

Carrie E. Kelly

Senior Ecologist/Vice President



Expertise

Wetland Delineation,
Evaluation and Permitting
Environmental Permit
Compliance
Aquatic Systems Evaluations
Wildlife Ecology and
Permitting

Carrie Kelly has a depth of experience in wetland delineation, assessment, and permitting; environmental compliance; aquatic systems evaluation; and water quality monitoring throughout Florida's ecosystems. She has been trained by the Florida Department of Environmental Protection (FDEP) in ambient water sampling and water quality evaluations, including being certified in Habitat Assessments (HA) and Stream Condition Index (SCI). She has also been trained by the Southwest Florida Water Management District (SWFWMD) in the Wetland Assessment Procedure (WAP). Other areas of expertise include wildlife ecology and listed species surveys, permitting, and relocations. She is both a Gopher Tortoise Agent and Registered Burrowing Owl Agent as authorized by the Florida Fish and Wildlife Conservation Commission (FWC). Carrie is actively involved in the Tampa Bay Association of Environmental Professionals (TBAEP) and the Florida Association for Water Quality Control (FAWQC), currently as Vice President.

Education

B.S., Environmental Science,
Edinboro University of
Pennsylvania, 2001

WETLAND DELINEATION, EVALUATION AND PERMITTING

Certifications

FWC Authorized Gopher
Tortoise Agent, GTA-10-
00001
FDEP Lake Vegetative Index
Certification
FDEP Stream Condition Index
and Habitat Assessment
Certification, Current
SWFWMD Wetland
Assessment Procedure
Training, Current
FDEP Groundwater, Surface
Water and Wastewater
Sampling Certification
FDEP Qualified Stormwater
Management Inspector
US Department of Labor
MSHA 30 CFR Part 46 and
Part 48 Certifications
PADI Open Water Diver

Project Manager/Lead Ecologist – Wetland Delineation, Evaluation and Permitting on Various Large Mining, Utility and Residential and Commercial Development Projects, Throughout, Florida

Conducted State (FDEP and WMD's) and Federal (NRCS and USACE) delineation, reviews and wetland assessments using Florida's Uniform Mitigation Assessment Methodology (UMAM) or Wetland Rapid Assessment Procedure (WRAP). Developed, prepared, and submitted application materials to Federal, State and Local regulatory agencies. Worked with large teams including the client, engineers, scientists, and attorneys and participated in agency negotiations.

Project Manager/Lead Ecologist – Mitigation Planning and Implementation on Various Large Mining, Utility and Residential and Commercial Development Projects, Environmental Services, Throughout Florida

Prepared detailed alternatives analysis and negotiations on suitable reclamation and mitigation plans. Also prepared plans and negotiated mitigation conditions, including design of protective buffer zones, hydrologic barrier design, and site design alternatives. Mitigation plans included purchase of mitigation credits from an approved mitigation bank, as well as design of on-site and off-site mitigation, which included planting plans, maintenance and monitoring plans, and natural resource protection plans.

Project Manager/Lead Ecologist – Wetland Delineation, Evaluation, and Permitting on Various Solar Energy Projects, Hillsborough, Manatee, and Clay Counties, Florida

Conducted state (FDEP) and federal (USACE) delineations, agency reviews, and wetland assessments using UMAM. Developed, prepared, and submitted application materials to regulatory agencies. Prepared mitigation plans and alternative analyses and negotiated mitigation options with agencies. Worked with large teams, including clients, engineers, and consultants, and participated in agency negotiations.

ENVIRONMENTAL PERMIT COMPLIANCE

Project Manager/Lead Ecologist – Reference Wetland Selection and Monitoring Plan Preparation and Implementation, South Central, Florida

Managed the selection of and monitoring data collection of high-quality Reference Wetlands as required by Specific Conditions within ERP. Reference Wetland locations and monitoring methods were developed, submitted to and approved by the FDEP prior to implementation. Reference wetlands were sampled in accordance with the approved sampling plan.

Project Manager/Lead Ecologist – Conservation Easement Baseline Inventory Documentation, Central Florida

Completed baseline documentation reports for several large conservation easements consisting of lands to be preserved in their existing state. These efforts included documentation of historic conditions as well as a description of existing habitats and use by listed species.

Project Manager/Lead Ecologist – Mitigation Monitoring, Throughout Florida

Monitored several mitigation areas throughout Florida after permits were issued using both qualitative and quantitative methods. Conducted negotiations with the regulatory agencies to facilitate release from monitoring upon achievement of success criteria, and developed adaptive management plans when necessary.

