projected in the 2020 Master Water Plan. Since this modification includes all the new source recommendations in the Master Water Plan and any additional adjustments identified in the Environmental Monitoring Plan, no additional modifications are anticipated unless wells are removed from service during the new contract period.

The other primary tasks for WUP to be performed under this contract are related to compliance with special conditions. Many of these conditions are related to water monitoring and reporting of water levels and environmental/ecologic data as described in the following section. Additional compliance issues that may need to be addressed under this contract include:

- Investigation of sinkholes that occur on County well sites, or reported by a landowner near a County well site.
- Investigation of well complaints from adjacent property owners to assess whether the well problem is due to the impacts of the County's pumping and, if so, recommend a solution to the complaint.
- Monitoring of minimum flows as they relate to the Hernando County water system.

Monitoring of minimum flows includes monitoring of current conditions with the existing Weeki Wachee Spring and Withlacoochee River minimum flows, the minimum lake levels that are set at several lakes in Hernando County.

Well Field Monitoring and Management

Proper completion of the proposed work requires an understanding of the:

- Unique environment to be monitored and reported upon.
- Implications of past and future wetland regulatory requirements.
- Body of tasks required to meet the County's Environmental Management Plan (EMP) and WUP requirements as both undergo noteworthy changes.

Whereas water suppliers elsewhere in the region are implementing recovery plans for wetlands impacted by groundwater production, Hernando County is not. The County's sandhill wetlands (and lakes) have appeared (to the eyes of many) to bear signs of impact - highly fluctuating water levels, oxidized soils, and an abundance of plants found as often in uplands as wetlands. These

characteristics, which occur naturally as a function of sandhill wetland geomorphology[1], are indicators of production impact at other regional wetlands. Consequently, the sandhill wetlands and surface waters of Hernando County have often been presumed to be impacted, both by folks living alongside them and by those examining them scientifically.

Until recently, there was only one published hydrologic study of sandhill wetlands or lakes specific to the area: that of a single lake in the southwest corner of the County[2]. Independent research by Dr. ReNae Nowicki (principal Ecohydrologist at EcoHydrologix[1] and current Environmental Manager for the County's current and past WUPs) published in the journal WETLANDS (and in press) add data on 19 additional sites from all four corners of the County[1,3]. These publications, a two-part series, provide the basis of understanding of fundamental sandhill wetland, pond, and lake ecohydrology and are especially important to the County given Minimum Flow and Level (MFL) criteria are soon to be released by the District for sandhill (aka "xeric") wetlands. It is not yet clear whether the proposed MFL (developed largely in response to impacted xeric wetlands in the Northern Tampa Bay Region) will apply to the hydrogeologically-distinct xeric wetlands of Hernando County. In the event it does, evaluating the appropriateness of the MFL for the detection of production-related impacts in Hernando County will become a priority for this project.

The body of tasks outlined in the Scope of Services is intended to support implementation of the County's EMP and Special Conditions of the County's WUP as they pertain to environmental features potentially affected by County groundwater production. ***The WUP itself is currently being modified by WSP, and a rewrite of the EMP by EcoHydrologix is pending.*** While future ecohydrologic monitoring and reporting tasks have yet to be determined, most are expected to proceed similarly to those currently required, as follows.

Hydrologic Monitoring at Wetlands, Ponds, and Lakes

Twice-monthly water level measurements are made from staff gauges when surface water is present and from shallow interior monitor wells when not. When standing water is present but minimal, staff gauge and well readings both are taken to ensure the surface water level reflects true wetland hydration and not ponded water that has not yet infiltrated. Dual water level recordings also are taken, on occasion, to ensure the devices have not shifted due to subsidence or other factors. Device maintenance is paramount for accurate, reliable water level data collection and is a WUP requirement. Data are reviewed for quality, in-situ, using a project-specific database application and field tablet, and prior to monthly submittal to the District.

Hydrologic Monitoring at Upper Floridan Aquifer (UFA) Monitor Wells

Water level data also are collected monthly from 11 monitor wells constructed within the UFA. Two of the wells are located at the shores of two MFL sites (Hunter's Lake and Weeki Wachee Prairie); the remainder of the wells are located in upland areas proximal to groundwater production wells. Monitor wells that open to surficial sands range from 50-80 feet deep; wells that open to limestone range from 120–630 feet deep. A surficial aquifer is not present in Hernando County, thus water levels in all wells reflect the unconfined UFA. Pressure transducers (installed by EcoHydrologix in all but one well where water levels are recorded manually) record hourly water pressure, which is converted to a depth-to-water level measurement. The data is downloaded monthly, reviewed for quality, and submitted monthly to the District.

Incidental Wildlife Monitoring

Incidental wildlife occurrences (evidence of calls, tracks, scat, or sightings) are documented monthly at the three MFL sites (Hunter's Lake, Tooke Lake, and Weeki Wachee Prairie) and twice monthly at the 23 monitored wetlands and ponds. The purpose is to provide evidence of utilization of these environmental features, particularly those considered wetland-dependent or Threatened, Endangered, or otherwise Rare. Monitoring events are structured to rotate the sequence of sites visited at prime wildlife utilization times. Wildlife data are reviewed for quality, summarized for the year, and presented in the annual environmental assessment report (AEAR).

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[1]Nowicki, ReNae S., et al. "The peculiar hydrology of west-central Florida's sandhill wetlands, ponds, and lakes–Part 2: hydrogeologic controls." (in press).

[2]Henderson, S. E. Hydrology of Hunters Lake, Hernando County, Florida. No. 85-4242. 1986.

[3]Nowicki, ReNae S., et al. "The Peculiar Hydrology of West-Central Florida's Sandhill Wetlands, Ponds, and Lakes—Part 1: Physical and Chemical Evidence of Connectivity to a Regional Water-Supply Aquifer." Wetlands 41.8 (2021): 1-25.

Semi-annal Wetland Ecological Monitoring

Ecological condition (i.e., plant species composition and distribution, soil condition, and wetland disturbance, drainage, and fire) is assessed at the end of the dry and wet seasons of each water year. Ground-level photographs are taken at fixed locations during these events. These data are currently collected using a slightly modified version of the 1999 Wetland Assessment Procedure (WAP). This form is different than that used at other regional wetlands (i.e., the 2005 WAP), which assesses wetland hydrologic recovery. As impacts have not been noted at County wetlands, and because this form is not considered appropriate for sandhill wetlands, the modified 1999 form is used and but with caution. Establishment of a xeric MFL may require use of a newer form such as that developed for the Northern Tampa Bay Region. An assessment of the suitability of this form for Hernando's xeric wetlands will likely be required as part of the proposed project, given the potentially important ecohydrologic differences between wetlands in both areas. In either case, ecological data and photos are reviewed for quality and evidence of groundwater production impact, and the findings presented in the AEAR.

Aerial Imagery Interpretation.

Aerial imagery interpretation is performed as images become available (every two to three years) to supplement ecohydrologic data collection and identify local and landscape level changes that may affect area ecohydrology. The assessment helps distinguish potential impacts related to groundwater production from to those attributable to other anthropogenic impacts such as hydrologic modification, agriculture, silviculture, roadways, mining, and other disturbances.

Annual Environmental Assessment Report (AEAR)

At the end of each Water Year (WY), the ecohydrologic data collected are compiled with County groundwater production and rainfall data and hydrologic data from other sources (e.g., National Oceanic and Atmospheric Administration, District, United States Geologic Survey). Data are analyzed statistically to identify any relationships between wetland ecohydrologic conditions and groundwater production and to distinguish potential production effects from those due to other anthropogenic or natural factors (e.g., precipitation, fire, geomorphology, etc.). Due to the strong ecohydrologic variation that exists among sandhill wetlands, statistical measures such as trend analyses, which focus on changes in a given wetland over time, are generally more meaningful than comparisons among treatment wetlands or strict contrasts between treatment and reference wetland groups. These comparisons and contrasts are still evaluated, but are done so with great deference to the heterogeneity inherent to all sites, so as to maintain the integrity and conclusions of the assessments.

When warranted by the data, additional statistical measures are conducted to ensure a thorough evaluation of factors affecting wetland conditions. For example, an important analysis of historical versus recent regional rainfall was performed for the WY2015 AEAR. It showed recent rainfall was significantly less frequent than historic rainfall, despite similar amounts of rain falling. A study for the WY2021 AEAR used radar to estimate rainfall at wetlands not located near rainfall gauges. This study importantly showed better hydration at reference versus treatment wetlands was the result of their markedly better rainfall. Given the confounding effect of rainfall and groundwater production on wetland water levels, analyses such as these can be crucial in the distinction of naturally occurring impacts from those due to groundwater production.

Water Supply Planning/Development of New Water Sources

WSP prepared the source evaluation for the 2020 20-year Master Water Plan. The source evaluation included the assessment of current MFLs on the proposed new well sites and potential future pumping distribution in the three main water systems. The assessment indicated that the proposed well locations and pumping distribution do not result in adverse impacts to current MFLs in and around Hernando County.

Many areas of Florida are currently experiencing an increase in growth rate that does not appear to be accurately accounted for by District demand projections. Increases in groundwater demand in Hernando County as well as surrounding counties can potentially affect impacts to MFL sites, and with it plans for future water sources in the region. The WSP team will continue to monitor new or revised MFLs in the region that could potentially impact the County's water system. We will advise the HCUD of any potential concerns, and if requested, the WSP team can participate in workshops related to the setting of these MFLs and perform a technical review of the methodology used to determine the MFLs to protect the interests of Hernando County. We will also monitor Withlacoochee Regional Water Supply Authority planning and source development activities and advise the HCUD of any potential effects on HCUD water supply planning and development.

Well Design, Construction and Testing

WSP has provided the hydrogeologic services related to the design and construction of more than 15 wells in the Hernando County Water System. There are currently six wells proposed to be added to the WUP as part of the current modification to meet the County's needs for the next 20 years. At least two of these wells are planned to be constructed under a Grants Projects General Engineering Contract. The remaining wells will be constructed as the need arises to replace existing wells that are taken out of service. Following is a description of the services provided for well construction and testing projects.

- Well construction and testing specifications will be prepared. The specifications include the specific well design, construction methodology, and testing procedures required to successfully construct supply wells that meet the County's standards. The specific construction methodology used for the Trilby Crossing wells should be included in all well construction specifications. WSP will attend a pre-bid meeting and assist with bid review and contractor selection.
- WSP will provide qualified professional consulting staff for observation of the drilling and construction of the new supply and monitoring wells. A key issue for optimum construction of wells in Hernando County is the selection of total well depth. Maximum depth of wells in Hernando County is limited by water quality and the depth of the primary producing zones. Identification of the depth to the primary producing zone is important because very little additional production is provided below this depth, and water quality deteriorates with depth. The geologist will also monitor conformance with the well construction specifications, provide detailed notes of drilling activities, and provide communication of site activities to the Project Manager. Assistance with review of monthly pay requests will also be provided.

Well Field Testing, Maintenance, and Rehabilitation

Most of the production wells in the Spring Hill and West Hernando systems were constructed during the 1970s and 80s, before testing and geophysical logging were performed during construction. Specific capacity values of these wells are highly variable, resulting in some wells having a low production capacity or excessive drawdown levels. Other problems, such as bacteria and pumping of sand have also occurred on occasion in a few wells. Review of available well construction and testing information that was complied for the 2020 Master Water Plan indicated that 25 of the 50 existing production wells have either no or unconfirmed specific capacity values.

WSP previously performed well testing and evaluation programs to collect data from several older wells, and HCUD staff have tested other wells when productivity issues have been observed. We have assisted HCUD staff with implementation or interpretation of the well testing and evaluation activities when requested and will continue to do so as part of our services. Data collected in the field, including geophysical logs, video logs, specific capacity test data, and observations of the pump equipment will be reviewed, and used with existing geologic and water-quality data to evaluate the following:

- The physical condition of the well casings, boreholes, and pump equipment.
- Local geology at each well.
- The producing capability of the wells, and the producing zone profile in each well.
- The water-quality characteristics of each well.

The results of the evaluation will then be used to provide HCUD with recommendations as to the need for rehabilitation, repair, modification, replacement, or abandonment of each well. An example of this was the recent assessment of the loss of productivity in well JA-2 at the Jamaica facility. WSP reviewed available information and recommended that the well be acidized to increase specific capacity. ***Acidization of the well resulted in the production rate increasing from less than 100 gallons per minute to over 300 gallons per minute***. WSP can further assist HCUD staff with similar assessments and acidizing for other low productivity wells in the system. Ongoing well evaluation and maintenance activities is crucial to ensuring the County's ability to meet demands with the existing production wells.

WSP can also assist HCUD staff with assessing well problems such as sand pumping, ground subsidence, and water quality issues. Assessment of ground subsidence and sand pumping problems includes use of ground-penetrating radar to identify potential sinkhole conditions, and geophysical logging and video surveys of the production wells to identify the source of the sand entering the well. Upon assessing the problem, we will develop rehabilitation/modification methods, and assist with coordinating implementation of the rehabilitation, modification, or abandonment and replacement of the problem wells.

Wastewater Treatment Facilities and Reclaimed Water

WSP previously provided services on a number of projects related to wastewater treatment facility (WWTF) effluent disposal and reuse sites. These services include preparation of groundwater monitoring plans, installation of monitoring wells, analysis of groundwater quality data from the monitoring well systems, development of loading rates analyses, and preparation of hydrogeologic reports for effluent disposal/reuse permits. Since the Glen and Airport WWTFs have recently been upgraded and expanded, including increases in rapid infiltration basin capacity, the primary services that could be needed under the new hydrogeologic services contract will be related to groundwater monitoring at the WWTFs and reuse sites, and assistance with permitting related to new reuse sites.

Contamination Assessment and Remediation

In addition to our traditional water supply and wastewater disposal/reuse services, ***WSP also provides a full range of groundwater contamination assessment and remediation services***. WSP has worked for both governmental agencies and the private sector on contamination projects involving landfills, lagoons, spill sites, septic tanks, above and underground storage tanks, and petroleum pipelines. Many of the assessment and remediation services performed in our Tampa office are performed for municipal water supply clients with contaminated properties such as motor pools and landfills. The delineation of contaminant plumes is normally completed through on-site field activities that may include the use of soil gas surveys, surface geophysical techniques, soil borings and monitor wells.

Hernando County has facilities that have required hydrogeologic assistance with respect to subsurface contamination, such as one of the County's Public Works facilities. Other areas where our assistance can be beneficial for addressing soil or groundwater contamination issues are the airport, roadway projects, fueling facilities and landfills.

SECTION B: PROJECT TEAM

Key Personnel Summaries

Key Personnel for WSP and other project team members are discussed below and their individual resumes are at the back of this section.

Jeffrey M. Trommer, PG | Project Manager

Jeff Trommer is a professional geologist and has 36 years of experience, primarily dealing with water-supply development, groundwater modeling, water use permitting, aquifer testing, and hydrogeologic evaluations. He is the Lead Hydrogeologist in the WSP Tampa office. Jeff has been managing hydrogeologic projects for Hernando County over the last 20 years and will continue to do so for WSP under this contract. He will oversee the evaluation of hydrogeologic information, permitting, design, water-quality analysis, modeling, and other hydrogeologic activities for this contract.

Scott Manahan, PE | Tampa Water Business Lead

Scott Manahan has over 30 years of experience in subsurface exploration including hydrologic assessment, well construction, and commercial, remedial, and domestic water treatment. His extensive experience and engineering background have made him a specialist in aquifer performance testing, hydraulic analysis, well construction, wellfield design, and pumping system design. His role will include well and pump design, well evaluation and rehabilitation, quality assurance, and report review.

Robert Maliva, PG | Senior Technical Review

Dr. Bob Maliva has over 30 years of international research and consulting experience in groundwater resources management, subsurface geology, and fluid flow investigations. Dr. Maliva is the senior author of five books: “Aquifer Storage and Recovery and Managed Aquifer Recharge Using Wells: Planning, Hydrogeology, Design, and Operation,” “Arid Lands Water Evaluation and Management,” and “Aquifer Characterization Techniques”. His role will include technical review of groundwater modeling projects and review of potential alternative source projects in the region.

Dalton Weinstein, PG | Hydrogeologic Services

Dalton Weinstein is a Hydrogeologist with over five years of experience in water use permitting, minimum flows and levels compliance, and water resource evaluations. He will assist with water supply evaluations, annual report preparation, water use permitting, and well construction and testing projects.

Ronald E. Ewinski | Contamination Assessment and Remediation

Ron Ewinski is a Senior Hydrogeologist with WSP and has more than 28 years of experience working on hydrogeologic projects. Most of his work has been related to contamination assessment and remediation of groundwater and soils. Ron manages most of WSP Tampa’s contamination projects. He is extremely familiar with federal, state and local requirements regarding contamination assessment, monitoring and remediation.

ReNae S. Nowicki, PhD, PWS | Environmental/Ecological Monitoring and Reporting

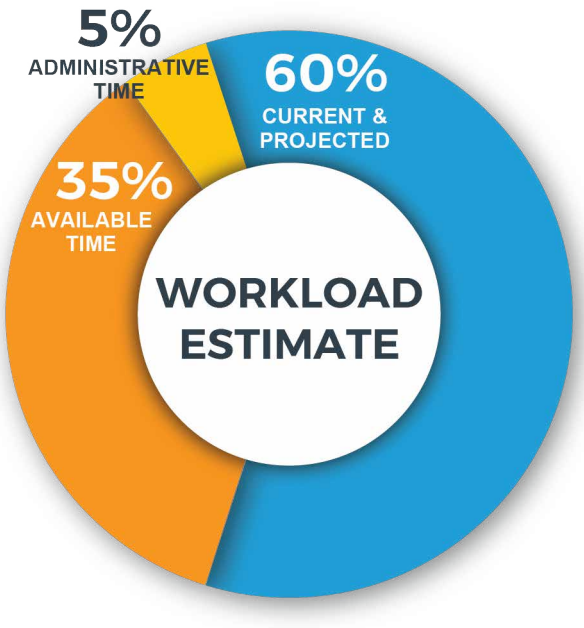
Dr. ReNae Nowicki is a Senior Ecohydrologist, GIS analyst, and database designer with more than 20 years of experience. She specializes in ecohydrologic and wetland impact assessments, primarily for local governments, municipalities, state agencies, and water supply authorities. Dr. Nowicki has routinely managed and performed projects of similar types, including: water use permitting and compliance; Environmental Management Plan development and implementation; environmental impact assessments; surface and groundwater monitoring; aerial imagery interpretation and change analyses; floral and faunal identification; statistical analyses; water quality monitoring and reporting; wetland mitigation monitoring and reporting; and Threatened and Endangered species assessments.

