

# **ST. JOHNS RIVER ECONOMIC VALUE ASSESSMENT**

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# TIMETABLE

- Funds (400K) designated by Florida Legislature 2013.
- Ecosystem Services approach preferred where appropriate.
- Workshop held April 8, 2014 at UNF.
- Workshop examined Ecosystem Services Approach – What is can and cannot do!
- Workshop attendees selected priorities for funding.
- Proposals invited, reviewed and selected May, 2014.
- Contracts finalized June 2014.
- Completion December 2014.

# Workshop Presentations

- **"Science, Human Values and the Conservation of the St. Johns River Basin"** – Dr. Michael Orbach, Professor, Nicholas School of the Environment, Duke University.
- **"Ecosystem Services Valuation: What the approach will and will not do"** Dr. John Whitehead, Professor, Department of Economics, Appalachian State University.
- **"The St Johns River Basin and Database"** Ed Lowe, Chief Scientist, St Johns River Water Management District, Palatka, Florida
- **"The Potential of Choice Modeling to Inform the Policy Process"** - Dr. James R. Kahn, Professor of Economics and Environmental Studies, Washington and Lee University.

# Priorities

Seven of Eleven Funded

[emboldened items were selected for funding]

- **Using models of river flows and natural processes, develop a simple conceptual model that can be used to show where value is generated within the river and its connected environs.**
- **What is the economic value of riparian wetlands, upstream and downstream, in terms of flood abatement? What would flood zones look like without riparian wetlands? How would this alter flood insurance rates?**
- **What is the economic value of riparian wetlands in reducing nutrient loading (primarily nitrogen and phosphorus) along the entire river?**
- **What is the increase in tax values associated with proximity to the St Johns River to counties and municipalities? Does lower water quality, e.g. toxic algal blooms, impact property (and tax) values?**
- **The St Johns River is a source of water for industry and increasingly, for domestic use as well. How much economic value does that bring to the region and state? Does reduced water quality increase costs to those using water from the river? Is there a cost-benefit from upstream efforts to reduce nutrient inputs to the river? Does upstream use of water and discharge have downstream cost-associated impacts?**

# Priorities

(continued)

- **What is the economic value of recreation along the freshwater portions of the St Johns River, river and lakes?**
- **Ecotourism is a growing industry in Florida, but relatively limited in the SJR. What is the current value of ecotourism and what is the potential economic value to the region if ecotourism is fully developed for the SJR?**
- What is the economic impact of other water dependent industries along the river? Besides marinas, ship repair, and other vessel related activities, is there increased economic activity from river-associated restaurants, festivals or other non-traditional water associated uses?
- Is there an economic cost from direct impacts to human health from decreased water quality? Is there a way to calculate the current economic cost as well as future costs given a variety of scenarios? Will demographic changes along the river increase demand and increase costs to maintain the status quo with respect to major environmental events?
- The lower SJR is nursery habitat for a large number of marine fish, shrimp and crabs. The vast majority of these species are either caught in the nearby coastal waters or form the base of coastal food chains that fuel a large commercial and recreational fishery. Can these values be calculated based on primary productivity within the river, assuming associated multipliers for recreational and commercial fishing? Much of this occurs outside of the river itself, but would not exist without the river.
- Generate an overall conceptual model of economic output from the SJR. How do different components of the river ecosystems generate economic values to local, regional and state economies? Using estimates from other rivers and regions, can an economic skeleton of the river be developed that can provide some scale of potential value to the economy for the SJR?

# Selected Proposals

- University of Central Florida (two priorities)
- University of Florida (two priorities)
- Indiana University
- Seagrass Ecosystems Analysts
- Balmoral Group

Questions?