AQUATIC SYSTEMS EVALUATIONS

Lead Ecologist – Stream Mapping and Evaluation, Hardee County, Florida

Developed a detailed baseline depiction of over 4,000 linear feet of stream on a mine site using a combination of high-resolution aerial imagery and Global Positioning System (GPS) equipment. For conveyances in areas of primarily native upland or wetland land cover, and for conveyances in agricultural areas exhibiting more-or-less natural stream sinuosity, a Trimble sub-meter GPS unit was used to record a track along center of the channel. A morphological assessment of each stream segment was also completed to classify each stream based on Rosgen Classification.

Project Manager/Lead Ecologist – Seagrass and Benthic Habitat Surveys, Franklin County, Florida

Conducted formal seagrass surveys per FWC Recommended Survey Protocols for Estuarine and Marine Submerged Aquatic Vegetation (SAV) for pre and post construction activities. Tasks included mapping and photographing presence of hard bottom benthic communities and presence of seagrass along unconsolidated sandy ocean bottom. Surveys including SAV mapping, species identification, and shoot counts. Appropriate cover class utilizing the Braun Blanquet method are assigned and aerial coverage is determined.

Project Ecologist – Stream Evaluations, Pasco County, Florida

Conducted evaluations of several stream monitoring sites associated with the Pasco County National Pollutant Discharge Elimination System (NPDES) MS4 Permit. This evaluation consisted of biological assessment methods and water quality data collection. Duties included stream habitat assessment, benthic macroinvertebrate sampling, and water quality measurements using YSI data sonde as part of the SCI biological assessment method.

Project Manager/Lead Ecologist – Environmental Management Plan Implementation, Hardee County, Florida

Implemented the Environmental Management Plan (EMP) to satisfy several conditions of a Water Use Permit (WUP). This plan included the installation and monitoring of permanent transects to allow for standardized vegetative, soils, and hydrologic monitoring. Wetland evaluation procedures included WAP, the United States Department of Agriculture Stream Visual Assessment Procedure (SVAP), and UMAM. Data collected during this effort was compiled, organized, analyzed, and stored in a Microsoft Access database as part of the annual environmental monitoring.

WILDLIFE ECOLOGY

Project Manager/Lead Ecologist – Listed Species Assessments on Various Large Mining, Utility and Residential and Commercial Development Projects, Throughout Florida

Conducted surveys for state and federally listed wildlife, including the crested caracara, Florida burrowing owl, Florida grasshopper sparrow, Florida sandhill crane, Florida scrub-jay, red cockaded woodpecker, southeastern American kestrel, wood stork and other state listed wading birds, eastern indigo snake and gopher tortoise. Results were used in the preparation of federal, state and local regulatory submittals.

Project Manager/Lead Ecologist – Gopher Tortoise Surveying, Permitting and Relocations, Throughout Florida

Surveyed, permitted, excavated, and relocated gopher tortoises and gopher tortoise burrow commensals to on-site and off-site recipient sites as an FWC Authorized Gopher Tortoise Agent for a variety of clients and industries throughout Florida.

Project Manager – Florida Burrowing Owl Programmatic Permit, Central Florida

Obtained a programmatic permit from FWC for the Florida Burrowing Owl. Conducted burrowing owl surveys and determined population estimates. Prepared and submitted application materials, including minimization measures and mitigation options. Mitigation options included the development of a six-year burrowing owl study, with FWC approval

Project Manager – Bald Eagle, Osprey and Other Migratory Bird Nest Monitoring, and Removal Permitting, Throughout Florida

Performed wading bird surveys and monitoring of nests, including on cell towers and transmission lines, to determine nest status and breeding site activity. Estimate chicklet age and fledging dates via ground surveys and microdrone surveys. Provide a summary of the regulations concerning work near active nests. Developed a migratory Bird Nest Management Plan for migratory bird nesting on artificial structures owned by several utility companies and obtained State-wide Blanket Migratory Nest Removal Permits from the FWC for utility companies. Collected data and submitted required reporting to FWC and FWS.

PEER-REVIEWED, PUBLISHED PAPERS

Greg Graves, Mark Thompson, Gitta Schmitt, Dana Fike, Carrie Kelly, and Jillian Tyrell. 2005. Using Macroinvertebrates to Document the Effects of a Storm-water Induced Nutrient Gradient on a Subtropical Estuary. *Estuarine Indicators*. CRC Press. Boca Raton, FL. pp 333-349.