Michael Stevens | Environmental/Ecological Monitoring and Reporting

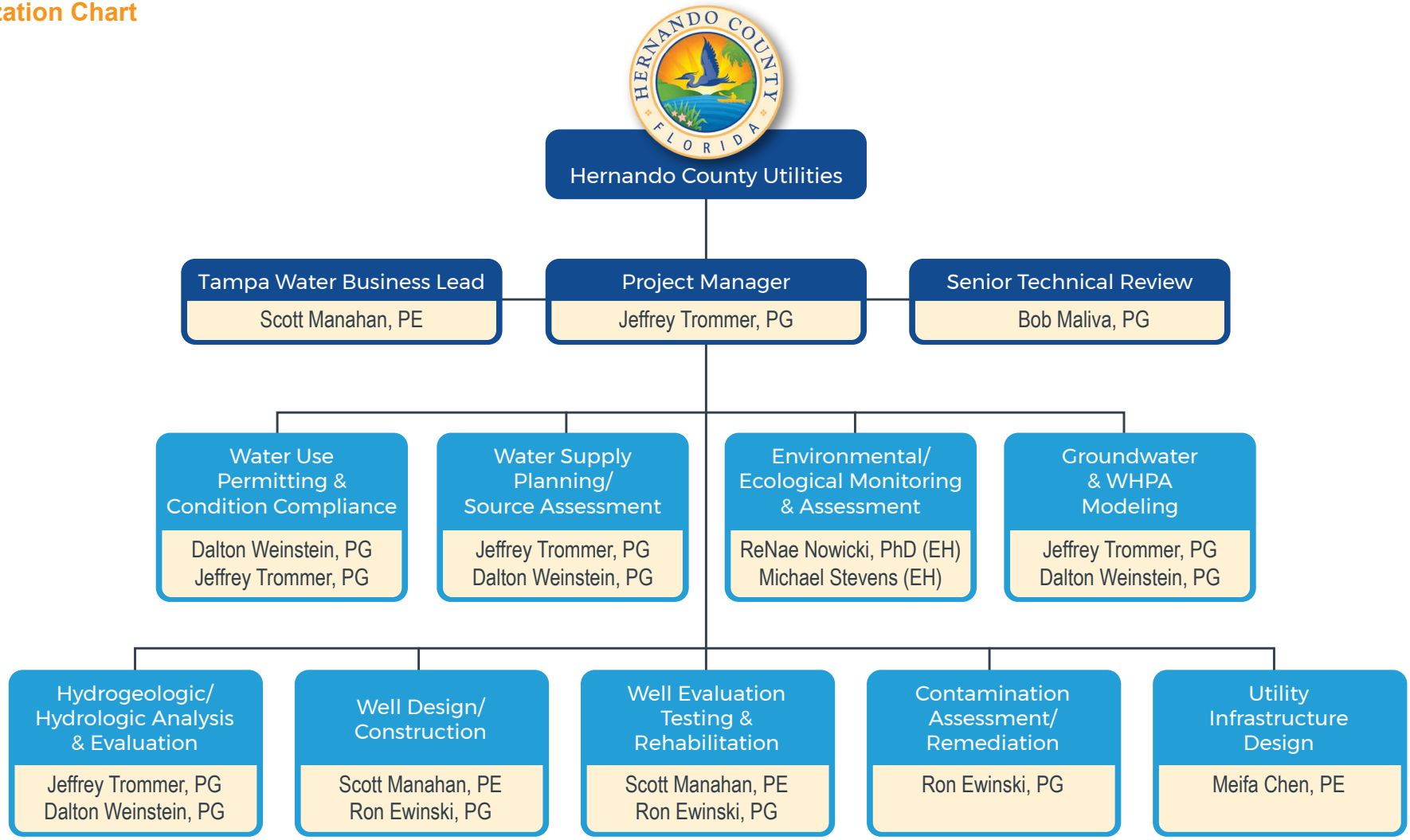
Michael Stevens is a Botanist and Environmental Engineer with 20 years of experience. He has performed biological assessments at thousands of acres of wetland and upland habitats across Florida. His expertise includes: botanical surveys; Threatened and Endangered floral and faunal species surveys; ecohydrologic monitoring; wetland and upland habitat evaluations; ecological and hydrologic restoration; mitigation monitoring and reporting; invasive/exotic species management; jurisdictional wetland delineations; and water quality sampling. He is proficient in the use of GPS collection devices, electronic data recorders, and GIS, and has extensive experience in applying these skills to the implementation of Environmental Management Plan and Water Use Permitting compliance projects.

Project Team Workload - Workload and Availability

Currently, WSP's workload in Tampa is at about 60% to 70% chargeability. This includes time spent on current Hernando County projects. In the foreseeable horizon, the existing workload is not projected to increase significantly due to few large upcoming projects expected within the immediate timeframe. Our projected workload includes continued future work for Hernando County, as the County has provided a stable baseload of work for the past many years. ***In summary, due to our current and projected workload, WSP can readily provide the manpower necessary to meet the requirements of this contract.*** The pie chart to the right shows that our Tampa office has at least 35% of our time available for services beyond our current and projected workload. This will easily allow several staff to be available full-time to projects under this contract.



Organization Chart



Subconsultants
(EH) EcoHydrologix

All staff are WSP personnel unless otherwise noted in parenthesis.

JEFFREY M. TROMMER, PG

Primary Role: Project Manager

Jeff Trommer has extensive experience in hydrogeologic investigations, specializing in water supply development, water use permitting, injection well permitting, construction, and testing, effluent disposal and reuse, groundwater modeling, and regional groundwater resource evaluations. He has worked on many water use permits (WUP), performed impact analysis through groundwater modeling and developed good working relationship with Water Management District staff. Jeff has also prepared several evaluations of the hydraulic and water quality impacts of injection well systems, and the feasibility of developing a reclaimed water Aquifer Storage and Recovery system.

Additional Roles

- Water Use Permitting & Condition Compliance
- Water Supply Planning/Source Assessment
- Groundwater & WHPA Modeling
- Hydrogeologic/Hydrologic Analysis & Evaluation

Firm

WSP USA Inc.

Years of Experience

36

Education

M.S., Geology, University of South Florida, Tampa, Florida, 1987

B.S., Geology, University of Wisconsin, Milwaukee, Wisconsin, 1984

Professional Licenses/ Certifications

Professional Geologist: Florida, 1991 (1315)

Project Experience

Potable Water Master Plan, Hernando County, Florida (2019 - Ongoing): senior hydrogeologist responsible for conducting an evaluation of the existing and projected groundwater sources required to meet the 20-year demand projections for the County. A groundwater flow model was developed to assess potential impacts to minimum flow and level water bodies, including springs, lakes and rivers. Information on existing wells was evaluated to determine whether existing wells could meet projected demands, and where additional wells may be required.

Water Use Permitting, Hernando County, Florida (2015): Detailed hydrogeologic impact analysis reports were prepared in support of application for several public supply WUPs in Hernando County. Three-dimensional groundwater flow models were developed using MODFLOW to evaluate drawdown in the surficial and Upper Floridian aquifers at the proposed permitted quantities. The drawdown information was used to assess potential impacts to adjacent users, wetland levels, and movement of the freshwater/saltwater interface. Well field management plans were developed to minimize drawdown impacts, and a water level monitoring plan was prepared. The most recent WUP renewal included consolidation of six individual WUPs into a single WUP covering all the Utility Departments facilities.

Well Construction, Hernando County, Florida (2018- 2020): project manager for construction services for two supply wells at the Southwest Hernando Well Field and one well at Trilby Crossing. Jeff prepared well construction specifications and assisted with contractor bidding procedures, and managed the oversight of construction and testing activities for the new wells. The recently completed Trilby Crossing well will provide additional supply for the expansion of the Lockhart Road Water Facility.

Glenn Wastewater Treatment Facility Expansion, Hernando County (2017 – 2009): project manager who performed a hydrogeologic evaluation for expansion of the Glenn Wastewater Treatment Facility. The evaluation included a site investigation to collect data needed to calculate the loading capacity of new rapid infiltration basins. A groundwater model was used to calculate the locating rate, which was successfully increased from 0.5 mgd to 3.0 million gallons per day. The groundwater monitoring plan was also revised.

Manatee County Southwest WRF RIB Permitting, Manatee County, Florida (2005): as part of a project to re-permit a portion of the reclaimed water storage ponds as rapid infiltration basins, a groundwater monitoring plan was developed and implemented. Temporary piezometers were installed to define groundwater flow direction, and locations

for four monitoring wells were proposed. Upon approval by the Florida Department of Environmental Protection, the monitoring wells were installed.

City of Dunedin WUP Renewal, Dunedin, Florida (2017): senior hydrogeologist responsible for conducting a detailed hydrogeologic evaluation in support of an application for renewing the WUP. Due to changes in the City's per capita use rate and current growth projections, the City was faced with a significant reduction in permit quantities. Additional information was provided to successfully increase the growth and demand projections. The permit was approved for a 20-year duration.

T. Mabry Carlton Memorial Well Field Chloride Cap WUP Modification, Sarasota County, Florida (2016 – 2019): principal investigator who conducted a statistical evaluation of water quality data from production and monitoring wells to support a proposal to move regulatory chloride caps from production wells to well field monitoring wells. The Well Field Management Plan was revised with the new monitoring plan, and was submitted with an application to modify the WUP. The successful modification provides increase operational flexibility of the well field.

Manatee County: senior hydrogeologic investigator to assist with the expansion of Manatee County's existing East County Well Field by two million gallons per day average annual and four million gallons per day peak month. The increase, which was located outside of the Most Impacted Area (MIA) of the Southwest Florida Water Management District (SWFWMD) Southern Water Use Caution Area was facilitated by a reduction in pumping inside the MIA by transfer of permitted quantity from an agricultural WUP to the East County Well Field WUP. Services included groundwater flow modeling using the SWFWMD's Southern District Model for water use permitting, well design, construction and testing.

Manatee County: principal hydrogeologist of the development, implementation and evaluation of an Aquifer Performance Test of the Intermediate aquifer for Manatee County Utilities at the Erie Road water storage facility. Services included the preparing of a testing program required by the SWFWMD as part of a WUP for the new North County Well Field. Services also included the preparation of well specifications, hiring of a drilling contractor, installation of monitoring equipment, monitoring of the 10-day test and evaluation of the data. The data is being used to assist in final well field design.

City of Clearwater Water Supply and Treatment Master Plan, Clearwater, Florida (2019 – Ongoing): principal investigator and ***project manager*** for water source evaluation of the Master Plan. Activities included a statistical analysis of well field water quality data to project future water quality for the reverse osmosis treatment plants, evaluation of the physical condition of existing wells, and siting and cost estimating of new wells.

Publications and Presentations

- Trommer, J.M., 2016, Indirect Potable Reuse: City of Clearwater's Groundwater Replenishment Program, Florida Water Resources Journal, February 2016.
- Trommer, J.M., 2015, One Water: The City of Clearwater and Groundwater Replenishment, Florida Section American Water Works Association Fall Conference, Orlando, Florida, December 2015.
- Trommer, J.M., 2014, Update on the City of Clearwater's Groundwater Replenishment Program, 14th Annual Aquifer Recharge Conference, Orlando, Florida, September 9, 2014.
- Trommer, J.M., 2014, Potable Reuse: City of Clearwater's Groundwater Replenishment Program, 14th Biennial Symposium on Managed Aquifer Recharge, Orange County California, July 31, 2014.
- Trommer, J.M., 2014, Indirect Potable Reuse, WaterWorld, November 2014.
- Trommer, J.M., and Shoemaker, C., 2004, Southwest Wellfield Hydrogeologic Investigation Highlights Challenges to Water Resource Evaluation in Hernando County, Florida Water Resources Journal, October 2004.
- Trommer, J.M., 2001, The Importance of Water Supply Well Performance Monitoring and Rehabilitation, American Water Works Association Infrastructure Conference, Orlando, Florida, March 2001.

Scott Manahan, PE

Primary Role: Tampa Project Engineer/Lead

Scott Manahan has 31 years of experience in subsurface exploration including hydrologic assessment, well construction, and commercial, remedial, and domestic water treatment. His extensive experience and engineering background have made him a specialist in aquifer performance testing, hydraulic analysis, well construction, wellfield design, and pumping system design. Scott is knowledgeable in project management from preparation of job cost and scope proposals through project development and completion. He is well versed in permitting procedures with the various regulatory agencies and is experienced in the interpretation of geophysical logs and the use of tools needed for the acquisition of hydrogeologic data. His specialty is the design and rehabilitation of public water supply wellfields.

Additional Roles

- Well Design/Construction
- Well Evaluation Testing & Rehabilitation

Firm

WSP USA Inc.

Years of Experience

31

Education

B.S. Petroleum Engineering (with honors), New Mexico

Institute of Mining and Technology, Socorro, New Mexico

Professional Licenses/ Certifications

Professional Engineer: Florida, 1997 (51423)

Project Experience

Lower Hawthorn and Lower Tamiami Well Construction and Testing, Royal Poinciana Golf Club, Naples, Florida: project engineer that directed a turn-key, design-build well construction project for irrigation water supply for a golf course in southwest Florida. The collocated wells tapped a brackish, flowing artesian, aquifer unit and a shallower fresh water aquifer. The wells were tested for yield and water quality and fully equipped with submersible pump, valves, flowmeters, and piping. Prepared a well completion report and submitted permit information to the South Florida Water Management District.

Class I Injection Well at the Southside Wastewater Treatment Plant/Water Reclamation Facility, City of Cape Coral, Florida: project engineer that reviewed well design and assisted with permitting efforts for the additional injection well. Worked with the project team on well specifications and assisted with the bidding and contractor selection process. Directed construction supervision by two resident project representatives as part of a multi-firm project team.

Wellfield Evaluation, Support Services, and Troubleshooting, Collier County, Naples, Florida: project engineer that provided troubleshooting services to diagnose and solve water hammer and other problems in municipal wellfields. Also provided guidance and recommendations to optimize wellfield performance.

Reverse-Osmosis Plant Hydrogeologic Test Program and Wellfield Design, City of Hialeah, Florida: project manager/engineer that directed the design, permitting, and hydrogeologic evaluation of a brackish water wellfield to supply a 10 million gallons per day (MGD; expandable to 17.5 MGD) reverse osmosis plant. Provided wellfield construction observation services and provided specifications and supervision for acid treatment of four wells to improve their yields.

Brackish Water Supply Well Construction and Testing, Seminole Tribe of Florida, Brighton Reservation, Florida: project manager/engineer for the design and construction of two public supply wells tapping the Upper Floridan aquifer at the Brighton Reservation in Glades County, Florida. Turnkey project delivery included installation, testing, and water quality sampling as well as report preparation.

Intermediate Aquifer Evaluation and Testing, Seminole Tribe of Florida, Brighton Reservation, Florida: project engineer that directed well construction, aquifer performance tests, and analyzed drawdown and recovery data to calculate aquifer hydraulic

characteristics. Prepared a summary report regarding the suitability of the Intermediate aquifer as a raw water source for the existing membrane water treatment facility.

South County Regional Water Treatment Plant Wellfield, Collier County, Naples, Florida: project manager that conducted a hydrogeologic test program for wellfield design and permitting purposes. Directed supervision of production well construction and testing and prepared wellfield completion report.

Collier Northeast Regional Water Treatment Wellfield Test Program, Collier County, Naples, Florida: project manager that drilled test wells, conducted aquifer performance testing, collected water quality data, and developed hydraulic and solute transport computer models to design a wellfield to supply a membrane water treatment plant that is planned for construction.

