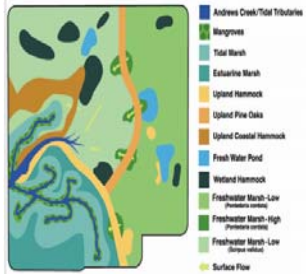


# MITIGATION BANKING

## Services



**BIRKITT**  
ENVIRONMENTAL  
SERVICES, INC.



Birkitt Environmental Services, Inc. (Birkitt) has extensive experience in developing mitigation banks, beginning before the statewide mitigation bank rule of 1994. Notably, Birkitt designed and permitted a 7,000 acre site in north central Florida, the San Pedro Bay Mitigation Bank, and is now assisting in implementation and monitoring of the site. Additionally, Birkitt has experience as a bank developer of the Tampa Bay Mitigation Bank (TBMB), a 161 acre mitigation bank in Hillsborough County. Highly-qualified Birkitt staff include restoration ecologists, former regulatory staff with extensive knowledge of mitigation bank regulations, and experts in wetland mitigation credit assessment. Birkitt provides a full range of mitigation bank services, including initial feasibility analysis, design, permitting with federal, state and local agencies, construction oversight, permit compliance, and long-term monitoring and maintenance.

### ***Key Mitigation Bank Services Include:***

#### **Feasibility Study**

- Mitigation Service Area
- Technical Feasibility
- Permitting Feasibility
- Credit Assessment
- Costs to Develop
- Market Demand
- Credit Value
- *Pro Forma*, Including Projected Annual Return on Investment

#### **Regulatory Coordination/Permitting**

- Pre-Application Prospectus and Coordination
- Mitigation Value-Maximizing Design
- Federal Interagency Review Team Coordination
- Mitigation Banking Instrument
- State and Federal Permits
- Local Government Approval

#### **Construction Oversight**

- Selection and oversight of qualified contractors
- Adaptive management

#### **Compliance, Monitoring and Sales**

- Permit Compliance
- Long-Term Management
- Credit Releases and Sales

*people and nature*

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# MITIGATION BANKING

## *Project Experience*

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

Birkitt is a partner in the development of the 161-acre Tampa Bay Mitigation Bank (TBMB), a permitted off-site mitigation option. The Tampa Bay Estuary Program and SWFWMD's SWIM program identified the TBMB site as a key location for providing significant ecological and water quality benefits to Cockroach Bay and the Tampa Bay region. Intertidal habitat (42.2 acres), freshwater wetlands (81.3 acres), wetlands hammock (7.8 acres) and freshwater ponds (3.8 acres) as well as native upland habitat are being created, restored, enhanced and preserved. Andrews Creek that flows into Cockroach Bay Aquatic Preserve will be restored through removal of a concrete weir and exotic species removal. Birkitt provides environmental, project management, permitting, construction oversight, marketing and credit sales services for the project including design of wetlands restoration and creation area, planting scheme, and coordination with federal, state, and local agencies. The Mitigation Bank has been approved and permits from Southwest Florida Water Management District, U.S. Army Corps of Engineers, and Hillsborough County Environmental Protection Commission have been issued, and credits are now available for sale. Construction is 90% complete. The estuarine portion of the site has been planted and significant natural recruitment of vegetation is occurring. Credit sales are on-going. ***The TBMB was awarded 2<sup>nd</sup> place in the 17<sup>th</sup> Annual Future of the Region Award by the Tampa Bay Regional Planning Council.***

### ***San Pedro Bay Mitigation Bank Design & Permitting***

Birkitt was responsible for project management of a team that included hydrologists, geologists, archeologists, engineers, and biologists for this project. Services encompassed environmental assessments, wetland restoration design, and permitting negotiations for development of a 7000-acre mitigation bank in San Pedro Bay, Taylor County, Florida. Extensive ecological and hydrologic studies were conducted. Tasks included preparation of permit applications and negotiations with state and federal agencies using WRAP analysis for establishment of mitigation credits. Activities included modeling and design of wetland restoration plans, development of success criteria, monitoring of hydrologic and vegetative restoration components, and agency negotiations. Restoration design components include installation of ditch blocks and low water crossings for hydrologic restoration and removal of planted pines for vegetative restoration of the site. The Mitigation Bank Review Team approved a Mitigation Banking Instrument and the Florida Department of Environmental Protection and the US Army Corps of Engineers have issued permits for the Bank. Construction has been completed and credits are being sold, based on documented success in achieving permit criteria. Hydrological and vegetation monitoring is on-going.

### ***Feasibility Analysis of Proposed Mitigation Bank***

Birkitt assisted SWFWMD by developing an extensive analysis of a proposed wetland mitigation bank on 2,500 acres in Hillsborough County, Florida. Included in the analysis were the technical feasibility of wetlands restoration and mitigation bank development, permitting feasibility, credit assessments utilizing WRAP, costs to develop, market demand, and credit values of the proposed mitigation bank. This analysis was instrumental in the resolution of an eminent domain case in which the landowner claimed extensive compensation was due for development of a public water reservoir.

### ***Multiple Mitigation Bank Feasibility Studies, Confidential Clients– Florida***

Birkitt has performed multiple feasibility analyses for proposed mitigation banks in Florida including an assessment of permitting and technical constraints. Duties included research of applicable state and federal regulations and analysis of mitigation bank market, potential service area, credit valuation and preparation of a pro forma. Developed regulatory strategies for establishment of novel mitigation bank concepts as well as traditional wetlands mitigation bank establishment.

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