

Peter G. Hubbell is a Principal, Senior Hydrologist and cofounder of the consulting firm, Water Resource Associates, Inc. (WRA), located in Tampa, Florida. Hubbell was formerly Executive Director of the Southwest Florida Water Management District (SWFWMD) for over eight years and worked at the agency for a total of nineteen. At SWFWMD, he was responsible for the development of water resource programs and overall management of District operations.

Expertise

- *Resource Management and Regulatory Programs for Sustainable Water Development and Protection*
- *Integrated Water Management Planning*
- *Alternative Water Supply Development*
- *International Technology Transfer*
- *Alternative Dispute Resolution for Environmental Conflicts*
- *Public and In-School Education Programs on the Environment and*
- *Water Management*

Experience

38 years experience / 15 years with WRA

Education

BS / Hydrology and Water Resource Management
College of Agriculture, University of Maryland

Registrations / Certifications

Florida Supreme Court Certified Mediator

Recognition / Professional Activities

American Water Resources Association, National Award, the 1997 William C. Ackerman Medal for Excellence in Water Management
Chairman, Florida's "Bluebelt Commission" on Aquifer Recharge
Founding Member, Policy Council, International Water Resource Network
Founding Member, Florida Aquarium
Florida Conflict Resolution Consortium
National Research Council, Committee on Valuing the Nation's Groundwater
American Water Resources Association
American Water Works Association
Interstate Council on Water Policy

Related Projects – Water Resources

Withlacoochee Regional Water Supply Authority (WRWSA) – Marion County Water Conservation and Reclaimed Water Initiative – July 2012 Project Manager

WRA analyzed water conservation and reclaimed water opportunities for Marion County, FL and its incorporated municipalities. This included an inventory of existing programs and reclaimed projects. Based on population projections potential water savings and impact to per capita usage utilizing additional water conservation and reclaimed water initiatives was analyzed.

Withlacoochee Regional Water Supply Authority (WRWSA) – Regional Framework Initiative December 2011 – Project Manager

A key recommendation from the Phase II report was the establishment of a "regional framework" for future water supply development. The framework is a plan that promotes regional and sub-regional water supply development with the objective of maximizing traditional groundwater supplies while minimizing economic and environmental impacts. It also considers the ultimate introduction of alternative water supplies in the region.

Withlacoochee Regional Water Supply Authority (WRWSA) – Withlacoochee Master Regional Water Supply Planning and Implementation Program – Phase II – Detailed Water Supply Feasibility Analyses – April 2010 - Project Manager

WRA evaluated potential water sources to assess environmental impacts, ability to permit, public perception, long-term viability of source, relative cost and time required to implement, conflicts with existing sources, ability to serve multiple users, and compatibility with current utility systems. Detailed analyses prepared during Phase II will progress in a manner largely corresponding with priority areas identified in the updated Master Regional Water Supply Plan (Phase I) as areas of the region with the highest water supply demand. Phase II described and prioritized proposed projects based on a more in-depth analysis than the previous report. This analysis included project sizing, cost-estimation, cost-benefit analyses, timing/scheduling and optimization of potential projects.



Water Resource Associates, Inc.

Planning ~ Engineering ~ Environmental Science
4260 West Linebaugh Avenue
Tampa, Florida 33624
Phone: 813-265-3130
Fax: 813-265-6610
www.wraconsultants.com

Withlacoochee Regional Water Supply Authority (WRWSA) – Withlacoochee Master Regional Water Supply Planning and Implementation Program – Phase VII – Water Supply Feasibility Analyses, Northern District Modeling and Local Community Technical Support – Project Manager

Utilizing SWFWMD's "Northern District Model" and other appropriate tools, the Authority sought to determine a planning level estimate of how much additional groundwater can be withdrawn (allocated) in order to devise a range of management schemes to minimize impacts on adopted flows or levels. WRA interpreted these results for local communities otherwise lacking in technical support so that they could optimize existing wellfield expansions and the location of future wellfields without causing an MFL violations, to plan for appropriate capital improvements and densities and intensities of development set forth in local comprehensive plans, and to provide meaningful feed-back to the District. Through this mechanism, the Authority can further refine the Master Regional Water Supply Plan based upon established Minimum Flows and Levels as well as evolving regional and sub-regional water supply strategies.

Withlacoochee Regional Water Supply Authority (WRWSA) – Regional Water Supply Plan Update – March 2007 – Project Manager

WRA updated the WRWSA water supply plan produced in 1997. This included population projections and related water demand for a 20-year planning horizon. WRA analyzed potential projects, including both traditional and alternative supplies, to meet water demand and conducted regional groundwater modeling to determine available groundwater resources considering environmental constraints.