Publications and Presentations

- Maliva, R.G., Manahan, S., Thomas, M., James, S. and Taylor, R. (2022) Challenges and solutions to developing alternative water supplies in Central Florida: Polk Regional Water Cooperative Experiences. Florida Water Resources Journal, February 2022, 73(2): 64-69.
- Maliva, R.G., Manahan, W.S., and Missimer, T.M. (2021) Climate change and water supply: governance and adaption planning in Florida. Water Policy 23: 521-536.
- Arico, Q.L., Kassis, Z.R., Maliva, R.G., Guo, W., Manahan, W.S., and Missimer T.M. (2021). Changes in pumping-induced groundwater quality used to supply a large capacity brackish-water desalination facility, Collier County, Florida: A new aquifer conceptual model. Water, 13, 1951. Doi.org/10.3390/w13141951.
- Maliva, R.G., Autrey, M., and Manahan, S. (2021) Natural contaminant attenuation during reclaimed water aquifer recharge in Destin. Florida Water Resources Journal, April 2021, 16-21.
- Manahan, W.S., Thomas M.F., Heath, G. and Taylor, R. (2019) Regional Approach to Alternative Water Supply Planning and Funding is a Win-Win for Central Florida Stakeholders. Proceeding of the Florida Water Resources Conference (April 2019).
- Maliva, R.G., Manahan, W.S., and Missimer, T.M. (2019) Aquifer Storage and Recovery using Saline Aquifers – Hydrogeological Controls and Opportunities. Groundwater, 58(1), 9-18.
- Maliva, R.G., Guo, W., and Manahan, S., 2016, ASR using non-USDW aquifers: Modeling results and historical experiences. American Groundwater Trust's 16th Annual Conference. Orlando, Florida, September 21-22, 2016.
- Maliva, R.G., and Manahan, W.S., 2015, Groundwater Resources Evaluation in SW Florida – Water Accounting Approach. 8th Annual Southwest Florida Water & Wastewater Exposition, Fort Myers, Florida, September 10, 2015.
- Maliva, R.G., Manahan, S., and Wells, W., 2014, Alternatives to Alternative Water Supplies in Florida: Additional Fresh Groundwater. Florida Section American Water Works Association 2014 Annual Conference, Orlando, Florida, Nov. 30 – Dec. 3, 2014.
- Maliva, R.G., and Manahan, W.S., 2014, Aquifer Storage and Recovery in Texas: Opportunities and Challenges: Proceedings Texas Water 2014, Dallas, Texas, April 14-17, 2014, 7 p.
- Maliva, R.G., and Manahan, W.S., 2013, Desalination concentrate disposal using injection wells: technical challenges: Groundwater Protection Council 2012 Annual Forum, Sarasota, Florida, January 23, 2013.

Bob Maliva, PhD, PG

Primary Role: Senior Technical Reviewer

Dr. Bob Maliva has over 32 years of international research and consulting experience in groundwater resources management, subsurface geology, and fluid flow investigations. Prior to joining WSP, Dr. Maliva was a principal hydrogeologist at Schlumberger Water Services and CDM, and held research positions at Harvard University, the University of Cambridge (England), and the University of Miami. His areas of specialization include the design, permitting and construction of conventional and alternative water supply wells and wellfields, and injection well, aquifer storage and recovery (ASR), and managed aquifer recharge systems. Dr. Maliva is also an expert in water resources evaluations, aquifer characterization, and sedimentary geochemistry, geophysical log interpretation, and aqueous geochemical modeling.

Dr. Maliva is the senior author of five books on various aspects of applied hydrogeology including recent volumes on climate change and groundwater, anthropogenic aquifer recharge, aquifer characterization, and arid lands water management. Dr. Maliva is current a courtesy faculty member at the U. A. Whitaker College of Engineering, Emergent Technologies Institute of Florida Gulf Coast University.

Additional Roles

- N/A

Firm

WSP USA Inc.

Years of Experience

32

Education

Ph.D., Earth Sciences, Harvard University, Cambridge, Massachusetts, 1988

M.A., Geology, Indiana University, Bloomington, Indiana, 1984

B.A., Geological Sciences and Biological Sciences, State University of New York, Binghamton, New York, 1982

Professional Licenses/ Certifications

Professional Geologist: Florida, 1993 (1549)

Professional Memberships

Associate Editor of journal "Groundwater" (published by the National Ground Water Association)

Project Experience

Southeast and West LFA WPFs Polk Regional Water Cooperative, Polk County, Florida (2020-present): hydrogeology technical expert. Design, supervision, and data analysis for two brackish groundwater test well programs, SEAWAT modeling of raw water production wellfield, and design and permitting of concentrate disposal injection well systems.

Nuclear Power Plant Expansion, Florida Power & Light (FPL), Miami-Dade, Florida (2012 - 2017): technical expert responsible for providing technical support and performing an impact analysis for a Class I injection well system that will be used for disposal of cooling water for two new nuclear power plant units. Represented FPL at Nuclear Regulatory Agency hearings.

Reclaimed Water ASR System, Destin Water Users, Inc., Northwest Florida (2008 – 2017): project manager responsible for performing feasibility assessment, designed, permitted, supervised construction, and obtained an operational permit for a groundbreaking ASR system in Florida that stores reclaimed water in a shallow sand-and-gravel aquifer in an environmentally-sensitive area.

Southern Region ASR Project, KAHRAMAA (Qatar General Electricity & Water Corporation), Qatar (2013 - 2017): senior technical expert responsible for preparing environmental impact analysis, assisting with the development of the testing plans, and performing data analysis and interpretations for an ASR project that will strategically store desalinated water as an emergency supply in case of a disruption in the desalination water supply.

Class I Injection Well at the SW WTP/WRF, City of Cape Coral, Florida (2015-2016): project hydrogeologist responsible for assisting with well design and permitting. Provided supervision during construction including all data analysis, preparation of weekly construction summaries, obtained required regulatory approvals for casing seat depths and prepared final construction report.

Ashghal Reclaimed Water Aquifer Recharge Project, Ashghal (Public Works Authority of Qatar), Qatar (2009): senior technical expert responsible for performing environmental impact assessment for first operational large-scale reclaimed water aquifer recharge project in the Middle East.

ASR Test Program and Feasibility Study, Seminole Tribe of Florida, Brighton, Florida (2007): project manager responsible for performing an ASR feasibility investigation and designed and supervised construction of an ASR exploratory well at the Seminole Tribe of Florida Brighton Reservation, which will seasonally store surface water for irrigation use. Advanced borehole geophysical logging was performed to better characterize aquifer heterogeneity.

Floridan Aquifer Wellfield Investigation and ASR Feasibility Study, City of Daytona Beach, Florida (2007- 2008): project manager responsible for designing and supervising aquifer testing program, including three 300 m cores, pump testing, modeling, and performed a feasibility investigation for an ASR system.

Books, Publications, and Presentations

- Maliva, R.G., 2021, Climate Change and Groundwater; Planning and Adaptations for a Changing and Uncertain Future. Springer, Cham, 350 pp.
- Maliva, R.G., 2020, Anthropogenic Aquifer Recharge: Springer, Cham, 861 pp.
- Maliva, R.G., 2016, Aquifer Characterization Techniques: Springer, Berlin, 617 pp.
- Missimer, T.M., Jones, B., and Maliva, R.G., (Eds.) 2015, Intakes and Outfalls for Seawater Reverse-Osmosis Desalination Facilities: Springer, Berlin, 544 pp.
- Maliva, R.G., and Missimer, T.M., 2012, Arid Lands Water Evaluation and Management: Springer, Berlin, 1076 pp.
- Maliva, R. G., and Missimer, T. M., 2010, Aquifer Storage and Recovery and Managed Aquifer Recharge Using wells: Planning, Hydrogeology, Design, and Operation: Methods in Water Resources Evaluation No. 2, Schlumberger Corporation, 578 pp.

Dalton Weinstein, PG

Primary Role: Water Use Permitting & Condition Compliance

Dalton Weinstein is an experienced hydrogeologist responsible for advising clients with accurate information in regard to applications for water use permits (WUP) through the Southwest Florida Water Management District (SWFWMD) and injection well systems through the underground injection section of the Florida Department of Environmental Protection. He is responsible for submitting all necessary information for permit issuance, as well as any submittals required throughout the permit term. These reports require analysis of pumpage, rainfall, water level, and water quality data. Groundwater modeling is included to assess potential impacts to resources and existing legal users. Results of this groundwater modeling are interpreted based on regulations established by the above-referenced agencies. His software skills include COMSOL Multiphysics, Visual Basic, AGMOD, GIS, and Groundwater Vistas. In addition, he is experienced in soil sampling, geophysical logging, rock core logging, Florida Department of Environmental Protection wetland delineation, slug test and pump test, wetland assessment procedure, groundwater sampling, survey with transit level, driver's safety, and well development through airlift and surge block.

Additional Roles

- Water Supply Planning/Source Assessment
- Groundwater & WHPA Modeling
- Hydrogeologic/Hydrologic Analysis & Evaluation

Firm

WSP USA Inc.

Years of Experience

10

Education

M.S., Hydrogeology, Clemson University, South Carolina, 2015

B.S., Environmental Sciences, Skidmore College, New York, 2014

Professional Licenses/ Certifications

Professional Geologist: Florida 2021 (3107)

Project Experience

WUP Modification, Hernando County, Florida: hydrogeologic investigator assisting with the potential increase of Hernando County's consolidated Water Use Permit, as well as adding six new production wells. The potential increase will be based on newly developed demand projections for the county extending the permit term out to 2042. Using the new demand quantity and the addition of new production wells, quantities will be redistributed throughout the service area to best fit the projected demand needs of the county while not causing any potential impacts to existing legal users and environmental features. Services included potable water demand and supply projection calculations and groundwater and flow modeling using the SWFWMD's District Model for water use permitting.

Well Field Water Year 2021 Annual Report, City of Tarpon Springs, Florida: hydrogeologic investigator responsible for submitting the Annual Hydrologic Well Field Report to the SWFWMD on behalf of the City of Tarpon Springs. The report addresses all of the elements identified in special condition: Hydrologic Analysis, Well Field Operation, Water-Quality Monitoring, Water-Level Monitoring, Capital Improvement Program Status, Water Treatment Efficiency, Investigation of Complaints, Domestic Water Supply Monitoring, Chloride Concentration Guidance, Action and Trigger Levels, and Well Field Management Updates. Services included the evaluation and interpretation of pumpage, water level, water quality, and rainfall data.

Verna Well Field Water Year 2021 Annual Report, City of Sarasota, Florida: hydrogeologic investigator responsible for submitting the Annual Hydrologic Well Field Report to the SWFWMD on behalf of the City of Sarasota. The report addresses all of the elements identified in special condition: Water Use, Water Levels, Water Quality, Investigation of Complaints, and Well Field Management Updates. Services included the evaluation and interpretation of pumpage, water level, water quality, and rainfall data.

WUP Modification, Manatee County, Florida: hydrogeologic investigator assisting with the potential increase of Manatee County's consolidated WUP. The potential increase, which is located outside of the Most Impacted Area (MIA) of the SWFWMD Southern Water Use Caution Area, is facilitated by a reduction in ground water pumping inside the MIA

by transfer of permitted ground water quantities from agricultural WUPs to the County's WUP. Services included Groundwater Replacement Credit calculations, potable water demand and supply projection calculations, and groundwater and flow modeling using the SWFWMD's District Model for water use permitting for a Net Benefit Analysis.

Class I injection Well Annual Summary Report, City of Clearwater, Florida: hydrogeologic investigator assisting with the Annual Summary Report for the Class I Concentrate Injection Well at the Reverse Osmosis Water Treatment Plant No. 2 (RO2). The report summarizes the preceding year of operations (January 1 through December 31) including all injection well system monitoring data in both graphic and tabular formats, a summary of system specific injectivity efficiency and pressure fall-off test results, and proposed changes (if any) to the monitoring program. Services included the evaluation and interpretation of injection wellhead pressure, flow rate, and volume, water level, and water quality.

WUP Renewal, Tampa Bay Water, Tampa Bay, Florida: hydrogeologic and environmental investigator assisted in the renewal of the Tampa Bay Water Consolidated WUP No. 200011771.002. This renewal involved the evaluation of the Northern Tampa Bay Recovery Assessment, as well as all other information required by the WUP renewal application process. Services included evaluation and interpretation of pumpage, water level, water quality, vegetative, and rainfall data, as well as interpreting results of GIS and groundwater and flow modeling using the SWFWMD's District Model for water use permitting.

WUP Compliance Lead, Tampa Bay Water, Tampa Bay, Florida: hydrogeologic and environmental investigator lead in review and analysis of all required reports and data entry of several WUPs for Tampa Bay Water. The following required reports varied in frequency from monthly to quinquennially included: environmental monitoring reports, well field reports, hydrobiological and hydrological river assessments, water quality reports, and vegetative monitoring reports, as well as dry well and community complaints. Services included evaluation and interpretation of pumpage, water level, water quality, vegetative, and rainfall data, as well as, interpreting results of GIS and groundwater and flow modeling using the SWFWMD's District Model for WUP.

Ron Ewinski

Primary Role: Contamination Assessment/Remediation

Ron Ewinski has extensive experience in contamination assessment and remediation of both chlorinated solvent and petroleum hydrocarbon-impacted soil and groundwater including the coordination and oversight of contamination assessment field activities, groundwater pumping tests, data reduction and interpretation, operation, maintenance and monitoring of soil and groundwater remedial systems, Phase I and II environmental site assessments, report preparation, preparation of site specific Quality Assurance Project Plans and Health and Safety Plans and oversight of petroleum storage tank installations and closures. His experience in water supply development projects includes oversight of drilling and well construction activities, the collection and description of lithologic samples, oversight of geophysical logging and pumping tests, and permit preparation for potable public supply wells, analysis of hydrologic data, modeling, well complaint investigations, and well mitigation services.

Additional Roles

- Well Design/Construction
- Well Evaluation Testing & Rehabilitation

Firm

WSP USA Inc.

Years of Experience

42

Education

B.S., University of South Florida, Florida, 1994

Professional Licenses/ Certifications

N/A

Project Experience

Republic Services Cedar Trail Landfill Groundwater Monitoring, Hernando County, Florida: geologist who completed the Site Assessment Report to delineate vertical and horizontal extent of vinyl chloride groundwater plume and establish background water levels for metals being monitored. Ron provided oversight of a soil vapor survey associated with volatile organics impacts to groundwater and eventually obtained site closure from Florida Department of Environmental Protection. WSP conducted an assessment and monitoring of groundwater contamination at a municipal sports facility built over an old landfill. Contaminants were metals, volatile organics and chlorinated solvents. Prepared and implemented natural attenuation groundwater monitoring plan.

Water Quality Evaluation Report, City of Tarpon Springs, Florida: hydrogeologist that assisted with field operations including supervision of installation/lithologic logging of test wells and performance of drawdown tests. WSP managed a hydrogeologic evaluation for a new wellfield at Cone Ranch that included the installation of three test wells and several shallow monitoring wells. Three step drawdown tests and three, 14-day aquifer performance tests were performed. The aquifer test data were analyzed to derive aquifer characteristics for use in subsequent wellfield design activities.

As-Needed Hydrogeological Services, Tampa Bay Water/City of Tarpon Springs, Florida: principal field investigator for hydrogeologic services that included the use of ground-penetrating radar, installation of soil borings, core sampling and analysis, aquifer testing, hydrologic monitoring, groundwater flow modeling, particle tracking and solute transport modeling. WSP is performing as-needed hydrogeologic services on a combination surficial rehydration/artificial recharge project for Tampa Bay Water at a potable supply well field. A risk assessment was required because the sources of water for recharge are a canal that captures stormwater runoff and reclaimed water.

Groundwater Monitoring Plan, Belleair Country Club, Belleair, Florida: geologist who monitored sites where appropriate, and new sites proposed where necessary. Piezometers were installed to determine groundwater flow direction to help select new/revised monitoring well locations. WSP is developing a groundwater monitoring plan for the County's Master Reuse System permit. The initial plan was developed using representative sites concept for each of the reuse land use types (residential, golf course, and agricultural) for each

water reclamation facility. A follow-up plan was submitted, with maps of each site showing groundwater flow direction and proposed monitoring well locations.

Eldridge-Wilde Well Field Testing, Pinellas County, Florida: responsible for assisting in field investigations for project hydrogeologic services. WSP evaluated and tested 55 wells at the Eldridge-Wilde Well Field. Activities included removal of well houses and pumps, scrubbing and cleaning of well casings, well disinfection, pumping tests, geophysical logging and downhole video surveys for determining the conditions of the wells. WSP recommended well modifications, well abandonment, and well field operation and management practices.

Landfill Groundwater Monitoring, City of Tarpon Springs, Florida: project geologist who installed 23 monitoring wells to depths ranging from 20 to 40 feet below land surface. Collected groundwater samples and analyzed for a number of cations, anions and nutrients. Samples were analyzed for the analysis of isotopic nitrogen ratios (15N/14N). Slug tests conducted on monitoring wells to establish the hydraulic conductivity. Data was compiled, reduced, analyzed, and interpreted so that computation of surficial aquifer water and nutrient fluxes to the lake could be performed. This was accomplished from a form of a model that adequately depicts nutrient flux to the lake. WSP performed groundwater monitoring to refine nutrient loading estimates to the lake and to evaluate the effects of nearby septic tanks on water quality.

Groundwater Monitoring Plan, Brevard County, Florida: field technician who assisted in site selection and installation of piezometers to determine groundwater flow direction to help select new/revised monitoring well locations. Submitted a follow-up plan with maps of each site showing groundwater flow direction and proposed monitoring well locations. WSP developed a groundwater monitoring plan for the County's Master Reuse System permit. The initial plan was developed using representative sites concept for each of reuse land use types (residential, golf course, and agricultural) for each water reclamation facility. Monitored sites were used where appropriate, and new sites proposed where necessary.

Groundwater Replenishment Project, Florida Department of Environmental Protection/City of Clearwater, Florida: assisting with field investigations in performing a feasibility and field testing study on Groundwater Replenishment for the City of Clearwater. The project consists of indirect recharge using purified waste water is to enhance the aquifer conditions for supplementing groundwater withdrawals to meet the City's potable supply demands. The feasibility study included the development of a calibrated groundwater flow model to simulate the hydrologic system and the use of MODPATH software for particle tracking was developed for Florida Department of Environmental Protection underground injection control permitting requirements. Underground injection control permits were obtained for the construction of the class V recharge wells and Class I concentrate disposal well.

East County Well Field Expansion, Manatee County, Florida: field hydrogeologist to assist with the expansion of Manatee County's existing East County Well Field by two million gallons per day average annual and four million gallons per day peak month. The increase, which was located outside of the most impacted area of the Southwest Florida Water Management District Southern Water Use Caution Area, was facilitated by a reduction in pumping inside the most impacted area by transfer of permitted quantity from an agricultural water use permit to the East County Well Field water use permit. Services included groundwater flow modeling using the Southwest Florida Water Management District's Southern District Model for water use permitting, well design, construction and testing.

