

Corporate Resume



Expertise

Wetland Delineation / Evaluation
Listed Species
Environmental Permitting
Water Resources
Geographic Information Systems (GIS)
Land Management
Avian Protection Planning
Stormwater Pollution Prevention Plan (SWPPP)

Certifications

Authorized Gopher Tortoise Agent, FWC
Professional Wetland Scientist, Society of Wetland Scientists (2)
Certified Wildlife Biologist, The Wildlife Society (3)
30 CFR Part 46 and Part 48 Certifications, Mine Safety and Health Administration (MSHA) (16)
Stream Condition Index, Habitat Assessment and Lake Vegetative Index Certifications, Florida Department of Environmental Protection (2)
Wetland Assessment Procedure, SWFWMD (6)
Qualified Stormwater Management Inspector, Florida Department of Environmental Protection (11)
Certified Mining Safety and Health Administration Instructor, MSHA (1)
ISA Certified Arborist

Memberships

Society for Mining, Metallurgy and Exploration (SME)
Florida Limerock and Aggregate Institute (FLAI)
Society of Wetland Scientists (SWS)
The Wildlife Society (TWS)
Florida Association for Water Quality Control (FAWQC)
Florida and Tampa Bay Association of Environmental Professionals (FAEP and TBAEP)
FL Lake Management Society (FLMS)
FL Rural Water Association (FRWA)
FL Stormwater Association (FSA)

Flatwoods Consulting Group Inc. (Flatwoods) is a Florida-based Small Business Enterprise (SBE) specializing in ecology and environmental regulation. Our goal is to provide the highest quality consultation to our clients in a cost-effective manner. Our team of highly qualified scientists and professionals has advanced degrees, professional certifications, and project experience related to many aspects of upland, wetland, and benthic ecology, wildlife surveys, and various types of ecological monitoring, permitting, and mitigation. Flatwoods' staff members have served clients in the southeastern United States for over ten years. Our comprehensive technical approach, in-depth understanding of natural resources and regulatory experience result in invaluable project solutions for our clients. Flatwoods has experience in successfully addressing the complex environmental and regulatory challenges associated with transportation and utilities, mining, agriculture, and municipal projects as well as industrial, commercial, residential, and multi-use developments. The following project examples and associated map summarize the diverse experience of our staff throughout the region.

TRANSPORTATION AND UTILITY PROJECTS

Electrical Transmission Line Rebuild Project, Polk and Highlands Counties, Florida

Conducted a site assessment, wetland delineation, and general and species-specific listed wildlife and plant surveys for a 54-mile transmission line project. We used the results of our field surveys to obtain project approvals and permits from the U.S. Fish and Wildlife Service (FWS), Florida Fish and Wildlife Conservation Commission (FWC), Florida Department of Environmental Protection (DEP), U.S. Army Corps of Engineers (USACE) and local government agencies. These permits included a Bald Eagle Programmatic Nest Relocation Permit (FWS), Temporary Exclusion Permit for Gopher Tortoise Relocation (FWC), Noticed General Environmental Resource Permit (ERP) (DEP), and a Nationwide 12 Permit (USACE).

Gopher Tortoise Survey and Relocation, Natural Gas Pipeline, Various Counties in Alabama and Florida

Conducted standard gopher tortoise surveys and relocations in accordance with the FWC Gopher Tortoise Permitting Guidelines and guidance provided by FWS on several sections of a ±400-mile long natural gas pipeline in Alabama and Florida. The work was conducted on both previously cleared and uncleared rights-of-way and was generally co-located with an existing gas line.

Avian Protection Plan, Various Counties, Florida

Assisted the energy client in preparing an Avian Protection Plan for their Florida Service Area, which covered over 35,000 miles of transmission and distribution lines as well as substations and generation facilities. The plan was designed to reduce avian interactions with transmission and distribution lines, substations, and infrastructure at generation facilities. The avian protection plan will help conserve avian wildlife, reduce client costs associated with avian-related power outages, and maintain client compliance with applicable permits and legal requirements.

Water Quality Monitoring, Citrus and Levy Counties, Florida

Collected water quality field parameters during a 24-hour diel study related to the salinity of the Withlacoochee River. The information was used to determine if the water at a pipeline expansion withdrawal point would be suitable for the necessary hydrostatic testing and associated upland discharge. In addition to methods of collection and water quality data, we provided the client with descriptions of riparian zone vegetation in the immediate vicinity of sampling as well as photographs and Global Positioning System (GPS) data within a letter report.