Lake County Water Supply Plan – Lake County Water Alliance – Project Manager

WRA developed the Lake County Water Supply Plan. This includes evaluating existing plans and studies for each Alliance member's government. This entailed assessing the existing plans and combines them with additional data and evaluations to develop a plan with new strategies and options that optimizes the use of groundwater resources and identifies alternative water supply development projects to meet projected water

supply needs in Lake County, without unacceptable environmental or water quality impacts.

Suwannee River Water Management District (SRWMD) – Water Supply Planning and Springs Initiative – Project Manager

WRA completed a report to assist the SRWMD in developing a long-range strategy for District water supply planning and sustainable water supply development. The report includes comprehensive recommendations and a schedule for implementation of the planning and development program.

Technical/Professional Services for Regional Water Supply Planning and Water Resource Development – Northwest Florida Water Management District – Project Manager

WRA provided technical/professional services for regional water supply planning and water resource development to the NFWMD. This included data collection, conceptual engineering evaluations, water quality and water treatment analyses, conceptual cost estimates and feasibilities, technical peer review and alternatives development.

Long Range Water Supply Planning – Clear Springs Land Development – Project Manager

WRA was the project manager in determining the water needs and best utilization of both traditional and alternative water sources for a proposed 18,000-acre site located in Bartow, Florida slated for agricultural, commercial and residential development.

Pine Level Water Optimization Analysis – IMC Agrico - Project Manager

WRA was the project leader in determining the water needs and best utilization of both traditional and alternative water sources for the proposed 17,000-acre Pine Level phosphate mine in Hardee and DeSoto Counties.

Reclaimed Water Research – St. Johns River Water Management District – Project Manager

WRA developed a report of current information regarding the beneficial uses of reclaimed water in Florida that highlighted the latest advances in reuse technology, regulatory initiatives and funding incentives.



Water Resource Associates, Inc.

Planning ~ Engineering ~ Environmental Science

4260 West Linebaugh Avenue

Tampa, Florida 33624

Phone: 813-265-3130

Fax: 813-265-6610

www.wraconsultants.com

Water Resource Operations Advisor – Hillsborough County, FL

WRA provides expert scientific, technical and policy services to the County administrative, legal and water department staff related to growth management, water management and environmental issues. WRA is also actively involved in the review of the new TBW water resource projects currently being implemented for the Tampa Bay Region.

Pasco County Master Water Supply Plan – Pasco County, FL

WRA developed a 20-year water supply master plan for Pasco County, Florida. The plan identified demand projects for major use groups and water supply sources to meet those demands including demand management techniques, reuse, groundwater, surface water and desalination options.

Water Resource Consultants – Pasco County, FL

WRA provided hydrologic and engineering services to Pasco County. Services included water policy review and formulation for the County Administration, a master water supply plan for the County and expert scientific and technical services on water related, growth management and environmental issues.

Master Water Supply Development Plan – Taylor Ranch, Sarasota County, FL – Project Manager

Designed and permitted the Master Water Supply Development Plan for this 16,000-acre ranch that is converting from an agricultural operation to a series of residential developments. This included the development of both traditional and alternative water supplies in the Southern Water Use Caution Area (SWUCA).

Water Use Design – Debrecen Road Residential Development – Manatee County, FL

Developed and permitted the water use design for a golf course residential development in the Most Impacted Area (MIA) of the SWUCA. This included the storage of wet season flows of reclaimed water along with available surface water runoff to supplement irrigation quantities.

Establishment of Minimum Flows and Levels- Southern Water Use Caution Area

Organized and facilitated a group of thirty-two stakeholders from divergent interests to develop a management plan addressing impacts to the resource and economic interests of the critical water supply area of Southwest Florida.

Establishment of Alternative Water Supply Development Programs

Initiated the cooperative funding program and the New Water Sources Initiative (NWSI) at the Southwest Florida Water Management District aimed at an incentive approach to develop and fund alternative water supply programs throughout west-central Florida.

Bullfrog Creek Watershed Management Plan

Formulated a plan for Hillsborough County, FL to identify and generate watershed management opportunities in this coastal river basin. The plan contains stormwater, water quality, water supply and environmental considerations for long-term maintenance and enhancement. Facilitated a series of public information and input sessions with affected residents.