North County Well Field Intermediate Aquifer System, Aquifer Test, Manatee County, Florida: field hydrogeologist of the development, implementation and evaluation of an Aquifer Performance Test of the Intermediate aquifer for Manatee County Utilities at the Erie Road water storage facility. Services included the preparing of a testing program required by the Southwest Florida Water Management District as part of a water use permit for the new North County Well Field. Services included the preparation of well specifications, hiring of a drilling contractor, installation of monitoring equipment, monitoring of the 10-day test and evaluation of the data. The data is being used to assist in final well field design.

Southwest Water Reclamation Facility, Rapid Infiltration Basins Permitting, Manatee County, Florida: as part of a project to re-permit a portion of the reclaimed water storage ponds as rapid infiltration basins, a groundwater monitoring plan was developed and implemented. Supervised the installation of piezometers to define groundwater flow direction, and locations for four monitoring wells were proposed. Upon approval by the Florida Department of Environmental Protection, supervised installation and development of the monitoring wells.

ReNae S. Nowicki, PhD, PWS

Primary Role: Environmental/Ecological Monitoring & Assessment

ReNae Nowicki has 27 years' experience providing ecological and water resource impact assessments for public water suppliers. She routinely manages and performs environmental impact and MFL assessments, develops Environmental Management Plan (EMP), assists with water use permitting (WUP) and compliance projects, and conducts ecohydrologic monitoring. Her client list includes:

- Cities of Clearwater, Oldsmar, Sarasota, and St. Petersburg
- Counties of Citrus, Hernando, Hillsborough, Manatee, and Sarasota
- Florida Government Utility Authority, Florida Water Services, and Tampa Bay Water
- Southwest Florida and Suwanee River Water Management Districts (SWFWMD and SRWMD)
- Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Comission (FFWCC), US Environmental Protection Agency, and US Fish and Wildlife Service

Additional Roles

- N/A

Firm

EcoHydrologix

Years of Experience

27

Education

PhD, Geology/Ecohydrology, University of South Florida, School of Geosciences

MEM, Resource Ecology, Duke University, Nicholas School of the Environment

B.S., Biology, Saint Leo College

Professional Licenses/ Certifications

N/A

Project Experience

EMP Development and Implementation, Florida: Dr. Nowicki has been developing and implementing EMPs for WUP projects since 1999. In the development of EMPs, she routinely performs: GIS analyses to identify vulnerable or potentially impacted wetlands; aerial imagery interpretation to understand historical ecohydrologic patterns andchange; and field reconnaissance to confirm suitable monitoring stations. In implementing EMPs, she: establishes Normal Pool/Historic Wetland Edge elevations, evaluates soil conditions, establishes transects, surveys vegetation (including rare species) and wildlife; and performs ecohydrologic monitoring. She also designs custom databases, performs spatial and statistical analyses, and develops annual reports. She has performed this work for the following water supply projects, including the last 23 years for Hernando County and its predecessors (work performed as project manager in italics):

- *Hernando County Water System*, Hernando County
- *West Hernando Dispersed Wellfield*, Hernando County
- *East Hernando Dispersed Wellfield*, Hernando County
- *Sugarmill Woods Wellfield*, Citrus County
- JB Starkey and North Pasco Regional Wellfields, Pasco County
- *City of Oldsmar Wellfield*, Hillsborough County
- *Clearwater Wellfield*, Pinellas County
- Cone Ranch Property, Hillsborough County
- East County Wellfield, Manatee County
- *Verna Wellfield*, Sarasota County

West Hernando Hydration Plan, Hernando County, Florida: wetland ranking and prioritization for mitigative hydration. Site assessment of ecological condition, significance, degree of impact from land surface alterations versus groundwater production, and feasibility of hydration. Nearly 1,500 wetlands (50,000 acres) were initially assessed for candidate

site suitability. Interpretation of historical (1944–1974) and recent (1982-2007) aerial imagery excluded sites highly impacted by other causes. 158 wetlands were selected to evaluate as candidate sites via: analysis of historic wetland hydration and condition, hydrologic and rainfall data, and ground-truthing.

Geophysical Assessment of Sandhill/Xeric Wetland and Lake Types, University of South Florida for SWFWMD, Florida: wetland site-selection, geophysical application field support (electromagnetic resistivity and ground-penetrating radar), data interpretation, and report development to determine the hydrogeology of six wetlands and adjacent uplands.

Development of a Sandhill Wetland Assessment Procedure, SWFWMD, Florida: spatial and non-spatial data compilation, custom database development, field evaluation, and statistical analysis to assess: wetland-aquifer water level relationships; ecological change; stage prediction via Rainfall Decay method; vegetative chemistry preferences; water quality sampling/characterization; bathymetry/inundation; and landscape development.

MFL Analysis of Hydric Soil Indicators, HSW for SWFWMD, Florida: data compilation and statistical analyses to determine the efficacy of hydric soil indicator type and depth to predict wetland health.

MFL Assessment of Horse and Charlie Creeks, HSW for SWFWMD, Florida: field assessments to characterize vegetation and hydrologic indicators along transects for MFL determination.

Five-Year Wetland Study, SWFWMD, Florida: field assessments at scores of Tampa Bay wetlands to assess regional wetland health over time as MFLs are developed and a wetland recovery plan implemented.

Diagnostic Sediment and Vegetation Survey within the Tsala Apopka Chain of Lakes, FFWCC, Florida: project manager and ***team scientist*** performing: data and aerial imagery compilation and review; remote sensing oversight for tussock characteristics and sediment depths; ground-truthing; area and volume calculations; and report and map preparation. Results were intended to assist in the planning and removal of undesirable lake sediment and vegetation.

Characterization of Hydrology, Wetland Vegetation Communities, and Hydric Soils, SWFWMD, Florida: field assessments along transects at the Middle Peace and Weeki Wachee Rivers for MFL determination.

Candidate Sites Evaluation Study (CSES), Tampa Bay Water, Florida: multi-phased, 3500-wetland project to determine degree and extent of wellfield-related wetland stress. Dr. Nowicki performed wetland field assessments, database development, GIS, and imagery analysis to detect both wellfield and non-wellfield related impacts.

Verna Wellfield Land Management, City of Sarasota, Florida: ecological condition assessment and recommendations for long term land management (e.g., timber harvesting, prescribed burns and exotic/invasive species management) to restore habitat structure and function and maintain and encourage rare wildlife utilization.

Hi-Hat Wellfield Mitigation and Restoration, City of Sarasota, Florida: assessment of a large wetland mitigation area to recommend short-term habitat improvement techniques.

Objective-Based Vegetation Monitoring, FFWCC, Florida: intense field sampling at thousands of points across 11 central Florida Wildlife Management Areas to measure plant response to land management treatments (e.g., controlled burns, herbicides, roller chopping) at sandhill, scrub, and mesic flatwood habitats. Sampling included: longleaf pine basal area; non-pine density; overstory cover; subcanopy counts and dbh measurements; shrub stem counts/height/dbh measurements; saw palmetto density/cover; and herbaceous species cover.

Mitigation Monitoring and Reporting for the Big Ditch Creek Mitigation Area, HSW Engineering for CFI Industries/Tampa Bay Water, Plant City, Florida: ecological monitoring of vegetation, soils, hydrologic indicators, disturbance, and stress indicators to assess potential recovery at two forested wetlands located on the CF Industries property in Plant City, Florida. Mitigation monitoring and reporting for East Pruitt Mitigation Area, Tampa Bay Water. Documentation of ecohydrologic conditions and establishment progress at wetland creation (60+ acres) and upland restoration (100+ acres) sites at the East Pruitt Mitigation Area. Dr. Nowicki performed ecological monitoring (planted and invasive species presence, abundance and growth), GIS, database development, and quality control.

Michael Stevens

Primary Role: Environmental/Ecological Monitoring & Assessment

Michael Stevens is a botanist and environmental engineer with 20 years of experience. Michael has performed biological assessments at thousands of acres of wetland and upland habitats across Florida. He is experienced in: botanical surveys, Threatened and Endangered species surveys, hydrologic monitoring, upland and wetland habitat evaluations, ecological and hydrologic restoration, mitigation monitoring and reporting, invasive/exotic species management, jurisdictional wetland delineations, water quality sampling, and sediment and erosion control inspections. He also is proficient in environmental permitting, the use of GPS collection devices, electronic data recorders, and GIS.

Additional Roles

- N/A

Firm

EcoHydrologix

Years of Experience

20

Education

M.E., Environmental Engineering, University of Florida (UF), 2000

Graduate Certificate, Wetlands, UF, 2000

BS, Environmental Engineering, UF, 1998

Professional Licenses/ Certifications

N/A

Project Experience

Verna Wellfield Environmental Monitoring, City of Sarasota, Florida: ecological condition assessments were performed using the 1999 WAP method at isolated wetlands associated with the Verna Wellfield. Plant species cover, composition, and zonation were documented along transects extending from the historical wetland edge to the wetland interior. Soil conditions and signs of fire, disturbance, and drainage also were recorded. Incidental wildlife observations were noted during the monitoring events. Assessments were performed semi-annually in support of the City's EMP and in compliance with the City's Water Use Permitting (WUP). While impacts were noted at some of the wetlands, they were attributed to cattle grazing and drainage modifications and not groundwater production. For lack of production-related impacts and the limited potential for impacts due to the effective confinement of the Upper Floridan aquifer in the area, ecological monitoring and reporting was discontinued by the South West Florida Water Management District.

Georgia Pacific Wellfield Wetland Monitoring Program, Jones Edmunds and Associates, Florida/Georgia: established wetland monitoring sites and conducted vegetation, soil, and topographic survey in four wetland systems in conjunction with WUP requirements set forth by the St. John's River Water Management District (SJRWMD). Transect points representing the beginning and end of each vegetation sub-community were identified in each wetland. Within each vegetation community, soils were characterized by describing each soil profile, soil horizons, horizon thickness, and color of soil horizons. A list of vegetation within each vegetation community was developed, and ground elevations of points within each vegetation community were surveyed.

Consumptive Use Permit Monitoring, Murphree Wellfield, Gainesville Utilities, Gainesville, Florida: established appropriate wetland monitoring sites and conducted vegetation, soil, and topographic survey in four wetland systems in conjunction with WUP requirements set forth by the SJRWMD. Transect points at start/end of each vegetation sub-community were identified in each of the four wetlands. Within each vegetation community, soils were characterized by describing soil profile, soil horizons, and horizon thickness. A botanical inventory within each vegetation community was reported, and ground elevations of points within each community were surveyed.

Regional Water System Environmental Assessment, East Putnam County, Florida: vegetation and wildlife surveys of 152-acre and 333-acre potential wellfields, transmission lines and 12.2-acre booster pump station sites. Concurrently investigated secondary hydrologic impacts and mitigation to an adjacent state park with sensitive wetland seepage systems in conjunction with SJRWMD and The Nature Conservancy. Coordinated contact

with Florida Fish and Wildlife Conservation Commission (FFWCC), DHR, US Fish and Wildlife Services, US Environmental Protection Agency, Natural Resources Conservation Service, Department of Community Affairs, State Clearing House, and archeological surveys. Provided GIS figures of site location, aerials, wetlands, Federal Emergency Management Agency, soils, and present and future land uses.

Mitigation Monitoring and Reporting for the Big Ditch Creek Mitigation Area, HSW Engineering for CFI Industries, Plant City, Florida: ecological monitoring of vegetation, soils, hydrologic indicators, disturbance, and stress indicators to assess potential recovery at two forested wetlands located on the CF Industries property in Plant City, Florida.

Habitat Restoration Specialis, Florida Department of Environmental Protection, Florida: invasive and exotic plant identification, field reconnaissance, and species removal utilizing chemical and non-chemical methods across 11 Florida conservation areas. Rare plant seed collection and propagation for restoration also accomplished. GPS units heavily utilized in remote areas.

Aucilla Area Regional Solid Waste Facility Wetland Mitigation Annual Monitoring Report, Greensville, Florida: Aucilla Area Solid Waste Photo-documentation and field monitoring of 6.90-acre mitigation wetland system via four 200' by 20' transects. Planted trees were assessed for survival and growth. Percent cover of herbaceous species also were estimated in five, 1-m square plots along each transect. Results were reported to the Suwanee River Water Management District and US Army Corp of Engineers.

Sweetwater Branch Urban Stream Restoration, City of Gainesville, Florida: conceptual design engineer responsible for: stream morphological investigations; investigation of water quality issues inclusive of riparian wetlands, baffle box technology and geotextile erosion control blanket selection; hydrologic modeling utilizing HEC-RAS analysis and Modified Rational Method, plant selection, and neighborhood association and permit meetings.

V***erna Wellfield Land Management, City of Sarasota, Florida:*** ecological condition assessment and recommendations for long term land management (e.g., timber harvesting, prescribed burns and exotic/invasive species management) to restore habitat structure and function and maintain and encourage rare wildlife utilization.

Hi-Hat Wellfield Land Management and Restoration, City of Sarasota, Florida: assessment of large wetland mitigation area to recommend short-term habitat improvement techniques. Aerial imagery assessment, field investigation, and recommendations report development.

Objective-Based Vegetation Monitoring, FFWCC, Florida: field evaluations of plant response to management (e.g., controlled burns, herbicides, roller chopping). Fieldwork included: longleaf pine basal area; non-pine density; overstory cover; subcanopy counts/dbh measurements; shrub stem counts, height/dbh measurements; saw palmetto density/cover; and herbaceous species, wiry graminoid, exotic/weedy species cover.

Botanical Surveys and Investigations, FFWCC Upland Habitat Restoration Research Division, Florida: surveyed habitats across Florida on restoration and reference donor sites. Investigated: Native Ground Cover Restoration (NGCR), cattle grazing impact studies, fire suppression and Objective Based Vegetation Monitoring programs. Consulted and trained area biologists and land managers. Primary author of Biological Monitoring Methods of Fauna for NGCR sites; performed biological monitoring at 16 Wildlife Management Areas.

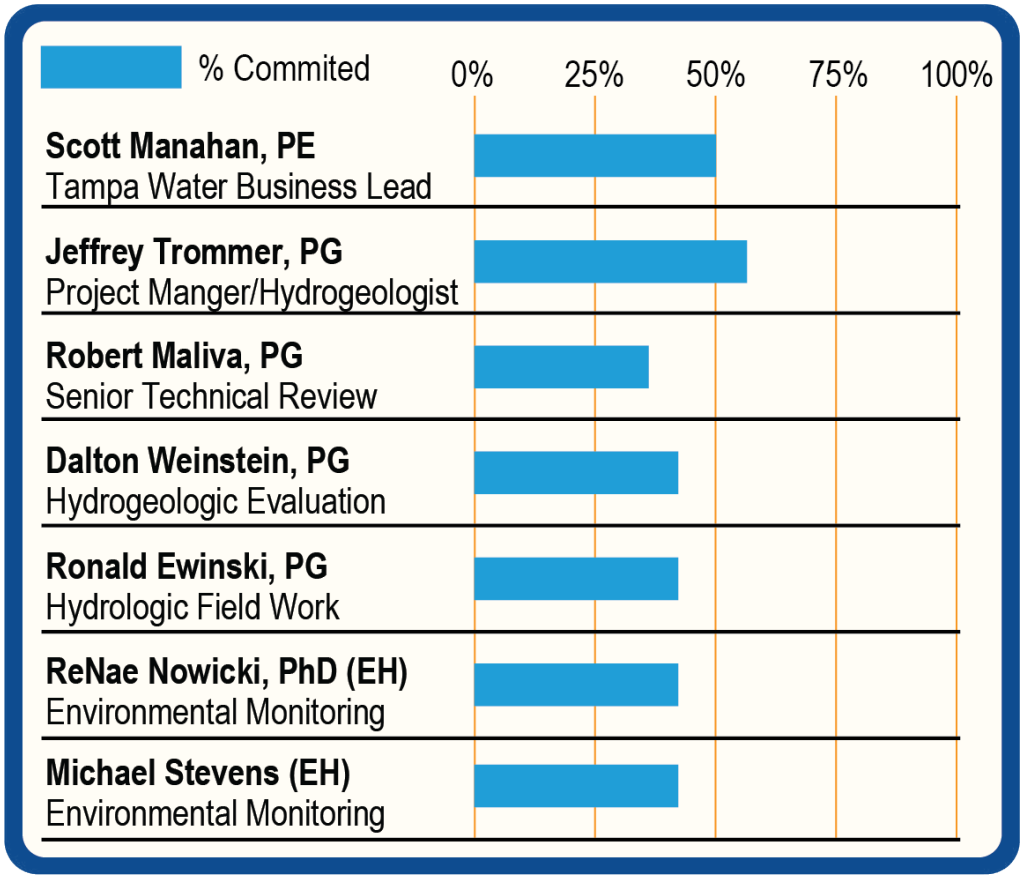
Fulwood Road, Putnam County, Florida: authored SJRWMD Environmental Resource Permit (ERP) application for a litigation project to ameliorate flooding problems from land use alterations. Project responsibilities include coordinating efforts between parties, made design modifications to minimize erosion and sediment issues, conducted wetland delineation and determine mitigation alternatives.

Business Park Environmental Assessment and ERP, Putnam County, Florida: conducted environmental assessment and prepared Section E SJRWMD ERP. Addressed land use, wetlands, flora and fauna, wetland mitigation plan, listed species, soils, potential hydrologic impacts, determination of Seasonal High Water and developed GIS figures.

Current Work Commitment

As shown on p. 11, WSP has existing work commitments that consume less approximately 60% of the Tampa offices time. The WSP personnel for this contract have 50% to 60% of their respective time available, as shown on the following chart, to assist the County on this contract. We are available to begin work immediately upon execution of an Agreement and Notice to Proceed. Based on our presence in Florida and the described WSP team resources, Hernando County can be assured of our technical depth and ability to successfully complete this project on schedule.