Benthic Survey and Mapping, Franklin County, Florida

Conducted a benthic habitat survey for the aquatic portion of two open water crossings. Our survey protocol was based on the Guidance for Benthic Habitat Mapping published by the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center, Guidelines for Conducting Offshore Benthic Surveys (DEP), and The Recommended Survey Protocols for Marine Habitats related to Permitting Applications (FWC). The benthic habitat map was submitted to regulatory

agencies in an effort to obtain permits for the project and to serve as a guide for avoidance and minimization of impacts to sensitive aquatic resources.

MINING PROJECTS

Phosphate Mine Expansion, Hardee County, Florida

Coordinated the environmental permitting of a $\pm 7,500$ -acre expansion of an existing phosphate mine through the lead environmental consultant. Our services included the preparation and revision of a Wildlife Habitat Management Plan, Biological Assessment (BA), Reclamation Plan, and Overall Environmental Narrative as well as regular team meetings, conference calls, and agency interactions related to the ERP, USACE Section 404 Permit Development of Regional Impact (DRI), and Section 7 Consultation. Our staff developed portions of the application package and worked with the client and regulatory agencies on the project before joining Flatwoods.

Prescribed Fire Plan, Hardee County, Florida

A new Prescribed Fire Plan was prepared to satisfy a need for fuel reduction and ecosystem restoration within 280 acres of reclaimed upland habitat.

ERP Modification for Limestone Mines, Hernando County, Florida

Assisted in obtaining approvals for three mine expansions. Our services included wetland delineation, wildlife surveys, and preparing ERP applications and Hernando County Master Mining Plan Approval (MAMPA) and Mining Operation Plan Approval (MOPA) submittals. We also served as experts during the Hernando County planning, zoning, and mining approval hearings.

Burrowing Owl Translocation Study, Hillsborough and Polk Counties, Florida

Developed and implemented a study plan for Florida burrowing owls in an effort to document the status of their population. The goals of the study plan were to (1) gather baseline data on the distribution, reproductive success, survival, dispersal, habitat requirements, and food habits of Florida burrowing owls and (2) use the data to evaluate various potential future options to manage Florida burrowing owls. As a part of this effort, Flatwoods staff members participated in the first translocation of burrowing owls in Florida. Staff conducted this work prior to joining Flatwoods.

Environmental Management Plans, Various Counties, Florida

Coordinated the development of Environmental Management Plans to satisfy several conditions of Water Use Permits for clients in Central Florida. These plans include well installation and transect establishment to allow for standardized vegetative, soils, and hydrologic monitoring. Interpretive Reports are typically required annually by the Southwest Florida Water Management District (SWFWMD). Staff conducted this work prior to joining Flatwoods.

Amphibian Translocation Project, Hillsborough, Polk, and Hardee Counties, Florida

Designed, implemented, and managed a multi-year amphibian study comparing unmined land to land that was mined and reclaimed. Remote frogloggers were used to measure breeding activity on 21 sites in Central Florida. Species found to be underrepresented on reclaimed lands were translocated from lands permitted for mining. Staff conducted this work prior to joining Flatwoods.

AGRICULTURAL PROJECTS

Wildlife Surveys and Wetland Delineation, Osceola County, Florida

Conducted detailed wildlife surveys on a large (40,000-acre) ranch in Central Florida. The surveys were for Florida grasshopper sparrow, Audubon's crested caracara, gopher tortoise, Florida burrowing owl, sandhill crane, southeastern American kestrel, bald eagle, wood stork, other wading birds, and Florida scrub-jay. We also delineated all the wetlands on the property and obtained a Natural Resource Conservation Service (NRCS) jurisdictional wetland determination. Staff conducted this work prior to joining Flatwoods.

Wetland Delineation, Highlands and Glades Counties, Florida

Conducted large scale wetland delineation for over 35,000 acres of the ranch. We obtained an NRCS jurisdictional wetland determination for the property. Staff conducted this work prior to joining Flatwoods.

