

Capability Statement



Trusted Economic Solutions

CORE COMPETENCIES

- Natural & Built Environment Strategies
- Surveys & Data Collection
- Econometric Modeling & Analysis
- Statistical Modeling & Analysis
- GIS analysis & data visualization
- Cost benefit & regulatory cost analysis
- Environmental policy

CORPORATE EXPERTISE

Cost-benefit & regulatory analysis, land use change analysis, econometric modeling and natural resource valuation, economic feasibility for habitat conservation. Coastal erosion, coastal resiliency, sea level rise, climate risk analysis, hedonic modeling, watershed & water management analysis, social science public policy, infrastructure, O & M optimization, capital works. Agricultural economics including water/crop/acreage demand estimates, water balance estimates & cost benefit analysis of best management practices including nutrient management.

DIFFERENTIATORS

- **Depth and redundancy of skills:** More than half our staff hold advanced degrees in Engineering, Economics and Environmental Science.
- **Expertise with large geodatabases** (i.e., millions of records), novel programming approaches, and sophisticated modeling software.
- **Proficiency** in synthetic data generation and data visualization.
- **Application of advanced GIS and econometrics** to demographics and resource management issues.
- **Expertise with large geodatabases** (i.e., millions of records), novel programming approaches, and sophisticated modeling software.

PAST PERFORMANCE

Orange County Countywide Stormwater Management Master Plan:

Developed time series and panel data of project data including bid prices and macroeconomic factors affecting FDOT costs. Conducted and analyzed surveys to assess supplier behavior. Prepared descriptive statistics, correlation analysis and cluster analysis across variables to identify hypotheses for modeling, and tested model results for accuracy in replicating historical data and forecasting future data. Final datasets included more than 2 million observations.

Optimization of Street Sweeping: This study evaluated the optimal allocation of resources for street sweeping of more than 5,000 Central Florida streets, with an objective of identifying the optimal combination of frequency, equipment, and sediment targets to maximize nutrient reduction. An index using NLCD tree canopy data was created, impervious runoff coefficients, development density, land use type, and impaired water body information to identify relative nutrient loadings for each segment. Optimal cost allocation was compared to current resource allocation by street

COMPANY DATA

The Balmoral Group was founded in 2004 and offers economic, financial & GIS analysis, with special expertise in the area of public policy, environmental economics, and cost-benefit analysis. TBG's specialties include incorporating public values for externalities of policy alternatives, and GIS analysis of spatially distributed impacts. Professional Engineering staff complete the picture, providing experienced insight into practical applications of regulatory and environmental constraints.

NAICS Codes:

Duns: 182497789	541720 * WOSB
Cage Code: 4YXL0	541330
Size Standard: Small Business	541618
Certifications: WOSB, WBE	541620
	541910
	541990

Clients:

NASA Applied Sciences
NOAA Office of Coastal Management
EPA Climate Ready Estuaries
Florida Department of Agriculture & Consumer Services
Florida Department of Environmental Protection
Florida Department of Transportation
Florida Fish and Wildlife Commission
Florida Governor's Executive Office
Florida Department of Economic Opportunity
Federal Highway Administration
FDOT Central Office, FDOT District One
Virginia DOT
The Gulf Consortium

Water Management Districts: Southwest Florida Water Management District, Northwest Florida Water Management District, St Johns River Water Management District
Tampa Bay Estuary Program
Tampa Bay Water
Tampa Bay Regional Planning Council
Indian River Lagoon Council

Florida Counties:

Orange County, Seminole County, Highlands County, Charlotte County, Hernando County, Clay County, Nassau County, Martin County, St. Lucie County

Universities: University of Central Florida, University of South Florida, University of North Florida

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PAST PERFORMANCE

segment, and recommendations made to reallocate about 20% of funds to improve pollutant reduction by 90 Tons/ year with no additional outlay of funds. The 90 Tons represents about \$18 million in avoided costs.

Stormwater Pond Sustainability Study: Project initiated to investigate feasibility of reducing or eliminating traditional mow-and-spray maintenance for cost and emissions reasons and to create several sustainable pond schemes to apply County-wide based on a matrix of criteria. Selected representative pond site examples from a GIS database of over 1,500 ponds in order to assess pond vegetation concept scenarios with projected costs. Prepared economic benefits associated with alternative concepts including avoided costs and community or environmental benefits. Based on the economic analysis of the individual pond scenarios, the cost-benefit was extrapolated on a county-wide basis based on pond feasibility (issues, criteria, constraints). Demographic and site variables that may influence successful implementation were incorporated into the analysis to allow for spatial variability across the County.

Bay County Stormwater Strategic Plan and Stormwater Master Plan Update

The Balmoral Group was retained to provide support for the updates to Bay County's Stormwater Strategic Plan of 1994 and Master Storm Drainage Plan of 1997. The goal of the Strategic Plan is to prioritize goals and provide strategies for a 5-year program and another 5-year outlook. Tasks include analyzing the current County funding structure including the terms of the stormwater utility fee, and providing recommendations for additional funding options.

Leon County Engineering Services-Comprehensive Wastewater Treatment Facilities Plan

Onsite treatment and disposal systems nutrient loadings in Leon County have been linked to surface water quality violations in the Upper Wakulla River by way of Wakulla Spring. The nutrient loadings also are a concern for Leon County surface waters subject to Total Maximum Daily Loads (TMDLs) for exceeding state concentration limits. The County sought an evaluation of alternative wastewater treatment technologies to reduce nitrogen loadings, including identification of construction and operating costs and the cost-effectiveness per pound of nitrogen reduced per household. The Balmoral Group teamed with Jim Stidham Associates, TetraTech and Applied Technology & Management to prepare a comprehensive wastewater treatment facilities plan to guide the selection of treatment options in the unincorporated county and to tabulate the nitrogen reduced by plan implementation over a twenty-year planning horizon

NFWFMD Miscellaneous Economic Analysis - Update to the Region II Regional Water Supply Plan

Estimated 2012 service area populations for northwest Florida public supply utilities including separate values for permanent and seasonal populations, Annual average persons per household estimates separately for seasonally and permanently occupied residential units, by utility, county, water supply planning region, and for the District. The data was compared and contrasted with population data developed by the U.S. Census and the University of Florida Bureau of Economic and Business Research (BEBR).

Miami Dade County Waterfront Recreation Access Plan: Recognizing the importance of an environmentally sound, competitive and accessible waterfront as critical to a model park system, Miami-Dade County adopted a Park and Open Space Master Plan (OSMP) in 2008, a 50-year vision for a healthy, livable and economically prosperous community that includes a balance of recreational resource access to the waterfront through parks, public spaces and destinations, natural areas and water trails. Tasks include participation in public workshops, review and comments for an online and phone Needs Assessment instrument and economic impact recommendations.

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