KEY STAFF CURRENT COMMITMENT THROUGH DECEMBER 2022



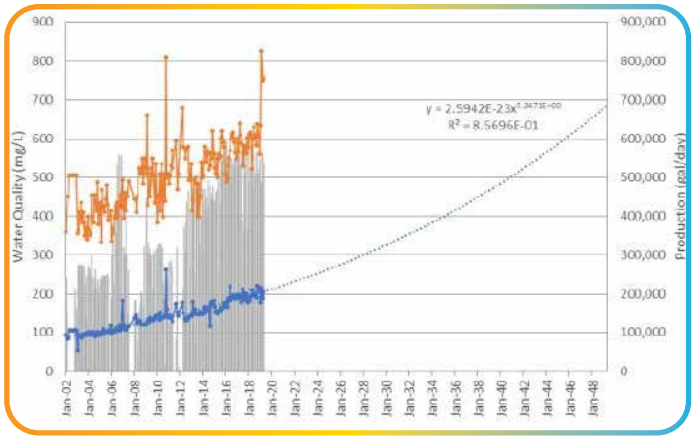
SECTION C – PAST EXPERIENCE

Following is a list of five projects performed for other clients that are of similar size and scope as the services required for this contract.

Water Master Plan

Clearwater, Florida

WSP implemented the source evaluation tasks for the City's new 30-year Water Master Plan (Master Plan) to plot the course of the City's water supply, treatment and key distribution systems for the next 30 years. The work associated with the Master Plan included evaluations of hydrogeologic conditions within the City service area, raw and finished water systems for future water supply scenarios, water treatment facilities, wellfields, and groundwater replenishment. WSP performed a statistical analysis of historical water-quality data to project raw water quality from each of the City's three well fields over the planning period. Sites for additional wells were evaluated to provide the projected quantities and water quality to meet the design capacities of the current and projected water treatment facilities. The water-quality and quantity projections were used to develop options for upgrades of existing facilities, new facilities, and interconnection of well fields to most cost-effectively meet future demands. The Master Plan included planning level costs that were used to establish water supply and treatment system capital improvement projects to aid in the City's budgeting efforts.



Client: City of Clearwater

Reference: Kaylynn Price

Address: 100 S. Myrtle Ave., #220 Clearwater, FL 33756

Phone: 727.562.4773

E-mail: Kaylynn.Price@MyClearwater.com

Time Period: 2019 - Ongoing

Project Budget: $300,000

Completed on Budget: Currently on schedule and budget

Primary Team Members: Jeff Trommer, Ron Ewinski, Dalton Weinstein

Role: Subconsultant

Project Highlights:

- Brackish Groundwater Supply Development.
- Well Evaluation, Maintenance, and Rehabilitation.
- Well Field Management.

South Hillsborough Wellfield via South Hillsborough Aquifer Recharge Project (SHARP) Credits Feasibility Study

Hillsborough, Florida

The South Hillsborough Wellfield via SHARP Credits is one of three water supply projects identified in the Tampa Bay Water 2018 Long-Term Master Water Plan that were selected for the feasibility study phase. The South Hillsborough Wellfield is a proposed wellfield located in the Balm area of southern Hillsborough County. WSP is the prime consultant for a team that implemented the feasibility study which included the following components:

- Evaluate permitting requirements.
- Prepare conceptual design of supply wells, wellfield collection main, and water treatment plant.
- Define capital and operation and maintenance cost for the conceptual design.
- Assess property acquisition needs.
- Develop and implement an initial public information program.

The proposed wellfield is in the Southern Water Use Caution Area MIA. Southwest Florida Water Management District (SWFWMD) rules require that a Water Use Permit (WUP) for a new groundwater withdrawal that causes new drawdown impacts within the MIA must utilize a Net Benefit strategy to offset the drawdown and provide an additional 10 percent of the drawdown as recovery in the MIA. This project will utilize the Mitigation Plus Recovery Net Benefit strategy, with recharge of the Upper Floridan Aquifer (UFA) via Hillsborough County's SHARP reclaimed water recharge wells as the mitigation method.

WSP performed the net benefit analysis modeling to determine the permittable withdrawal from the proposed wellfield based on 10 million gallons per day of SHARP recharge. WSP also prepared the conceptual design of wells, pumps, and the wellfield collection piping system. The team prepared the conceptual design of the water treatment facility, and a capital and operation and maintenance cost estimate for the proposed facility.

Client: Tampa Bay Water

Reference: Danielle Keirsey

Address: 2575 Enterprise Road Clearwater, FL 33763

Phone: 727.796.2355

E-mail: dkeirsey@tampabaywater.org

Time Period: 2021 - 2022

Project Budget: $938,000

Completed on Budget: Completed on budget and schedule

Primary Team Members: Jeff Trommer, Scott Manahan, Robert Maliva, Meifa Chen

Role: Prime

Project Highlights:

- New Groundwater Supply in Southern Water Use Caution Area Using Net Benefit Credits.
- Net Benefit Impact Analysis Modeling.
- Multi-Discipline Feasibility Study.

T. Mabry Carlton Memorial Well Field Chloride Cap Modification

Sarasota County, Florida

WSP performed an evaluation of water quality and water level data collected by Sarasota County Utilities Planning from production and monitoring wells at the T. Mabry Carlton Jr. Memorial Well Field. The evaluation was performed to meet the requirements of Special Condition No. 8 of WUP No. 20008836.013, in which chloride trigger levels are assigned to each production well, and the measures to be taken if a well exceeds its chloride trigger level are defined. There are currently eight productions with chloride concentrations that exceed their respective chloride trigger levels.

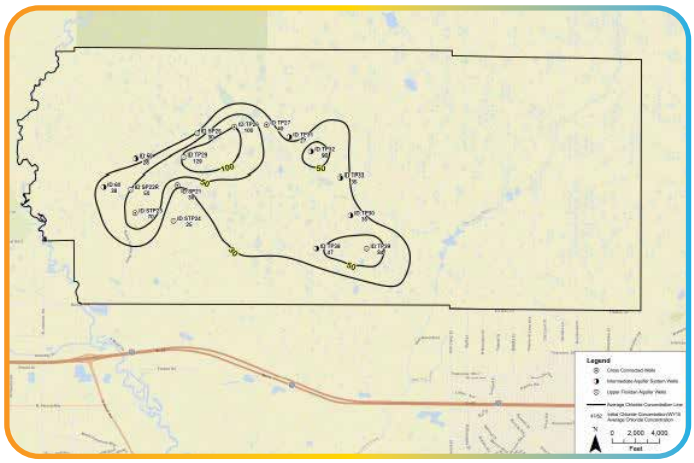
This evaluation includes a trend analysis of monthly water quality in the production wells using data from 1995 through July 2016 and quarterly water quality data over the various periods of record from the monitoring wells. Well field total and individual well production data were compared with water quality data and daily monitoring well water level data to assess the effects of production on water levels and water quality in the well field. Well construction and hydrogeologic information were reviewed to assess the effect of well depth and producing aquifers on water quality in each well. These relationships were used to determine the potential mechanisms for the chloride increases and propose an appropriate alternative chloride trigger level plan.

The well field contains 16 wells located primarily on the western half of the property. The wells have a range of casing and total depths that dictate which aquifer(s) the well is open to and produces water from. This affects both the productivity and the water quality for each well.

There are currently 34 dedicated monitoring wells used for water quality and/or water level monitoring. Nineteen of the wells are used for water quality and water level monitoring wells in the Intermediate aquifer system (IAS) and UFA. An additional 15 wells are monitored for water level only in and around the well field.

The water quality data evaluation showed several inconsistencies in water-quality trends among the production wells. Both UFA wells and IAS wells with increasing chloride trends above the trigger level are adjacent to wells similarly constructed that do not have increasing trends. This suggests that very localized hydrogeologic conditions, such as vertical fractures to deeper zones, occurring at some wells or the areal water quality variations due to poor flushing in areas of the IAS. The data trends are also inconsistent in response of chloride concentrations to changes in production. Chloride concentrations leveled out or decreased slightly in all of the UFA wells after production was reduced at the end of 2009. However, chloride concentrations in several of the IAS wells leveled off during the period of highest production (2005 through 2009), then increased dramatically after production was reduced in 2010.

A new Well Field Management Plan was developed that included developing new chloride trigger levels at the monitoring wells. This was submitted to the SWFWMD and a meeting with them took place to discuss it. The SWFWMD looked favorably on this approach and approved the modification of the WUP to change the chloride trigger levels to the monitoring wells. Finally, we provided the County with a database for the well field hydrologic data. This database included Excel spreadsheets containing water quality, water levels and pumpage for each well in the well field. The database was developed in a way that makes it easy for County staff to manage and use the data.



Client: Sarasota County Public Utilities Planning

Reference: Cliff Harrison, P.G.

Address: 100 S. Myrtle Ave., #220 Clearwater, FL 33756

Phone: 941.677.2762

E-mail: harriso@scgov.net

Time Period: 2016 - 2019

Project Budget: $117,350

Completed on Budget: Completed phases were completed on schedule and budget

Primary Team Members: Jeff Trommer, Scott Manahan

Role: Prime

Project Highlights:

- Revision of Monitoring Plan to allow greater operational flexibility.

Brackish Well Field Hydrogeologic Services

Tarpon Springs, Florida

WSP assisted the City of Tarpon Springs with the development of an alternative water supply from a brackish groundwater supply source. The project has included assistance with obtaining funding, well field design, well installation and aquifer testing, water-quality analysis, groundwater flow modeling, water use permitting, expert testimony, well construction and testing.

Hydrogeologic Evaluation: WSP designed a well construction and aquifer testing program to collect data to assist in designing and permitting the brackish water well field. This testing program provided valuable groundwater quality data for the various formations of the Floridan aquifer to better understand the system. Wells were installed in Zones A, B and C of the Upper Floridan aquifer and a 15-day pumping test conducted.

WUP: WSP has provided assistance to the City in preparation of a WUP application for submittal to the SWFWMD for quantities of 4.2 million gallons per day (MGD) average and 6.3 MGD peak. A key aspect of the permitting process was groundwater flow modeling. One of the primary permitting issues related to an MFL for the groundwater system nearby and an MFL for the Anclote River. WSP came up with several creative analyses to minimize, offset or eliminate impacts to those MFLs. WSP has also assisted the City with several timely modifications of the WUP by letter for relocating wells, and most recently with renewal of the WUP in 2015.

Well Construction/Testing: WSP has provided hydrogeologic services for the final design, construction and testing of supply wells and monitoring wells. A full-time hydrogeologist has been on site during all construction and testing activities. WSP has also assisted with installation of wetland monitoring facilities.

WUP Compliance: WSP currently assists the City with the preparation of an annual reports for compliance with the WUP. The Annual Well Field Monitoring Report includes a statistical analysis of the period of record (2015 to current) well field production, rainfall, and water quality and water level data from production wells, aquifer monitoring wells, and monitored wetlands. The Annual Water Quality Summary Report includes a statistical analysis of production and monitoring well water-quality data for the June through May each year. A Professional Hydrogeologist analyzed all data and prepared the report in accordance with SWFWMD requirements.

Client: City of Tarpon Springs

Reference: Cassandra Arter

Address: 1624 L&R Industrial Blvd., Tarpon Springs, FL 34689

Phone: 727.937.2557

E-mail: carter@ctsfl.us

Time Period: 2007 - Ongoing

Project Budget: $500,000

Completed on Budget: Currently on schedule and budget

Primary Team Members: Jeff Trommer, Ron Ewinski, Dalton Weinstein

Role: Prime

Project Highlights:

- Development of a new Brackish Groundwater Well Field.
- Multi-year Continuing Hydrogeologic Services.
- Well Field Supply and Concentrate Disposal Injection Well Services.

Assistance to Develop Methods for the Ecohydrologic Classification and Assessment of Northern Tampa Bay and Northern District Sandhill and Xeric Wetland and Lake Types

Oldsmar, Florida

Client: Southwest Florida Water Management District

Reference: Jerry Mallams

Address: 2379 Broad St, Brooksville, FL 34604

Phone: 352.796.7211

E-mail: Jerry.Mallams@watermatters.org

Time Period: 2015 - 2016

Project Budget: $38,000 (USF contract); subsequent research completed pro bono by Dr. Nowicki for EcoHydrologix

Completed on Budget: Completed on schedule and budget

Primary Team Members: Dr. ReNae Nowicki, first as a USF student then as principal scientist for EcoHydrologix

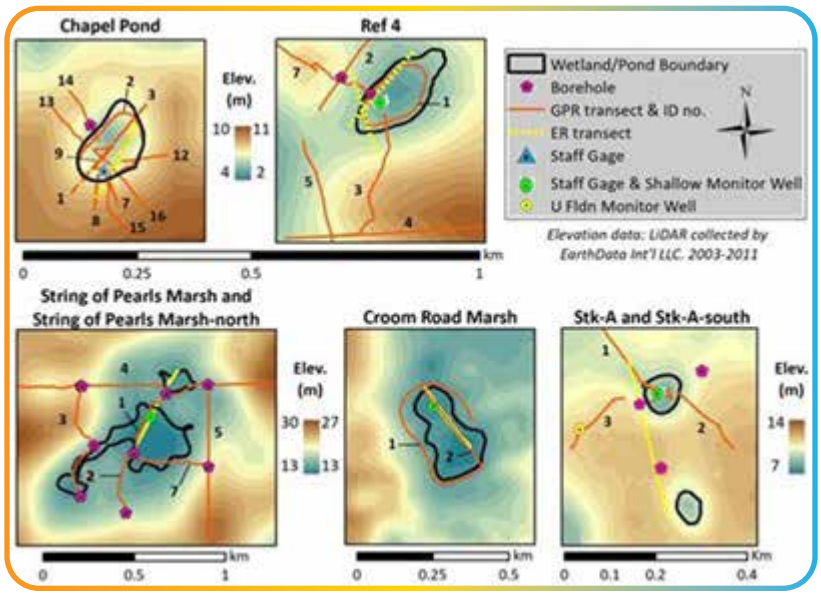
Role: EcoHydrologix - Prime

Project Highlights:

- Innovative Research Project
- Research Directly Applicable to Hernando County Wetland Systems

The project selected here (smaller in size and different in scope than the environmental monitoring or reporting required by the proposed project) is included for the relevance it has had, and will continue to have, to the County's Environmental Management Plan (EMP) and WUP compliance efforts. This project was a successor to one initially proposed by Dr. Nowicki to the District (2011) to encourage the development of a Wetland Assessment Procedure (WAP) suitable for sandhill wetlands (such as are found in Hernando County). From that initial project (completed by EcoHydrologix in 2013), multiple small projects such as this were out-sourced by the SWFWMD to gather ecological, hydrologic, and geologic data pertinent to the development of a classification and assessment method for xeric wetlands located in the northern part of the District. While this particular project was sourced to the University of South Florida, subsequent independent research by EcoHydrologix produced the very important findings that would become published in the journal WETLANDS (in press).

The goal of this project was to determine the lithologic strata associated with sandhill/xeric wetlands in the northern part of the District. EcoHydrologix used ground penetrating radar (GPR) and electromagnetic resistivity (ER) to image the area beneath and adjacent to eight geomorphologically different sandhill wetlands/ponds in Hernando and Pasco Counties. GPR and ER were selected for their complimentary abilities to resolve near-surface stratigraphy and deeper karst features, respectively. A total of 40+ post-processed GPR and ER images were interpreted by cross-referencing them with each other and with lithologic data from on-site boreholes and local well reports. Stratigraphic interpretations and images were presented for each site in a memo to SWFWMD.



Subsequent research by Dr. Nowicki (in collaboration with SWFWMD and USF scientists) led to the development of hydrogeologic configurations for seven of the sandhill wetlands/ponds assessed. These were developed by superimposing ecological and long-term hydrologic data onto the GPR and ER images from this study. Determinations from these configurations were used to develop two key conceptual models—the first depicts the mechanisms by which sandhill wetlands, ponds, and lakes connect to the UFA; and the second illustrates how sandhill depression geomorphology and the range of the UFAn determine sandhill wetland, pond, and lake ecohydrologic expression.

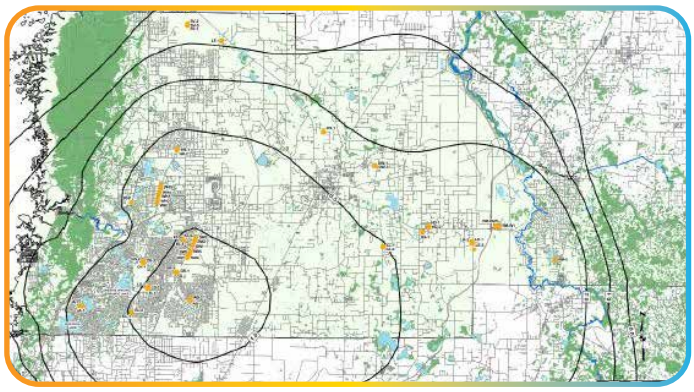
SECTION D - HERNANDO COUNTY WORK

Water Use Permitting (WUP)

Hernando County, Florida

WSP previously assisted the County with the renewal and consolidation of the East, West, and Seville WUP into a single WUP with a duration of 20 years. Three modifications of the WUP were done in the previous four years. A letter modification in 2018 included removing the two replacement wells at the Southwest Well Field, reinstating SW-1, SW-2, and SW-3 due to the geologic conditions that required abandoning the replacement wells and modifying the Environmental Monitoring Plan to remove semi-annual ecologic monitoring at two wetlands. A full modification in 2020 included moving Well No. LR-3 from the Lockhart Road facility to a new location at Trilby Crossing, removing the two wells at Weeki Wachee Woodlands from the WUP and moving the quantities to Well EL-4, and removing the WUP condition requiring water level measurements in production wells. This modification required a full modification as opposed to a letter modification because an impact analysis model was required to evaluate drawdown due to the movement of permitted quantities among wells. A letter modification was done in 2021 to remove semi-annual Wetland Assessment Procedures at one wetland site, hydrologic and incidental wildlife monitoring at one wetland site, rainfall data collection at two rainfall redundant stations, and hydrologic, wildlife and ecological monitoring at two wetland sites.