Wetland Compliance, Polk County, Florida

Prepared a Corrective Action Plan (CAP) to prevent downstream water quality impacts in the Peace River Basin. The plan was negotiated with the SWFWMD and included interactive maps and construction-level detail of the restoration of a stream channel/route alteration and removal of fill from a wetland. The plan resulted in a waiver of fines by the SWFWMD and allowed the landowner to continue with Water Use Permitting. Staff conducted this work prior to joining Flatwoods.

Silviculture Oversight, Citrus County, Florida

Prepared a guidance document for pine harvest that followed the 2008 Silviculture Best Management Practice Manual created by the Florida Department of Agriculture and Consumer Services (FDACS).

MUNICIPAL PROJECTS

Gopher Tortoise Relocations, County Park Expansion, Hillsborough County, Florida

Conducted a standard gopher tortoise survey in accordance with the FWC Gopher Tortoise Permitting Guidelines and obtained a Conservation Permit to relocate gopher tortoises to an off-site recipient site. All the gopher tortoise burrows were excavated, and the captured tortoises and commensal species were relocated to the gopher tortoise recipient site.

Ecological Monitoring, Water Supply Wellfields, Hillsborough and Pasco Counties, Florida

Coordinated the ecological monitoring program that was developed for two Central Florida Wellfields. Services included quantitative and qualitative monitoring of vegetative changes (Wetland Assessment Procedure (WAP)), assessment of wetland condition, statistical analyses, aerial photographic interpretation, and analysis of water levels in nearby water bodies to determine potential wellfield effects during drought periods.

Wildlife Habitat Management Planning and Support, Water Supply Wellfield, Pasco County, Florida

Managed the 1,000-acre gopher tortoise recipient site on a Wellfield owned by a regional water supply authority. Prepared and implemented a long-term holistic land management plan for the property that focused on improving the habitat for gopher tortoises. Other faunal species in the plan include southeastern American kestrel, Florida sandhill crane, Sherman's fox squirrel, eastern indigo snakes, wading birds, and gopher frog. Implementation of the plan will restore native upland habitats on the property while successfully reducing the liability associated with high fuel loads. Prescribed burns and mechanical management prescriptions on the property were successfully conducted. The initial efforts related to this project were conducted by staff prior to joining Flatwoods.

INDUSTRIAL AND COMMERCIAL DEVELOPMENT PROJECTS

Commercial Parcel Environmental Permitting, Pasco County, Florida

Provided environmental permitting assistance that included preapplication meetings, wetland delineation verification, responses to Requests for Additional Information (RAIs), gopher tortoise surveys, and participation in agency discussions. This project resulted in approval of a modified Wetland Resource Permit (WRP) issued by the SWFWMD, a Nationwide 39 Permit issued by the USACE, and approval by Pasco County.

Industrial Parcel Environmental Permitting, Citrus County, Florida

Coordinated the environmental permitting on a ±200-acre industrial manufacturing facility. Our services included preapplication meetings with the DEP, SWFWMD, and USACE, a formal determination of wetlands, wildlife surveys, and preparation of permit applications.

RESIDENTIAL DEVELOPMENT PROJECTS

Environmental Permitting, Hillsborough County, Florida

Provided the due diligence, formal wetland delineation, and listed species surveys and permitting for the project. Obtained the wetland permits from the Hillsborough County Environmental Protection Commission (EPC), SWFWMD, and USACE and the listed species permits from the FWC and the Natural Resource Division of the Hillsborough County Planning and Growth Management Department (PGMD). This project is unique in that it required ±12 acres of wetland impacts and resulted in a large preservation area for mitigation. Staff conducted this work prior to joining Flatwoods.

Environmental Permitting, Hillsborough County, Florida

Provided the due diligence, formal wetland delineation, and listed species surveys and permitting for the project in Hillsborough County, Florida. Obtained the wetland permits from the Hillsborough County EPC, SWFWMD, and USACE and the listed species permits from the FWC and the Hillsborough County Natural Resource Division of the PGMD. This project is unique in that it included a contiguous 100-acre habitat preservation and restoration area as mitigation for all the agencies. Staff conducted this work prior to joining Flatwoods.

Mitigation Monitoring, Pasco County, Florida

Conducted mitigation monitoring of three wetland creation areas and one ±25-acre enhancement area adjacent the Anclote River. The monitoring and subsequent agency discussions resulted in successful release of all monitoring requirements.