

Florida Water Resources Research Center FY2007

Under the direction of Professor Kirk Hatfield, the Florida Water Resources Research Center is continuing to maximize the amount of graduate student funding available to the state of Florida under the provisions of section 104 of the Water Resources Research Act of 1984. Over the past year total funding through the Center was \$1,157,652, including affiliated research projects and agreements with four of Florida's universities (Florida Atlantic University, Florida State University, University of South Florida, and the University of Florida) and four state agencies (South Florida Water Management District, Southwest Florida Water Management District, St. Johns River Water Management District, and the Florida Geological Survey) and has supported the research of 13 Ph.D. students and 3 Masters students focusing on water resources issues.

The supported research projects consider a wide range of water resources related issues while maintaining focus on topics specific to Florida. The research topics include:

- Development of new tools for characterizing contaminant source zones (surface water and groundwater flux meters patented by Dr. Hatfield and the University of Florida)
- Karst aquifer modeling
- Estimating probable extreme groundwater elevations for tidally influenced and inland conditions
- Investigation of the geochemical processes that control the mobilization of arsenic during aquifer storage recovery (ASR)
- Developing software for quantifying the impacts of saltwater up-coning and well field pumping
- Comparing widely used procedures by which radar- and gauge-derived rainfall are optimally combined for water management and regulatory decisions
- Investigating the measurement of evapotranspiration, recharge, and runoff in shallow water table environments characteristic of the Gulf of Mexico coastal plain
- Modeling the measurement of erosion around and flow through hydraulic structures and culverts

For more information regarding the WRRC assistantship program contact Kirk Hatfield or Mark Newman.



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