

Mr. Holland is an Environmental Scientist at **Michael G. Czerwinski, P.A. Environmental Consultants** with over 13 years of experience conducting biological assessments for listed species, wetland resource studies and monitoring, GIS analysis, wetland jurisdictional delineation, mitigation and restoration, water quality sampling, environmental monitoring, gopher tortoise surveys, and tortoise relocations. He is proficient in ERP permitting and ArcGIS Desktop and has mapped numerous wetland systems and mitigation projects for use in permit authorizations and compliance. Mr. Holland has received formal training in wetland jurisdictional line determinations, gopher tortoise relocation, Seasonal High-Water determinations in Soils and Wetland Assessment Procedures



(WAP's). He has conducted hydrologic and environmental monitoring, conducted analysis of hydrologic conditions and/or produced annual reports at a number of local and regional wellfields including Starkey / North Pasco and Morris Bridge for the SWFWMD, Sugarmill Woods for Citrus County Utilities and the Villages of Rainbow Springs Wellfield. Andrew and has worked closely with Local, State and Federal agencies on obtaining and maintaining compliance under Environmental Resource, Nationwide and Water Use permit authorizations.

#### **PROFESSIONAL EXPERIENCE**

**Environmental Consultant, Michael G. Czerwinski, P.A. Environmental Consultants** January 2006 to present. Authorized Gopher Tortoise Agent and Environmental Scientist for private environmental consulting operation providing wildlife and habitat assessments, wetland jurisdictional delineations, GIS analysis, water quality sampling, gopher tortoise burrow surveying, listed wildlife permitting and relocation, Phase I Environmental Assessments and specialized environmental studies.

#### **WORKSHOPS, TRAINING, SEMINARS**

- SWFWMD's WAPS Training at Jay B. Starkey Wilderness Park (May 2008)
- SWFWMD's 20<sup>th</sup> Annual Workshop on the Methods for Identifying Soils and Determining Seasonal High Ground Water Table Depth (March 2008)
- Florida Statewide Wetland Delineation Training, Richard Chinn Environmental Training, Inc. (December 2006)
- Conservation and Management Issues Affecting Amphibians in the Southeast" Workshop (October 2006)
- Gopher Tortoise Workshop, Ashton Biodiversity Research & Preservation Institute, Inc. (July 2006)



**AREA OF EXPERTISE:** Wetland assessment, mitigation and monitoring, quantitative and qualitative vegetation and wildlife studies, water quality sampling.

**EDUCATION:** B.S. *Cum Laude* Environmental Science, University of Florida, 2006

**EXPERIENCE:** 13 Years

**PROFESSIONAL STATUS:** Authorized Gopher Tortoise Agent (Permit GTA-09-00101F)

**PROJECT ROLE:** Environmental Scientist, GIS Analyst

**TECHNICAL EXCELLENCE:** Mr. Holland has conducted numerous water quality monitoring studies and wellfield monitoring as required by WUP's and EPP's of Water Use Permits for wellfields including Sugarmill Woods, Section 16 Lake, Starkey and Morris Bridge Wellfields.

Mr. Holland has been licensed as an Authorized Gopher Tortoise Agent since May 2009 and has conducted numerous gopher tortoise surveys, GIS habitat and burrow mapping, and gopher tortoise relocations for over 6 years. Notable projects include large roadway expansion projects such as the Suncoast Parkway 2 Extension, Sunshine Grove Road in Hernando County, and County Road 486 Improvements Phase III and Phase IV in Citrus County Florida, CR491 Widening in Citrus County, the Citrus County MC-22 Forcemain, and the Citrus County Crystal River Wastewater Corridor FM.