WSP has recently started work on a full modification of the WUP to add the new proposed production wells and updated demand projections for the next 20 years that were identified in the recent Master Water Plan.



Client: Hernando County

Reference: Richard Kirby, P.E.

Address: 15365 Cortez Boulevard, Brooksville, FL 34613

Phone: 352.754.4769

E-mail: RKirby@co.hernando.fl.us

Time Period: 2018 – Current

Project Budget: $73,000

Completed on Budget: Completed on schedule and budget

Primary Team Members: Jeff Trommer, Dalton Weinstein

Role: Prime

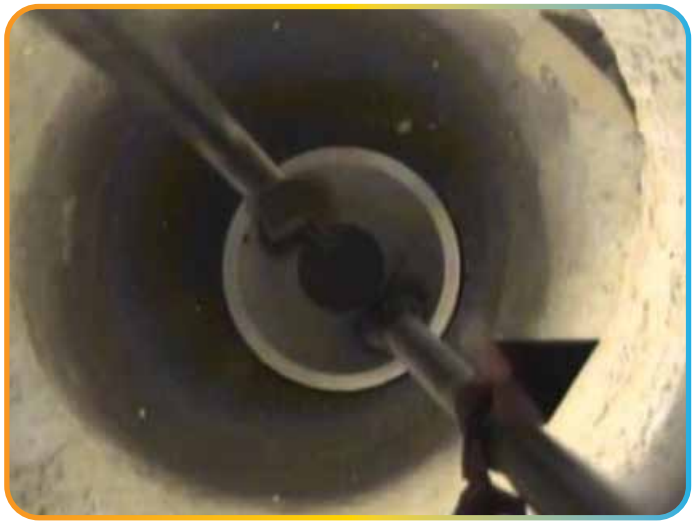
Project Highlights:

- Ongoing assistance to maintain system management.
- Successful regulatory cooperation.
- Optimizing Environmental Monitoring Plan.

Well Construction Services

Hernando County, Florida

WSP provided the design, bidding assistance, construction oversight, and testing of a new production well at the Trilby Crossing parcel. WSP assisted the County with arranging a well drilling contractor via "piggy-backing" another public entity as-needed drilling contract. This arrangement saved a few months for well construction. To reduce the potential for unforeseen geologic conditions resulting in construction problems or loss of the well, the construction procedure was revised to allow the contractor to push the well casing deeper if sand zones or collapsing formation are encountered below the initial casing depth of 250 feet below land surface (bls). This revised procedure was implemented when a sand producing zone was encountered from 285 to 299 feet bls, and a highly fractured dolomite zone was identified from 317 to 354 feet bls during drilling of the pilot borehole below the initial casing set depth of 250 bls. The casing was deepened to 360 feet bls to case off the unstable zones, which was possible because a high producing zone was identified in the pilot borehole at 500 feet bls. As a result of the revised procedure the well was successfully constructed and tested in spite of geologic conditions that could have resulted in loss of the well.



Client: Hernando County

Reference: Richard Kirby, P.E.

Address: 15365 Cortez Boulevard, Brooksville, FL 34613

Phone: 352.754.4769

E-mail: RKirby@co.hernando.fl.us

Time Period: 2020 - 2021

Project Budget: $21,300

Completed on Budget: Completed on schedule and budget

Primary Team Members: Jeff Trommer, Ron Ewinski

Role: Prime

Project Highlights:

- Successful implementation of revised well construction procedure.
- Highly productive well meeting all primary and Secondary drinking water standards.

Wellhead Protection Area (WHPA) Delineation

Hernando County, Florida

WSP performed the first countywide update of the wellhead protection areas for the County's public supply wells since the WHPA Ordinance was enacted in the late 1990's. The WHPAs were delineated using the analytic ground-water flow and particle tracking model WinFlow. The WHPAs are based on a 2-year and 10-year travel time. A countywide map of the new delineated WHPAs was developed in GIS and a report providing the assumptions and procedures used to delineate the WHPAs were submitted to the County. Since the County's WHPA Ordinance contains a description of the modeling procedures and several regulatory references from the 1990s, WSP was requested to assist with revising the language and updating the regulatory references upon which the Ordinance is based. The regulatory references were updated and the modeling-related language was updated to make the Ordinance consistent with the new WHPA delineations. WSP continues to provide technical support to the County in preparation of enacting the revised Ordinance at a Board of County Commissioners meeting.

Client: Hernando County

Reference: Richard Kirby, P.E.

Address: 15365 Cortez Boulevard, Brooksville, FL 34613

Phone: 352.754.4769

E-mail: RKirby@co.hernando.fl.us

Time Period: 2019 - Present

Project Budget: $33,000

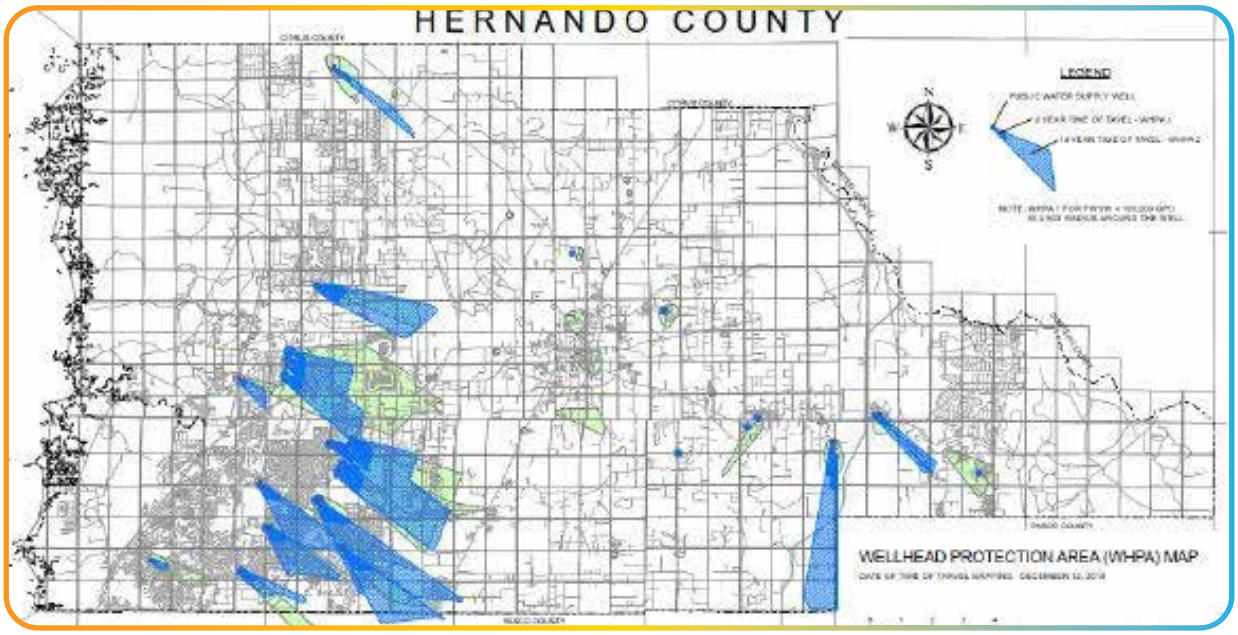
Completed on Budget: Completed on schedule and budget

Primary Team Members: Jeff Trommer

Role: Prime

Project Highlights:

- First full revision of the County Wellhead Protection Area Map since it's development.
- Updated Wellhead Protection Ordinance.

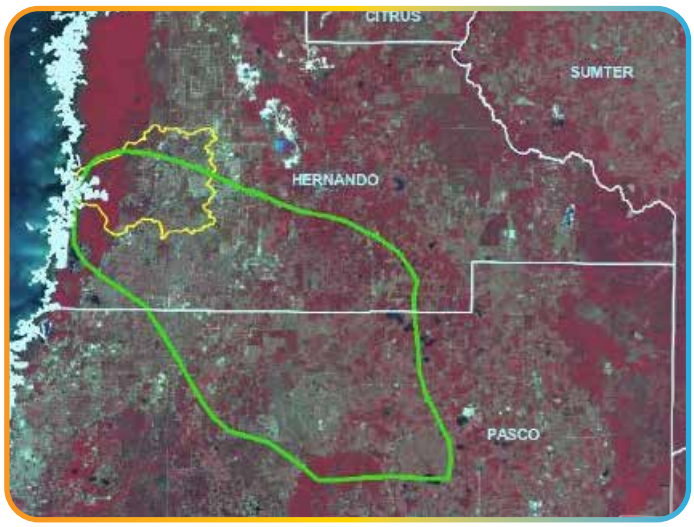


Master Water Plan

Hernando County, Florida

WSP performed the source evaluation for the 2020 Hernando County 20-year Water Master Plan. This project included groundwater flow modeling, water resource evaluation, and impact analysis. The County operates six water systems across the County, with a total of 46 production wells. These systems are not currently interconnected. Therefore, the projected demand must be able to be met with the existing wells in each system, potential new wells within each system, or interconnection of systems to balance supply and demand. WSP evaluated each system based on the number, capacity and condition of existing wells, availability of potential new well sites, and regulatory/ environmental limits such as impacts to MFL water bodies, wetlands, and other existing legal users.

The capacity of each system in terms of physical well capacity was based on pump capacity, condition of the wells, transmission line capacity, the safe yield of wells within the same parcel, and historic well or geologic issues at each site. Upon quantifying the physical capacity of the wells in each system, the distribution of capacities among the wells in each system was evaluated relative to Water Use Permit limitations. Withdrawals in Hernando County are potentially limited by MFL set on Weeki Wachee Spring, and several lakes in the County, as well as potential wetland impacts. WSP used a groundwater flow model to compare current conditions at these MFL sites under the existing permitted quantities, to several possible future scenarios to meet projected demands with the existing wells, assuming the loss of several wells that may occur over the next 20 years. The results of each scenario were evaluated with respect to maintaining acceptable impacts at MFL sites, and the need for upgrades to major transmission lines in the systems. The groundwater model was then used to evaluate sites for new wells needed to meet demand in specific service areas. A final set of recommendations were made that will allow the County to meet it's 20-year demand within the current and potential WUP constraints.



Client: Hernando County

Reference: Richard Kirby, P.E.

Address: 15365 Cortez Boulevard, Brooksville, FL 34613

Phone: 352.754.4769

E-mail: RKirby@co.hernando.fl.us

Time Period: 2019 - 2021

Project Budget: $100,000

Completed on Budget: Completed on schedule and budget

Primary Team Members: Jeff Trommer, Robert Maliva

Role: Subconsultant

Project Highlights:

- Plan to replace potential out of service wells.
- Demonstration of future compliance with Minimum Flows and Levels.

Hernando County Water System (HCWS) Environmental Management and WUP Compliance

Hernando County, Florida

EcoHydrologix currently provides hydrologic and ecological monitoring and reporting services in support of the County's consolidated HCWS WUP. Dr. Nowicki authored the consolidated EMP (2015), which updated the environmental monitoring and reporting program from prior dispersed wellfields. The project presented here reflects the last five of 23-years of EMP development/implementation and WUP assistance for the County and its predecessors (1999-2022) by Dr. Nowicki.

Services provided in this project match those of the proposed project scope of services and include: twice monthly hydrologic and incidental wildlife monitoring at 23 wetlands and ponds; monthly incidental wildlife monitoring at three MFL sites; monthly water level data downloads from 11 Upper Floridan monitor wells, 10 of which are fitted with pressure transducers that record water pressure in the well and convert it to depth measurements for the purpose of the project (water levels at the 11th well are recorded manually). Water level data from wetlands and wells are reviewed both in-situ and at the office for quality and submitted to the District on a monthly basis.

Ecological monitoring and photo-documentation are performed semi-annually at the end of the dry and wet seasons of each water year. Aerial imagery also are interpreted when available to identify local and landscape level changes that may affect area ecohydrology (agriculture, silviculture, roadways, mining, and other hydrologic modifications).

Additional tasks include as-needed maintenance of staff gauges, shallow monitor wells, pressure transducers and transect devices; database and GIS development in support of monitoring and reporting tasks; annual environmental impact assessment to include qualitative, spatial, and statistical analyses of ecohydrologic data collected by the County and others; annual report development and submittal; and correspondence with state and private land managers to maintain continued access to the wetland monitoring stations (copies of the annual reports are provided in exchange for access).

Client: Hernando County Utilities Department

Reference: Mark Morgan, PE

Address: 15365 Cortez Boulevard, Brooksville, FL 34613

Phone: 352.754.4759

E-mail: MarkM@co.hernando.fl.us

Time Period: 2016 - Present

Project Budget: $581,000 (est.)

Completed on Budget: Currently on schedule and budget

Primary Team Members: ReNae Nowicki, PhD, PWS

Role: EcoHydrolix as a Subconsultant to WSP USA Inc.

Project Highlights:

- Consistent implementation and evaluation of the environmental management and monitoring plan.
- Understanding of the unique nature of Hernando County wetland systems.

SECTION E - LOCATION

The WSP Tampa regional office will be responsible for all work activities associated with this Hernando County contract. All invoicing to the County for hydrogeologic activities associated with this contract will be prepared and submitted by WSP. The WSP Tampa office has been in existence since 1974 and is located at the Tampa International Airport, approximately 40 miles from the offices of the Hernando County Utilities Department. Below is the local WSP address:

WSP-USA, Inc

5411 SkyCenter Drive, Suite 650
Tampa, Florida 33607
(813) 520-4444

EcoHydrologix is very conveniently located in Spring Hill within 15 minutes of the Hernando County Utilities Department, most of the western study wetlands and monitor wells, and the District's Brooksville office. The proximity of the EcoHydrologix office to these locations minimizes labor and mileage costs for the twice monthly and semi-annual field monitoring events and would allow time-sensitive monitoring (e.g., rainfall response rates, etc.) if ever needed. The proximity to the County (and Southwest Florida Water Management District) office is very convenient for short-notice meetings and frequent meetings requiring in-person collaboration or planning, should the need arise.

Our team's location will benefit the County for several reasons. As mentioned above, we can provide quick response time. As our firm has maintained an office in the Tampa area since the early 1970s, we have worked on hundreds of hydrogeologic projects in west-central Florida. This long-term experience in the area has helped WSP staff develop an excellent understanding of hydrogeologic conditions and the regulatory environment. As a result of our ability to respond quickly to Hernando County and our long-term historical experience in the area, the locations of the WSP office and our team members will be very beneficial to Hernando County for this contract.

SECTION F - QUALITY/COST CONTROLS

QUALITY CONTROL (QC)

QC and quality assurance (QA) are integrated to create the QA/QC review process, which comprises systematic actions for verifying that deliverables:

- Meet the stated project requirements.
- Are consistent with the standard of care for engineering, water resources, and environmental consulting services.
- Are compliant with the applicable codes, regulatory requirements, industry standard practices, as well as WSP's own internal requirements.

At WSP, the deliverable QA/QC process is detailed in the Project Delivery Handbook and the project-specific QA Plan. ***Our Project Manager, Jeff Trommer***, is responsible for preparing the QA Plan and overseeing the project team during execution. Jeff is responsible for selecting appropriately-qualified key staff to perform the required reviews, defining the level of technical review, and verifying that the review was conducted. Jeff, as Project Manager, is also responsible for maintaining a record of each review and the disposition of the review comments, subject to an audit that demonstrates that QA/QC has been performed. This responsibility also includes the Project Manager's review of formal correspondence being transmitted for the project. Jeff will provide guidance, suggestions, and comments throughout (or delegate such responsibility to other knowledgeable project staff) so project team members can make necessary corrections. Frequent and effective interaction between the Project Manager and the project team members is necessary to the delivery of quality services and work products. QA/QC reviews are performed for all deliverables in accordance with the project's quality plan. Where required, technical editing is also performed. No deliverable will be considered complete until the associated QA/QC and QA/QC documentation are completed.

COST CONTROL

By controlling the quality of our work, we also control the cost, which is very important to the client. Repeat business with a number of municipal clients, including Hernando County is a testament to the quality of services we provide and the associated costs. WSP utilizes a standard set of procedures and internal system to manage the cost and schedule of all projects regardless of size. Following is a summary of these procedures.

- A project scope is developed and the budget is determined using a pricing tool program. The scope is reviewed for technical completeness and the project pricing is reviewed prior to submittal to the client.
- The proposal is sent to the client for review and approval to confirm whether the scope meets the clients' requirements.
- Every project requires preparation of a project management plan (PMP) which provides the blueprint for the Project Manager to manage staff assignments, schedule, and project budget.
- During execution of the project, physical percent completes are updated monthly and compared with the project task budgets to track whether the project is proceeding within budget and schedule.
- Project performance is reviewed monthly and projects with potential budget or schedule issues are discussed to determine if and what actions are necessary to keep the project on schedule and within budget.

Through the use of WSP project management procedures and systems we have a proven track record in completing projects for the County in a cost-effective manner and within budget.

