

**ANDREW B. HOLLAND**  
**ENVIRONMENTAL SCIENTIST**

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**Education & Registrations**

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

A.A. *Cum Laude*, Liberal Arts and Sciences, University of Florida, 2003

**BACKGROUND**

Environmental Scientist with specialization in biological assessments for listed species, wetland resource studies, GIS analysis, wetland jurisdictional delineation, mitigation and restoration, gopher tortoise surveys, and tortoise relocations.

Mr. Holland is proficient with ArcGIS (9.1) MS Excel, MS Word, MS Powerpoint, and hand-held GPS. He has also operated numerous off road vehicles including ATV's.

**PROFESSIONAL EXPERIENCE**

**Environmental Scientist, Michael G. Czerwinski, P.A., Environmental Consultants**

January 2006 to present. Private environmental consulting operation providing wildlife and habitat assessments, wetland jurisdictional delineations, GIS analysis, Phase 1 Environmental Assessments and specialized environmental studies.

**PROJECT RELATED EXPERIENCE**

The following is a listing of some of the more noteworthy recent project involvement:

**Homosassa Phase V Wastewater Collection System Infrastructure for Citrus County BOCC.** (2006) Supplied Tampa Bay Engineering Group with pertinent wetland location information for the planning and engineering of a wastewater collection system in Homosassa, FL. Wetlands within the study area were identified, described and mapped. A series of GIS maps were created to document the locations of wetlands that may be impacted by the placement of underground utilities.

**Section 16 Lake Water Level Monitoring, Biological and Hydrologic Assessment for Rainbow Springs Utilities.** (2006) Assisted with the scope and methodology of an Environmental Management

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Plan required by SWFWMD Water Use Permit to assess wetland water level trends at Section 16 Lake located in the Villages of Rainbow Springs in southwestern Marion County. Established a 250 foot transect and a water level staff gauge to monitor vegetation and hydrologic conditions from the open water lake to upland habitat. Hydrologic and vegetative data was collected and analyzed along the transect. The data will be used to determine the environmental effects, if any on Section 16 Lake, resulting from a nearby public supply well owned and operated by Rainbow Springs Utilities. A biological monitoring assessment report is currently being developed which analyzes the hydrologic and vegetative results.

**Jurisdictional Wetland Delineation and Regulatory Agency Inspection**

Performed aerial photo-interpretation, soils assessments, and field reconnaissance to accurately map jurisdictional wetland limits for numerous residential lots and developments.

**Biological Inventory and Habitat Assessments, Gopher Tortoise Surveys, Gopher Tortoise Incidental Take Permit and Gopher Tortoise Relocations**

for numerous clients including Manko Company, Saratoga South, Citrus Springs Unit 24, Emerald Hills Ventures Ranch Estates, Rainbow Springs Tract F, and Citrus County School Board. Evaluated habitat and likelihood of occurrence or presence of listed species, mapped land use / land cover, wetlands, topography, and soils.

**Floral and Fauna, Listed Species and General Wildlife Assessments.** (2006) Performed general as well as species-specific plant and animal surveys and habitat assessments for numerous small to large public and private development tracts and public lands. Methods used include habitat mapping and assessment, pedestrian or vehicular surveys, burrow surveys, cavity tree vigils. Biological assessment reports were written to document results. Obtained special purpose incidental take permits from the Florida Fish and Wildlife Conservation Commission.

**Gopher Tortoise Relocations and Permitting for the following projects:**

<b>Off-site Relocations:</b>	
2006	Rainbow Springs Tract A for Villages of Rainbow Springs April
	Citrus Springs Unit 24 for Boyd Armstrong Currently ongoing
	Citrus Springs Elementary A Currently ongoing
	Saratoga South Currently ongoing
	Rainbow Springs Tract F Currently ongoing

**WORKSHOPS, TRAINING, SEMINARS**

**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)