Bay PRP 2014-044

ECONorthwest provides professional economics, planning, and financial consulting services and expert testimony for a wide variety of private and public sector clients throughout the United States and worldwide. We have earned a global reputation of excellence for our technical expertise, communication skills, and exceptional client service.

P.M. Stormwater provides a full range of stormwater management services. We are an association of engineers and life science experts that provide "cradle to grave" service to clients for their stormwater management needs in the Bay County, Florida area.

BANKING ON GREEN: A Joint Report by American Rivers, the Water Environment Federation, the American Society of Landscape Architects and ECONorthwest, dated April 2012. A look at how green infrastructure can save municipalities money and provide economic benefits community-wide. http://www.americanrivers.org/assets/pdfs/reports-and-publications/banking-on-green-report.pdf

Project description

We propose an economic comparison and evaluation of the available approaches to water quality and habitat needs for Bay County, to identify those that can provide the highest, broadest, and longest-lasting suite of benefits to residents and visitors impacting the local economy. A 2009 study provides extensive biophysical and engineering data as a starting point to consider the needs and options, expanding to consider green infrastructure, low-impact development, and ecosystem services.

St. Andrew Bay Watershed Stormwater Management Plan, dated May 2009

The overall objective of the SABW Stormwater Management Plan COOP Project is the development of an ecologically-effective, socially-effective, and cost-effective holistic watershed management plan.

By ecologically-effective it is meant that the management plan adequately addresses water quality of stormwater reaching the Bay.

By socially-effective it is meant that the management plan adequately addresses water quantity challenges such that flooding of urban areas is alleviated and that public access and safety are maintaining during most storm events, with catastrophic hurricanes being a possible exception.

By cost-effective it is meant that the management strategy employs practicable techniques to achieve the greatest financial benefit-to-cost ratio practicable.

https://www.dropbox.com/s/6tatplgpvz8774m/SWMgmtPlanFinalRpt.pdf?dl=0

ST. ANDREW BAY WATERSHED SURFACE WATER IMPROVEMENT AND MANAGEMENT PLAN, dated September 2000

The St. Andrew Bay watershed plan takes a basin perspective to address priority issues. These are identified as growth management, nonpoint source pollution, point source pollution, chemical contamination, biodiversity, public outreach, and management of the Deer Point Reservoir basin.

http://www.nwfwmd.state.fl.us/system/assets/70/original/St.AndrewBay_SWIM_Plan.pdf

Bay County RESTORE Act Advisory Committee meeting presentation, November 12, 2014.

ECONorthwest
ECONOMICS • FINANCE • PLANNING

DATE: October 21, 2014

TO: Bay County

FROM: Mark Buckley, ECONorthwest

SUBJECT: SCOPE OF WORK, BAY COUNTY WATER QUALITY AND HABITAT RESTORATION EFFICIENCY ANALYSIS

Overview and Objective

Bay County, Florida sits on the Gulf of Mexico and was affected by the Deepwater Horizon oil spill. Funds are available to mitigate these detrimental effects on water quality and habitat in Bay County, and the associated direct and indirect benefits to residents and tourists of a clean, functional, and attractive natural landscape. Bay County recognizes the value of this opportunity to develop and implement a holistic plan to achieve the most benefits possible through these mitigation efforts. Public investments can serve narrow functions, or diverse multiple benefits. They can address short-term needs, or long-term trends and emerging preferences and scarcities. And when diverse benefits are possible, a broader coalition of contributors and supporters can become involved, representing both public and private interests.

Bay County is interested in an analysis of available approaches to addressing water quality and habitat needs appropriate for use of public oil spill mitigation funds that can provide the highest, broadest, and longest-last suite of benefits to residents and visitors impacting the local economy. A 2009 study provides extensive biophysical and engineering data as a starting point to consider the needs and options, while the expanding literature and experience in such areas as green infrastructure, low-impact development, and ecosystem services provide examples, evidence, and empirical data to consider tradeoffs among alternatives. A successful project will identify a roadmap with short-term next steps and long-term strategies to achieving the most potential from these public investments, that helps establish characteristics and conditions for Bay County that are supportive of a vision for the community based around high quality of life, a resilient economy, and a clean and attractive environment.

Our approach

ECONorthwest is an economics-consulting firm with decades of experience in natural resource management and policy design. Our work addresses decisions concerning tradeoffs and benefit opportunities across the U.S. and beyond, with particular focus on water, habitat, and ecosystem services. We will take a systematic approach that centers on the steps:

1. Identify local environmental problems that need to be addressed under mitigation funding requirements
2. Identify and categorize available approaches to addressing these problems
3. Identify and describe benefits available under each approach (or portfolio approach)
4. Align these benefits with beneficiary groups and characterize scarcities

5. Quantify major benefit categories in scalable terms and based on local demand and scarcity
6. Articulate long-term strategy principles
7. Highlight consistent and appropriate near-term actions

This approach will rely upon a combination of reviewing regional and local datasets and reports, combined with our understanding of benefits and results generated elsewhere. It will also include extensive communication with local experts to properly understand options, benefits, and interactive effects.

TASK 1: CONTEXT AND NEEDS

Describe the damages caused by the oil spill and the long-term trends for the affected water and habitat resources. Investigate and characterize the importance of these resources to the Bay County natural environment, residents, and local economy. Highlight other drivers of quality and threat to the target resources.

TASK 2: OPTIONS AND CHARACTERISTICS

Identify and summarize the options for addressing past, ongoing, and emerging harms and threats to the target water and habitat resources. Review and summarize experiences with these techniques in Bay County and elsewhere, with emphasis on contexts similar to Bay County. Categorize effects of options, and metrics for these effects.

TASK 3: BENEFITS AND BENEFICIARIES

Align the effects of options characterized in Task 2 with benefits and demands in Bay County. Identify drivers of value such as availability and quality of substitutes and complements. Align beneficiary groups and consider pathways and manifestations of value as observed and experienced by them. Consider group-specific values, and opportunities to support and contribute.

TASK 4: OPTION COMPARISON AND PORTFOLIO CONSIDERATION

Develop a matrix for comparison of options, and summarize build-out potential by approach. Consider and explain portfolio implications for combinations of options. Consider categories of emergent benefits and long-term effects from implementation.

TASK 5: STRATEGIC PRINCIPLES

Articulate insights and management principles that emerge from consideration of options and benefits available to Bay County from the various approaches that address water quality and habitat needs. Identify both general, long-term principles and guidance for near-term steps. Explain and quantify the benefits associated with successful implementation.

TASK 6: NEAR-TERM ACTIONS

Identify, explain and describe the values attributable to at least one near-term project or program opportunity. Explain important factors involving partnering, communication, funding, and long-term maintenance for performance success across multiple benefit categories.