Our Team Member, EcoHydrologix, implements a QA/QC process specific to the environmental monitoring and reporting services that they provide. Environmental monitoring for the proposed project requires a skillset from technical staff, which includes: the ability to accurately record water level data (manually and from continuous recording devices), troubleshoot equipment issues, recognize wildlife (by call, tracks, scat, or other often limited evidence), identify floral species (in sometimes challenging, biodiverse systems), and vigilantly identify disturbances (within the wetland and in the landscape) that may affect wetland/lake ecohydrology. The work must be done under conditions of sometimes bolstering heat or inclement weather and with potential danger from wildlife or even mal-intentioned people and in remote locations. Quality and cost are maintained when field staff are:

- Disciplined in their field techniques.
- Experienced in the ecological communities they survey.
- Properly outfitted with the equipment and technology needed to do their work efficiently and accurately.

It is incumbent on the Project Manager to ensure these criteria are met, that equipment and technology are maintained, and that staff are supported to deliver their best work, however routine and however challenging the conditions. As you will read in the Qualification Summary, the EcoHydrologix project manager and technical staff more than aptly meet these criteria. Field equipment and technology are continually evaluated for their effectiveness and performance and are regularly upgraded to improve data capture and accuracy. EcoHydrologix also encourages and funds staff attendance at conferences, seminars, workshops, and other training and presentation opportunities to allow professional growth and to inspire creativity in the performance of their duties. From this culture, quality and cost in environmental monitoring become self-controlling.

Environmental reporting for the proposed project requires a more complex skillset. It requires academic training in the fields of ecology, hydrology, and geology and advanced understanding of the ways they interact to affect or control wetland ecohydrologic expression. It requires extensive experience analyzing multiple surface and groundwater datasets and the confounding effects of groundwater production and precipitation on systems not well documented in the published scientific literature. Lastly, it requires a profound appreciation for the nuances of these systems, which may mimic impacts if misunderstood. Quality and cost of environmental reporting are maintained when these criteria are met.

The Qualification Summary will leave no doubt as to the academic, experiential, and nuanced understanding of these systems by the principal ecologist responsible for their evaluations. It is because of Dr. ReNae Nowicki thoughtful evaluations that 11 ecological and three hydrologic monitoring stations were discontinued from the monitoring program for the lack of valuable data they produced. This eliminated not only the costs for their monitoring, but also resulted in a more robust dataset from which to perform more meaningful, better quality analyses. Assessment methods also are scrutinized and improved to maintain the integrity of their objectives. The 1999 WAP, required by the District to assess wetland ecological condition, was revised by EcoHydrologix in 2016 to collect more meaningful data. The revised method better accounts for site-specific biodiversity and minimizes subjectivity in scoring, thereby improving the quality of data to be analyzed. For her 23 years of scrutinizing these systems (in the field and in the office) and her doctoral research characterizing sandhill wetland/lake ecohydrology, the project's principal ecohydrologist exemplifies the nuanced understanding needed to appropriately analyze complex datasets and interpret findings. She understands the natural variation unique to these systems and the risks of misinterpretation. By maintaining the quality and credibility of her reporting, her work and recommendations are accepted and trusted by District regulators. In this very important way, cost is controlled over the short and long-term.

Project Costs

Overall, efficiencies gained from quality and cost controls, as described here, have lowered project costs by 6% since the start of the current contract and by 13% since the current EMP was implemented. These same practices will be incorporated in the proposed project, along with continued consideration of improved technology and methods of evaluation.

Project Timing

Should conditions arise that challenge the completion of tasks in a timely matter, the team and project client managers will promptly be notified, and a solution with a new timetable proposed; where cost increases are warranted, an estimate will be provided. Communication of the issue with the District reviewer or other affected parties will be made, as needed.

WSP has a reputation of providing cost-effective solutions for our clients. Knowing and understanding the client's needs, we have the expertise and experience to address only what needs to be addressed. We also have superior knowledge of the SWFWMD and FDEP rules, regulations and requirements, so going into a project we have a head start on solving the client's needs, which saves time and money. In addition to that, we have a very good working relationship with the staff members of the SWFWMD and FDEP, which also leads to saving time and cost for the client. When you add this experience and knowledge to the fact that the ***WSP team understands the County's needs for this contract from our Team's current and previous work for the County, we have a significant advantage over others on keeping costs down.***

SECTION G - QUALIFICATION SUMMARY

WSP is the current continuing services Hydrogeologic consultant for HCUD. A significant element of this contract is the environmental/ecological monitoring and reporting services required under the County's Water Use Permit (WUP). Our team includes EcoHydrologix to provide these services.

EcoHydrologix has performed the environmental/ecological services under the current and previous contracts. Their unique qualifications for this project are detailed later in this section. Their inclusion on the WSP team allows us to provide all the services under this contract with the same staff that have worked with the County for 20 years. WSP has obtained all the County's WUP modifications and renewals since 2002. During this time two consolidation of separate system WUPs were performed, resulted in as many as seven separate permits being consolidated into a single WUP for the County with a 20-year duration instead of the previous six to 10 years. ***WSP's experience with the County's water system and our established relationships with District staff have been beneficial to the County's efforts to meet the increasing water demands in the County in a cost-effective and environmentally safe manner.***

We have been the County's primary hydrogeologic consultant for the past 20 years.

No other firm has the knowledge and experience with Hernando County hydrogeology and hydrology, or the knowledge of the County's water systems as the WSP team.

During the 20 years that WSP has served the County, we have overseen the construction of 14 new production wells, and the abandonment of 23 old wells that were either obsolete, located in isolated areas, or had physical problems such as pumping sand. The overall result of these efforts is a system with 11 MGD of increased production capacity with fewer wells, and the associated reduction in operation and maintenance costs.

WSP prepared the water source evaluations for the last three major County Master Water Plan projects. The first plan was prepared in 2005 during a period of rapid growth and water demand. The 2010 update of the Master Water Plan was needed to address changes in growth projections and regulatory issues related to location of future water sources. Most recently, we prepared the source evaluation for the 2020 Master Water Plan. The source evaluation included evaluation of the ability of the existing wells to meet future demands, identification of wells that may be lost from services during the planning period, and analysis of the permitability of proposed new wells relative to MFLs and other environmental impacts. The knowledge gained through this process strengthens our team's ability to assist the HCUD with the implementation of the Master Water Plan projects. WSP is currently working on a modification/renewal of the County's WUP to add the proposed wells and permitted quantity to meet current 20-tear demand projections.

The qualifications of our subconsultant, EcoHydrologix, that make us most qualified to perform the environmental work of this project have been introduced, part and parcel, throughout this proposal. They point to the confluence of:

- Advanced academic training in the fields of ecology, hydrology, and geology.
- Focused research and two publications characterizing sandhill wetland/lake ecohydrology.
- Extensive professional expertise in the assessment and detection of wellfield-related impacts.
- 23 years of direct institutional knowledge and the nuanced understanding that comes with it.
- A commitment to quality and cost control for the long-term benefit of the County.
- Regulatory trust borne of data collected with integrity and subject to sound data analyses.

Beyond these credentials and perhaps more importantly, the County is modifying its WUP and revising its EMP at a time when the SWFWMD is developing an MFL for xeric wetlands. The MFL, if applied to wetlands in Hernando County, may have a pronounced effect on the type of monitoring and reporting that is required by the WUP and included in the EMP. Firms qualified to assist the County through the evolution of these documents must not only meet the expected qualifications of this project (described in Sections A and F), but also have superior understanding of the County's peculiar wetlands and lakes to competently apply, address, or challenge the potential implications of (if need be) future xeric wetland regulations.

There is no firm more knowledgeable of the ecohydrology of west-central Florida's sandhill wetlands and lakes than EcoHydrologix, and no firm with more institutional knowledge of their conditions and "permitting journey." Dr. Nowicki (the current and proposed project manager/principal ecohydrologist), has dedicated her professional career to this topic, providing EMP and WUP support to the County and its predecessors as the project evolved from small, dispersed wellfields with only two monitored wetlands in 1999 to the 23 wetlands, three MFL sites, and 11 Upper Floridan Aquifer monitor wells currently monitored.

It is worth noting that the tasks required of this project have long been performed exclusively by Dr. Nowicki. She has authored a series of EMPs, personally implementing tasks to: identify appropriate wetlands to monitor (given variable hydrogeologic conditions and historical anthropogenic impacts); secure and maintain property access; establish transects; coordinate survey and monitor well installation; install, maintain, and troubleshoot pressure transducers, rain gages, and other hydrologic monitoring equipment; perform baseline and annual ecohydrologic monitoring; develop and maintain GIS and relational databases containing millions of data records; interpret environmental conditions from aerial imagery (to include 50,000+ wetland acres for the prior West Hernando hydration study); assess historical and recent rainfall patterns and the effects of their spatial and temporal variation on wetland hydration; obtain and compile ecological, hydrologic, meteorologic, geologic, GIS, and other data; statistically analyze these data to detect wellfield and non-wellfield related impacts; produce comprehensive annual reports; coordinate with client, County, and District personnel; develop annual scope and fee estimates appropriate for the work required; modify WUP conditions where appropriate; and communicate with citizens regarding County groundwater production, wetland monitoring, and the uniqueness of sandhill wetland ecohydrology.

Dr. Nowicki has provided similar services for numerous other public agencies in central Florida. She (and her teammate, Michael Stevens) has extensive regional ecohydrologic experience, having performed hundreds of wetland assessments from Citrus to Sarasota Counties (and across the state). She has performed large-scale wetland health assessments for SWFWMD and Tampa Bay Water and was recently selected to provide As-Needed Ecological Services in support of Tampa Bay Water's new WUP.

Dr. Nowicki's knowledge and commitment to quality and sound analyses have built a relationship of trust, both with County personnel and District reviewers (who have approved her data and report submittals, without comment) throughout the duration of this project. For all these reasons, EcoHydrologix is by far the most qualified firm to perform the County's sensitive environmental monitoring and reporting tasks and maintain compliance with WUP requirements.

Due to the many and varied services we have performed for the Hernando County Utilities Department over the past 20 years, and for Florida Water Services at Spring Hill for many prior years, ***the WSP team has an unmatched understanding of the local and regional hydrogeologic systems in Hernando County***, and the regulatory permitting requirements for the County water supply systems. Our files contain readily available historic information that becomes increasingly important as long-time County staff have retired taking with them the institutional knowledge of the facilities. ***Our understanding of the County's plans for management of current facilities and development of new facilities gives our team a tremendous advantage in assisting the County with the continued challenges of meeting increases in growth and demand, while maintaining and expanding the water systems throughout the county.***

We have a long-time close working relationship with the HCUD Engineering and Operations staffs and have an extensive understanding of the water supply system and the needs of the staffs for technical assistance.

SECTION H - LICENSES

Sunbiz.org Division of Corporations
an official State of Florida website

Department of State / Division of Corporations / Search Records / Search by Entity Name /

Detail by Entity Name

Foreign Profit Corporation
WSP USA INC.

Filing Information

Document Number	829626
FEI/EIN Number	11-1531569
Date Filed	03/05/1973
State	NY
Status	ACTIVE
Last Event	NAME CHANGE AMENDMENT
Event Date Filed	05/02/2017
Event Effective Date	NONE

Principal Address

One Penn Plaza
2nd Floor
New York, NY 10119

Changed: 04/18/2021

Mailing Address

One Penn Plaza
2nd Floor
New York, NY 10119

Changed: 04/18/2021

Registered Agent Name & Address

CT CORPORATION SYSTEM
1200 S. PINE ISLAND ROAD
PLANTATION, FL 33324

Name Changed: 07/02/1992

Address Changed: 07/02/1992

Officer/Director Detail

Name & Address

THE OFFICIAL SITE OF THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION

Florida dbpr Department of Business & Professional Regulation

ONLINE SERVICES

- Apply for a License
- Verify a Licensee
- View Food & Lodging Inspections
- File a Complaint
- Continuing Education Course Search
- View Application Status
- Find Exam Information
- Unlicensed Activity Search
- AB&T Delinquent Invoice & Activity List Search

LICENSEE DETAILS

10:11:37 AM 5/23/2022

Licensee Information

Name:	**WSP USA INC. (Primary Name)**
Main Address:	**ONE PENN PLAZA ATTN. MEGHAN SOTO NEW YORK New York 10119**
License Mailing:	**ONE PENN PLAZA ATTN. MEGHAN SOTO 2ND FLOOR NEW YORK NY 10119**

License Information

License Type:	**Registry**
Rank:	**Registry**
License Number:	**1462**
Status:	**Current**
Licensure Date:	**05/10/1977**
Expires:	

Special Qualifications	Qualification Effective

Alternate Names

View Related License Information

View License Complaint

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/29/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Arthur J. Gallagher Risk Management Services, Inc. 250 Park Avenue, 5th Floor New York NY 10177	**CONTACT NAME:** AJG Service Team **PHONE (A/C, No, Ext):** 212-994-7100 **FAX (A/C, No):** 212-994-7047 **E-MAIL ADDRESS:** GGB.WSPUS.CERTREQUESTS@AJG.COM
	INSURER(S) AFFORDING COVERAGE / **NAIC #** **INSURER A :** Liberty Insurance Corporation — 42404 **INSURER B :** Zurich American Insurance Company — 16535 **INSURER C :** **INSURER D :** **INSURER E :** **INSURER F :**
INSURED WSPGLOB-01 WSP USA Inc. One Penn Plaza New York, NY 10119	

COVERAGES **CERTIFICATE NUMBER:** 267002313 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			GLO 9835819-09	5/1/2022	5/1/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$ 3,500,000 $ 100,000 $ 10,000 $ 3,500,000 $ 7,500,000 $ 3,500,000 $
A	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY [ ] SCHEDULED AUTOS HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY			AS7-621-094060-032	5/1/2022	5/1/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$ 5,000,000 $ $ $ $
	[ ] **UMBRELLA LIAB** [ ] OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE 	$ $ $
A A A A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [ ] **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WA7-62D-094060-012 WA7-62D-094060-982 WA7-62D-095609-072 WC7-621-094060-912	5/1/2022 5/1/2022 5/1/2022 5/1/2022	5/1/2023 5/1/2023 5/1/2023 5/1/2023	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 2,000,000 $ 2,000,000 $ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
THIRTY (30) DAYS NOTICE OF CANCELLATION.

CERTIFICATE HOLDER

As A Matter of Record

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) **The ACORD name and logo are registered marks of ACORD**

Hydrogeologic and Environmental Management Services

RFQ No.
22-R00070/PH

TAB 4

Required Forms

SOLICITATION - OFFER - AWARD

SOLICITATION No.:	SOLICITATION TITLE:	DATE ISSUED:	CONTRACT No.:
22-R00070/PH	Hydrogeologic and Environmental Management Services	April 27, 2022	22-R00070/PH

ISSUED BY:	SUBMIT BID OFFER TO:
BOARD OF COUNTY COMMISSIONERS **HERNANDO COUNTY, FLORIDA** Steve Champion, Chairman John Allocco, Vice Chairman Elizabeth Narverud, Second Vice Chairman Wayne Dukes Jeff Holcomb	**PURCHASING AND CONTRACTS DEPARTMENT** **15470 FLIGHT PATH DRIVE** **BROOKSVILLE, FL 34604** ***Toni Brady*** ***Chief Procurement Officer***

SOLICITATION

SEALED OFFERS, IN ONE (1) ORIGINAL, FOUR (4) COPIES AND ONE (1) CD OR FLASH DRIVE, FOR FURNISHING THE SERVICES DESCRIBED HEREIN WILL BE RECEIVED AT THE PURCHASING AND CONTRACTS DEPARTMENT, 15470 FLIGHT PATH DRIVE, BROOKSVILLE, FL 34604, **UNTIL 3:00 P.M., LOCAL TIME ON MAY 25, 2022.** NO PROPOSALS WILL BE ACCEPTED AFTER THE ABOVE STIPULATED DATE AND TIME. THIS IS AN ADVERTISED SOLICITATION.

PURSUANT TO FS 119.071 (Current Edition), SEALED BIDS, PROPOSALS, OR REPLIES RECEIVED BY AN AGENCY PURSUANT TO A COMPETITIVE SOLICITATION ARE EXEMPT FROM INSPECTION UNTIL SUCH TIME AS THE AGENCY PROVIDES NOTICE OF AN INTENDED DECISION OR UNTIL THIRTY (30) DAYS AFTER OPENING THE BIDS, PROPOSALS, OR FINAL REPLIES, WHICHEVER IS EARLIER.

ITEM NO.	DESCRIPTION OF SERVICE/SUPPLIES/EQUIPMENT	QTY	UNIT	UNIT PRICE	TOTAL AMOUNT
1	Hernando County is requesting sealed Proposals from qualified individuals or firms to provide Hydrogeologic and Environmental Management Services. PLEASE SUBMIT ONE (1) ORIGINAL SIGNED DOCUMENT, FOUR (4) COPIES AND ONE (1) CD OR FLASH DRIVE. (SEE ATTACHED SPECIFICATIONS)	XXXX	XXXX	XXXXXXX	XXXXXXXXXXXX

OFFER

(TERMS, CONDITIONS AND SPECIFICATIONS ARE INCLUDED AS PARTS HEREOF)

IN COMPLIANCE WITH THE ABOVE, THE UNDERSIGNED, BEING DULY AUTHORIZED TO SIGN THIS PROPOSAL FOR THE PROPROSER.