Hillsborough County Phosphate Reclamation Manual

Water Resource Associates (WRA) developed a reclamation manual for phosphate mining within Hillsborough County, FL. The manual enabled the County to better define and manage their program regulating the industry's mined lands reclamation requirements. The manual develops conditions and strategies for hydrology, soils, topography, habitat and success standards.

Manatee County Phosphate Reclamation Standards

WRA has completed and developed a set of standards for phosphate reclamation within Manatee County, FL. The manual enables the County to better define and manage their program regulating the industry's mined lands reclamation requirements. The manual develops conditions and strategies for hydrology, soils, topography, habitat and success standards.



Water Resource Associates, Inc.

Planning ~ Engineering ~ Environmental Science

4260 West Linebaugh Avenue

Tampa, Florida 33624

Phone: 813-265-3130

Fax: 813-265-6610

www.wraconsultants.com

Related Projects – Public Facilitation

Facilitation Services – Florida’s Water Management Districts – FEMA Map Modernization Coordination

Provided organizational and facilitation services for the FL’s WMDs in an effort to coordinate and maximize Federal support for the FEMA MapMod program in Florida. Also coordinated implementation of the MapMod program with other state and Federal agencies soliciting participation in enhancing MapMod efforts.

Facilitation Services/Technical Services – Suwannee River Water Management District – FEMA Map Modernization Implementation

Provided H&H, public outreach and facilitation services to the SRWMD for the implementation of the MapMod program within the District. This included surface water hydrology and hydraulics, public meetings and facilitation of stakeholders.

Facilitation Services/Technical Services – NW Florida Water Management District – FEMA Map Modernization Implementation

Provided H&H, public outreach and facilitation services to the NFWMD for the implementation of the MapMod program within the District. This included surface water hydrology and hydraulics, public meetings and facilitation of stakeholders.

Facilitation Services/Technical Services – Southwest Florida Water Management District – FEMA Map Modernization Implementation

Provided H&H, public outreach and facilitation services to the SWFWMD for the implementation of the MapMod program within the District. This included surface water hydrology and hydraulics, public meetings and facilitation of stakeholders.

Facilitation Services/Technical Services – South Florida Water Management District – FEMA Map Modernization Implementation

Provided H&H, public outreach and facilitation services to the SFWMD for the implementation of the MapMod program within the District. This included surface water hydrology and hydraulics, public meetings and facilitation of stakeholders.

Facilitation Services – National Environmental Dialogue on Pork Production

Provided program design, development and facilitation and mediation services for the establishment of best management practices and public participation for the controversy surrounding concentrated animal feeding operations (CAFO) in the pork production industry nationally. The process developed consensus on regulatory and non-regulatory strategies for establishment of alternative strategies for environmental protection with stakeholders in the CAFO debate.

Facilitation Services – Association of State and Interstate Water Pollution Control Administrators (ASIWPCA)

Developed, designed and facilitated a strategic planning and visioning process for ASIWPCA which is a national organization of senior-level state water management officials. These sessions enabled the organization to set short and long-term goals and objectives as part of their annual meeting process.

Facilitation Services - Suwannee River Water Management District (SRWMD)

Developed, designed and facilitated a strategic planning and consensus building process for the Governing Board and the staff of the SRWMD. The results of the sessions were utilized to update of the SRWMD - District Water Management Plan.

Facilitation Services- Hillsborough County Wellhead and Resource Protection Study

Designed and facilitated the review and update of the Hillsborough County Wellhead Protection Ordinance. This ordinance will now include both groundwater and surface water projects based on the implementation of the Tampa Bay Water Master Water Supply Plan. Stakeholders group included affected interests throughout the region.

Water Resource Advisor to USEPA-ACT/ACF Water Allocation Formula Negotiations

Assisted the USEPA in formulating and reviewing proposed water allocation formulas and created a basin plan format for the Alabama / Coosa / Talapoosa and Apalachicola/ Chattahoochee/Flint River Basins. Proposed future water withdrawals from the river basins have generated litigation between Alabama, Florida and Georgia to be settled through a negotiated river basin compact.



Water Resource Associates, Inc.

Planning ~ Engineering ~ Environmental Science

4260 West Linebaugh Avenue

Tampa, Florida 33624

Phone: 813-265-3130

Fax: 813-265-6610

www.wraconsultants.com

Peter G. Hubbell
Principal/Senior Hydrologist



Water Resource Associates, Inc.

Planning ~ Engineering ~ Environmental Science

4260 West Linebaugh Avenue

Tampa, Florida 33624

Phone: 813-265-3130

Fax: 813-265-6610

www.wraconsultants.com