

# WETLANDS

Services



**BIRKITT**  
ENVIRONMENTAL  
SERVICES, INC.



Birkitt Environmental Services, Inc. (Birkitt) has specialized in wetlands and wetlands mitigation issues since its inception in 1996. An in-depth understanding of the ever-changing rules and regulatory policies affecting wetlands is crucial to navigating through the maze of wetlands permitting. Birkitt staff take pride in providing expert services and strategic advice regarding wetlands issues. Project experience state-wide, with all of the state's five water management districts, the Florida Department of Environmental Protection, and many local governments allow Birkitt staff to provide specialized knowledge to any situation. Birkitt also has extensive federal wetlands permitting experience ranging from wetlands delineation and wetlands functional impact assessment procedures including UMAM, and preparation of NEPA compliance documentation. Birkitt staff have been responsible for the design and permitting of over 15,000 acres of wetlands restoration projects involving hydrologic restoration, exotic species removal, and wetlands creation throughout Florida. Birkitt has highly specialized expertise in wetlands and ecosystem restoration and mitigation bank development.

## ***Key Wetlands Services Include:***

### **Wetland Jurisdictional Delineation**

- State, federal, and local governments
- Forensic jurisdictional assessment
- Industry-leading GPS equipment and software platforms

### **Wetlands Permitting**

- Estuarine and freshwater; herbaceous and forested
- Wetlands functional assessment methodologies (UMAM)
- Environmental Assessments/Environmental Impact Statements
- State, Federal, and local permitting

### **Habitat Restoration, Creation, and Design**

- Creation, restoration and enhancement of wetlands and uplands
- Construction Oversight

### **Monitoring & Management**

- Vegetative Monitoring
- Hydrological Monitoring
- Maintenance Oversight
- Nuisance/Exotic Species Treatment

### **Mitigation & Mitigation Banking**

- Creative practical mitigation for permit compliance
- Cost-effective mitigation solutions
- Mitigation bank feasibility, design, and permitting

*people and nature*

110 S. Edison Ave. Tampa, Florida 33606 813-259-1085 [www.birkitt.com](http://www.birkitt.com)

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## Project Experience

### ***Lake Okeechobee – South Florida Water Management District***

The Lake Okeechobee Isolated Wetlands Restoration and Creation Program (LOIWRCP) was developed to route nutrient enriched water from agricultural lands through restored or created wetlands to remove total phosphorus loading to the lake. LOIWRCP is a voluntary landowner cost-sharing program funded through the South Florida Water Management District, which offers landowners the opportunity to restore wetlands that have been converted to other uses or to create new wetlands in exchange for payment. Birkitt was selected as the leader of a team of professionals comprised of hydrologists, geologists, civil engineers, and surveyors. Birkitt was responsible for the hydrologic restoration of a 400-acre wetland on the Kirton Ranch and a 68-acre wetlands on State owned land near Lemkin Creek. Design and construction were successfully completed for both projects.

### ***Alligator Lake Habitat Restoration***

This project is cooperatively funded by the Southwest Florida Water Management District (SWFWMD) and the Pinellas County Department of Environmental Management (PCDEM). The overall objectives of this ecosystem restoration project include the enhancement, restoration and/or creation of wetland and upland areas surrounding Alligator Lake. The Birkitt team identified key target biotic groups – avifauna, flora, macro-invertebrates, herptiles – and prepared a detailed restoration and management plan focused on proposed biotic benefits of the restoration project. An additional aspect of this project involved the creation of a public access park that will include the development of detailed construction plans and specifications. The Birkitt team is responsible for completion of the design, permitting, and construction management of this project.

### ***San Pedro Bay Mitigation Bank***

Birkitt was responsible for the design and permitting of the 7,000-acre San Pedro Bay Mitigation Bank (SPBMB) in Taylor County, Florida. This mitigation bank is located at the headwaters of the Fenholloway River. Enhancement activities include removal of planted slash pines (*Pinus elliottii*) and installation of low water crossings and ditch plugs to restore site hydrology. To measure changes anticipated to occur as a result of enhancement activities, Birkitt developed and received state and federal approval of hydrology and vegetation monitoring plans. Birkitt is currently providing long-term quantitative and qualitative vegetation and hydrology monitoring services .

### ***Tampa Bay Mitigation Bank***

Birkitt is a partner in the development of the 161-acre Tampa Bay Mitigation Bank (TBMB). Habitat types slated for creation and/or restoration within the TBMB include intertidal habitat (42.2 acres), freshwater wetlands (81.3 acres), wetland hammock (7.8 acres) and open freshwater features (3.8 acres) as well as enhancement of native upland habitat. Andrews Creek, which flows into Cockroach Bay Aquatic Preserve, will be restored through the removal of a concrete weir and nuisance and exotic species within the upper reaches of this waterway. Services provided by Birkitt include environmental evaluations, habitat mapping, wetland creation/restoration design, planting layout, project management, and permitting through local, state and federal regulatory agencies. Permits from the Southwest Florida Water Management District and the U.S. Army Corps of Engineers have been issued. Construction and planting within the intertidal and freshwater habitat has been completed. The bank is meeting all success criteria and estuarine and freshwater credits have been released.

### ***The Reserve at Sweetwater Estuary***

Birkitt performed the wetlands impact assessment, permitting, and development of wetland mitigation plans for a proposed mixed-use development project on approximately 1,291 acres in Taylor County, Florida. State and federal wetlands delineations were conducted by Birkitt scientists in areas affected by recent silvicultural activities. The proposed mitigation for impacts to freshwater forested wetlands includes the preservation of a large forested wetland on the parcel and the use of a mitigation bank. Birkitt is the project manager providing oversight of other consultants. An Environmental Resource Permit (ERP) has been issued. The USACE permit application for a revised site plan has been submitted.

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