DISCOUNT FOR PROMPT PAYMENT: N/A % 10 CALENDAR DAYS N/A % 20 CALENDAR DAYS N/A % N/A CALENDAR DAYS

OFFEROR'S INFORMATION

WSP USA Inc.
Company Name

5411 SkyCenter Drive, Ste. 650
Address

Tampa FL 33607
City State Zip Code

813.437.8953 N/A camille.dominguez@wsp.com
Phone Number Fax Number Email Address

NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER:

OFFEROR'S SIGNATURE

Camille Dominguez, PE
Florida Water Business Line Lead

OFFER DATE
5/19/2022

AWARD

(TO BE COMPLETED BY COUNTY)

REVIEWED FOR LEGAL SUFFICIENCY 4/07/22	LR No.: 2022-195	BY: Kyle J. Benda
ACCEPTED AS TO ITEM(S) No:	AMOUNT:	ACCOUNTING CODE:
SUBMIT INVOICES TO: **HERNANDO COUNTY** **UTILITIES DEPARTMENT** **15365 Cortez Blvd.** **Brooksville, FL 34613**	NAME AND TITLE OF PERSON AUTHORIZED TO SIGN ACCEPTANCE AND AWARD FOR THE COUNTY: SIGNATURE:	AWARD DATE:

SECTION IV REQUIRED FORMS

ATTACHMENT 2

PROPOSER'S CERTIFICATION

I have carefully examined the Request for Qualifications (RFQ), Instructions to Proposers, General and/or Special Conditions, Specifications, RFQ Proposal and any other documents accompanying or made a part of this invitation.

I hereby propose to furnish the goods or services specified in my Proposal. I agree that my RFQ will remain firm for a period of up to one hundred and eighty (180) days in order to allow the County adequate time to evaluate the Proposals. Furthermore, I agree to abide by all conditions of the Proposal.

I certify that all information contained in this RFQ is truthful to the best of my knowledge and belief. I further certify that I am a duly authorized to submit this RFQ on behalf of the Consultant/Firm as its act and deed and that the Consultant/Firm is ready, willing and able to perform if awarded the Contract.

I further certify that this RFQ is made without prior understanding, agreement, connection, discussion, or collusion with any person, firm or corporation submitting a RFQ for the same product or service; no officer, employee or agent of the Hernando County BCC or of any other Proposer interested in said RFQ; and that the undersigned executed this Proposer's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

I further certify that having read and examined the specifications and documents for the designated services and understanding the general conditions for Contract under which services will be performed, does hereby propose to furnish all labor, equipment, and material to provide the services set forth in the RFQ.

I hereby declare that the following listing states any clarifications, any and all variations from and exceptions to the requirements of the specifications and documents. The undersigned further declares that the "work" will be performed in strict accordance with such requirements and understands that any exceptions to the requirements of the specifications and documents may render the Proposer's Proposal non-responsive.

NO EXCEPTIONS ALLOWED AFTER THE RFQ IS SUBMITTED:
Please check one:

☒ I take NO exceptions.
☐ Exceptions:

_____

_____

_____

(If more space is needed, please indicate exceptions here and attach additional pages as needed)

Camille Dominguez, PE _____ 5/19/2022
Name & Title Signature Date
VP, Florida Water Business Line Lead

This document must be completed and returned with your Submittal

SECTION IV REQUIRED FORMS

ATTACHMENT 3

DRUG FREE WORKPLACE CERTIFICATE

I, the undersigned, in accordance with Florida Statute 287.087 (Current Edition), hereby certify that,
(print or type name of firm) WSP USA Inc.

- Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Workplace named above, and specifying actions that will be taken against violations of such prohibition.
- Informs employees about the dangers of drug abuse in the workplace, the firm's policy of maintaining a drug free working environment, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug use violations.
- Gives each employee engaged in providing commodities or Contractual services that are under Proposal a copy of the statement specified above.
- Notifies the employees that as a condition of working on the commodities or Contractual services that are under Proposal or Proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, pleas of guilty or nolo contendere to, any violation of Chapter 893, or of any controlled substance law of the State of Florida or the United States, for a violation occurring in the workplace, no later than five (5) days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
- Imposes a sanction on, or requires the satisfactory participation in, a drug abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
- Makes a good faith effort to continue to maintain a drug free workplace through the implementation of the Drug Free Workplace program.
- "As a person authorized to sign this statement, I certify that the above-named business, firm or corporation complies fully with the requirements set forth herein".

Authorized Signature

5/19/2022
Date Signed

State of: Florida

County of: Miami-Dade

Sworn to and subscribed before me this 19th day of MAY, 2022

Personally known ✓ or Produced Identification _____
(Specify Type of Identification)

Signature of Notary

My Commission Expires: Sep 6, 2023

SUSAN J. NESENMAN
Notary Public - State of Florida
Commission # GG 350020
My Comm. Expires Sep 6, 2023
Bonded through National Notary Assn.

This document must be completed and returned with your Submittal

SECTION IV REQUIRED FORMS

ATTACHMENT 4

AFFIDAVIT OF NON-COLLUSION AND OF NON-INTEREST OF HERNANDO COUNTY EMPLOYEES

WSP USA Inc.
Camille Dominguez, PE
Florida Water Business Line Lead, * being first duly sworn, deposes and says that he (it) is the Offeror in the above Proposal, that the only person or persons interested in said Proposal are named therein; that no officer, employee or agent of the Hernando County Board of County Commissioners (BOCC) or of any other Offeror is interested in said Proposal; and that affiant makes the above Proposal with no past or present collusion with any other person, firm or corporation.

Affiant

STATE OF Florida
COUNTY OF Miami-Dade

The foregoing instrument was acknowledged before me this 19th day of May, 2022 by Camille Dominguez, who is personally known to me or who has produced ____ as identification and who did take an oath.

Notary Public
My Commission Expires: Sep 6, 2023

SUSAN J. NESENMAN
Notary Public - State of Florida
Commission # GG 350020
My Comm. Expires Sep 6, 2023
Bonded through National Notary Assn.

*NOTICE: State name of Proposer followed by name of authorized individual (and title) that is signing as Affiant. If Proposer is an individual, state name of Proposer only.

This document must be completed and returned with your Submittal

SECTION IV REQUIRED FORMS

ATTACHMENT 5

SWORN STATEMENT PURSUANT TO SECTION 287.133 (3) (a), (CURRENT EDITION) FLORIDA STATUTES, IN PUBLIC ENTITY CRIMES

1. This sworn statement is submitted to

County of Hernando

by Camille Dominguez, PE, Florida Water Business Line Lead
[print individual's name and title]

for WSP USA Inc.
[print name of entity submitting sworn statement]

whose business address is 5411 SkyCenter Drive, Ste. 650, Tampa, FL 33607

(if applicable) its Federal Employer Identification Number (FEIN) is 11-1531569
(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement):

2. I understand that a "public entity crime" as defined in Paragraph 287.133 (1)(g) (Current Edition), Florida Statutes, means a violation of any public entity or with an agency or political subdivision of any other State or of the United States, including, but not limited to, any Proposal or Contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that *"convicted"* or *"conviction"* as defined in Paragraph 287.133 (1)(b) (Current Edition), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an *"affiliate"* as defined in Paragraph 287.133 (1)(a) (Current Edition), Florida Statutes, means:
   a. A predecessor or successor of a person convicted of a public entity crime; or
   b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term *"affiliate"* includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding thirty-six (36) months shall be considered an affiliate.
5. I understand that a *"person"* as defined in Paragraph 287.133(1)(e) (Current Edition), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding Contract and which Proposals or applies to Proposal on Contracts for the provisions of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement: [indicate which statement applies]

   X Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

   _____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

   _____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However,

there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted Consultant/Firm list [attach a copy of the final order].

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31, OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT.

Camille Dominguez May 19, 2022
[signature] [date]

STATE OF FLORIDA
COUNTY OF Miami-Dade
PERSONALLY APPEARED BEFORE ME, the undersigned authority

Camille Dominguez, PE who, after first being sworn by me, affixed his signature in the space
[Name of Individual Signing]
provided above on this 19 day of May 2022

NOTARY PUBLIC

My commission expires: Sep 6, 2023

SUSAN J. NESENMAN
Notary Public - State of Florida
Commission # GG 350020
My Comm. Expires Sep 6, 2023
Bonded through National Notary Assn.

This document must be completed and returned with your Submittal

SECTION IV REQUIRED FORMS

ATTACHMENT 6

CONSULTANT/FIRM INFORMATION

In addition to General conditions, your PROPOSAL may be disqualified if the following Consultant/Firm information is not returned with your PROPOSAL.

Firm Name: WSP USA Inc.

Mailing Address: 5411 SkyCenter Drive, Ste. 650

Tampa, FL 33607

Telephone No. 813.437.8953 Fax No. N/A

Email Address: camille.dominguez@wsp.com Web Address: www.wsp.com

Consultant/Firm is:
(X) Corporation
( ) Partnership
( ) Sole Proprietorship
( ) Other _____ (Explain)

Federal Employer Identification
Number or Social Security Number: 11-1531569

Do you collect Florida State Sales Tax? ( ) Yes ( ) No

AUTHORIZED SIGNATURES/NEGOTIATORS

The Consultant/Firm represents that the following persons are authorized to sign and/or negotiate Contracts and related documents to which the Proposer will be duly bound:

Name Camille Dominguez-Gonzalez, PE Title VP, Florida Business Lead Phone No. 561-381-7089
Name _____ Title _____ Phone No. _____
Name _____ Title _____ Phone No. _____

Commodity or Service Supply: Groundwater and Environmental Services

---

If Consultant/Firm is quoting, as a manufacturer's representative and the purchase order should be addressed to the manufacturer in care of the Consultant/Firm, so indicate.

If remittance address is different from the mailing address so indicate below.

Submitted by (SIGNATURE): 

Name & Title Printed: Camille Dominguez, PE
Florida Water Business Line Lead

This document must be completed and returned with your Submittal

SECTION IV REQUIRED FORMS

ATTACHMENT 7

HERNANDO COUNTY E-VERIFY CERTIFICATION

RFQ/Contract No: 22-R00070

Financial Project No(s): TBD

Project Description: Hydrogeologic and Environmental Management Services

Consultant/Firm acknowledges and agrees to the following:

Consultant/Firm shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of:

1. **All persons employed by the Consultant/Firm during the term of the Contract to perform employment duties within Florida; and**
2. **All persons, including Sub-Contractors, assigned by the Consultant/Firm to perform work pursuant to the Contract with the Department.**

Company/Firm: WSP USA Inc.

Authorized Signature: 

Print Name: Camille Dominguez, PE

Title: Florida Water Business Line Lead

Date: 5/19/2022

This document must be completed and returned with your Submittal

SECTION IV REQUIRED FORMS

ATTACHMENT 8

VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

Respondent Vendor Name: WSP USA Inc.

Proposer/Contractor FEIN: 11-1531569

Proposer/Contractor's Authorized Representative Name and Title:
Camille Dominguez, PE Florida Water Business Line Lead

Address: 5411 SkyCenter Drive, Ste. 650

City: Tampa State: Florida Zip: 33607

Phone Number: 813.437.8953

Email Address: camille.dominguez@wsp.com

Section 287.135 (Current Edition), Florida Statutes, prohibits agencies from contracting with companies for goods or services of $1,000,000.00 or more, that are on either the Scrutinized Companies with Activities in Sudan list, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector lists which are created pursuant to s. 215.473 F.S. (Current Edition), or the Scrutinized Companies that Boycott Israel list, created pursuant to s. 215.4725 F.S. (Current Edition), or companies that are engaged in a boycott of Israel or companies engaged in business operations in Cuba or Syria.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on either the Scrutinized Companies with Activities in Sudan list or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector list, or the Scrutinized Companies that Boycott Israel list. I further certify that the company is not engaged in a boycott of Israel. I understand that pursuant to section 287.135 (Current Edition), Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs and does not have business operations in Cuba or Syria.

Certified by: 

who is authorized to sign on behalf of the above-reference company.

Print Name and Title:
Camille Dominguez, PE Florida Water Business Line Lead

Date: 5/19/2022

SECTION IV REQUIRED FORMS

ATTACHMENT 9

VENDOR REGISTRATION HERNANDO COUNTY, FL

To be completed by vendor:
Vendor type:
(X) Corporation
( ) Partnership
( ) Sole Proprietorship
( ) Other _____(Explain)

Federal Employer Identification
Number or Social Security Number: 11-1531569

Please attach your completed W-9 Form
PAYMENT WILL NOT BE MADE UNTIL A COMPLETED W9 HAS BEEN RECEIVED.

Firm Name: WSP USA Inc.

Mailing Address: 5411 SkyCenter Drive, Ste. 650

City Tampa State FL Zip 33607

Telephone No. 813.437.8953 Fax No. N/A

Web Address: www.wsp.com EMail: camille.dominguez@wsp.com

Commodity or Service Supply: Groundwater and Environmental Consultants

If remittance address is different from the mailing address so indicate below.

Firm Name: _____

Mailing Address: _____

City_____State_____Zip_____

An ACH electronic payment method is offered as an alternative to a payment by physical check.
( ) Please check this box if you accept the ACH electronic payment method. (Recommended and Preferred)

Signature: _____

Name & Title Printed: Camille Dominguez, PE VP, Florida Water Business Leader

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ **Go to *www.irs.gov/FormW9* for instructions and the latest information.**

Give Form to the requester. Do not send to the IRS.

Print or type. See **Specific Instructions** on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

WSP USA Inc.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) **5**

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

One Penn Plaza, 4th Floor C/O WSP Tax Department

Requester's name and address (optional)

6 City, state, and ZIP code

New York, NY 10119

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN,* later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

1	1	–	1	5	3	1	5	6	9

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here Signature of U.S. person ▶ *David W. Frederick* Date ▶ **01/03/2022**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

SECTION IV REQUIRED FORMS

ATTACHMENT 10

ADDENDUM ACKNOWLEDGEMENT

The undersigned acknowledges receipt of the following addenda to the Request for Qualifications (indicate number and date of each):

Addendum No. 1 Dated 5/12/2022

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS THE PRICING AND OR SCOPE IS CONSIDERED A MAJOR IRREGULARITY AND MAY BE CAUSE FOR REJECTION OF ANY PROPOSAL.

VENDOR SURVEY

Please provide information on where you received the knowledge of the Bid/Request for Proposals (mark all that apply):

☒ **BIDNET DIRECT**

☐ **NEWSPAPER**

☐ **PURCHASING AND CONTRACTS ADVERTISEMENT BOARD**

☐ **REFERRED BY:** _____

☒ **OTHER (PLEASE SPECIFY):** Client Meeting

Signature 5/19/2022
Date

Camille Dominguez, PE
Florida Water Business Line Lead

This document must be completed and returned with your Submittal

ADDENDUM NO. ONE (1)

TO
THE CONTRACT DOCUMENTS FOR

HYDROGEOLOGIC AND ENVIRONMENTAL MANAGEMENT SERVICES

IN
HERNANDO COUNTY, FLORIDA

SOLICITATION NO. 22-R00070/PH

PROPOSAL DUE DATE: May 25, 2022 at 3:00 p.m.

NOTICE

PROPOSERS ARE REQUIRED TO ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNATURE AT THE BOTTOM OF THIS ADDENDUM IN THE SPACE PROVIDED AND RETURNED AT THE TIME OF THE PROPOSAL DUE DATE.

TO ALL PLANHOLDERS:

The following changes, additions and/or deletions are hereby made a part of the Contract Documents for **HYDROGEOLOGIC AND ENVIRONMENTAL MANAGEMENT SERVICES** located in Hernando County, as fully and completely as if the same were fully set forth therein:

QUESTIONS AND ANSWERS

1. Question: Can you please tell me which firm has the current contract?

   Answer: WSP USA, Inc.

2. Question: Section 4.2 states that a "CD of the Technical Proposal Package" is required, is it possible to submit a flash drive containing an electronic copy of the Technical Proposal Package instead of putting this document on a CD?

   Answer: A flash drive is preferred but either one is acceptable.

3. Question: Section B – Project Team and Section E – Location both request a description of how the location of our project team may benefit the County, does the County want a response in both sections?

   Answer: It is not necessary to answer the question about location in Section B since the same question can be answered in Section E.

4. Question: Can you provide the incumbent on the existing contract with County for Hydrogeologic and Environmental Management Services?

   Answer: WSP USA, Inc.

5. Question: Please clarify if only one firm is to be selected for this RFQ.

   Answer: It is the intent of the County to award the contract to one (1) firm.

6. Question: Who is/are the incumbents for this contract?

   Answer: WSP USA, Inc.

7. Question: Can you please provide the last monitoring report for the County's Environmental Management Plan (EMP)?

   Answer: The link to the report can be found at: https://hernandocountyboccfl.sharepoint.com/HCUD%20%20Vendor%20File%20Share/Forms/AllItems.aspx?id=%2FHCUD%20%20Vendor%20File%20Share%2FHCUD%20Transfer%20Files%2FEMP2021&p=true&ga=1

BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY

Acknowledged
Camille Dominguez, PE
Florida Water Business Line Lead

Patty Hall, CPPB
Purchasing Coordinator

Issued: May 12, 2022

ATTACHMENT 11

HERNANDO COUNTY EMPLOYMENT DISCLOSURE CERTIFICATION STATEMENT

5/19/2022
(date)

Hernando County
Purchasing and Contracts
15470 Flig t Pat Drive
Brooksville, FL 34604

The undersigned certifies that to the best of his/her knowledge:

Is any Officer, Partner, Director, Proprietor, Associate or Member of the Business Entity a former employee of Hernando County within the last two (2) years? No [X] Yes [ ]

Is any Officer, Partner, Director, Proprietor, Associate or Member of the Business Entity a Relative or Member of the Household of a current Hernando County Employee that had or will have any involvement with this Procurement or Contract Authorization? No [X] Yes [ ]

If the answer to either of the above questions is "Yes", complete the "Relatives and Former Hernando County Employees - Roles and Signatures" table (Part A and/or Part B, as applicable).

Bidder: WSP USA Inc.

camille.dominguez@wsp.com (Email address)	5411 SkyCenter Drive, Ste. 650 Tampa, FL 33607 (Address)
(Signature required)	813.437.8953 (Phone)
Camille Dominguez, PE (Print name)	N/A (Fax)
Florida Water Business Line Lead (Print title)	(Federal Taxpayer ID Number)

5411 SkyCenter Drive | Suite 650 | Tampa, FL 336087