Workshop Summary

Monday, December 10, 2012, 1:00pm – 4:30pm
The Use of Ecosystem Service Valuation in Decision Making: Case Studies from the Public and Private Sector

Workshop Overview:
Public agencies and private corporations have a need to integrate ecological, financial, and social values in their natural resources decision-making processes. Accomplishing this task enhances ecosystem protection, investment, and management. As the both public and private sector becoming increasingly aware of ecosystem service values, new tools and analytics have emerged to incorporate them in decision making.

This workshop will demonstrate the conceptual frameworks, tools, and methods used in practice by public and private entities are using to value ecosystem services and the implications of their decisions on complex biological and social systems. The workshop includes five case studies that demonstrate strategic management solutions applied to the realm of ecosystem service valuation.

Specific technical issues to be discussed over the course of the workshop include:
- Quantifying potential costs and benefits associated with, adding or eliminating regulations,
- Developing pricing methods to internalize ecosystem values,
- Developing methodologies and frameworks to support management and policy decisions, and
- Facilitating internal stakeholder meetings to elicit resource values and build consensus

Case Studies:

Case Study #1: Ecosystem Services Valuation in South West Florida

Presenter(s): Jay Yingling, Southwest Florida Water Management District
Rush Childs, Cardno ENTRIX

The Southwest Florida Water Management District (District) is reviewing its land holdings and evaluating how they support the District’s core mission areas, provide recreational opportunities, generate revenue, and support economic activity. The project supports a comprehensive analysis of the benefits of the ecosystem services provided by District land holdings. The District has identified major types of ecosystems and related services and has developed a valuation framework for each of the District’s four core mission areas: water supply, water quality, flood control, and natural systems. This presentation will describe the approach used to screen parcels and identify benefits in three of the four Districts’ core mission areas (i.e., water supply, water quality, and flood control).

Case Study #2: Ecosystem Service Valuation in Recreational Planning

Presenter: Barbara Wyse, Cardno ENTRIX

In 2010 the Tennessee Valley Authority (TVA), quantified and prioritized the benefits of four Natural Resource Plan (NRP) management alternatives for recreational resources on 293,000 acres of TVA-managed lands. This joint presentation will outline the framework used to identify and quantify the types of benefits produced on TVA-managed lands, and describe the role of ecosystem valuation in the recreational planning components of TVA’s NRP.

Case Study #3: Quantifying and Managing Ecosystem Services in Urban Landscapes

Presenter: Suzanne Ozment, World Resources Institute
World Resources Institute (WRI) is collaborating with John Deere, Syngenta, and Cardno ENTRIX to develop a framework that quantifies, values, and informs management of ecosystem services in urban landscapes, especially relevant for turfgrass management. This presentation will introduce an ecosystem services conceptual framework to quantify and value turfgrass-related ecosystem services, describing how the framework can support management and policy decisions.

**Case Study #4: The Importance of Better Water Valuation to Business**

**Presenter:** Ed Pinero, Veolia Water (World Business Counsel for Sustainable Development)

Recognizing a proper value for water (different from its price) is a critical challenge for all businesses that attempt to integrate water issues into operational and supply chain planning. WBCSD member companies are building a business case for the private sector to drive water pricing that reflects its true value. Learn about their new business guide on water valuation, which highlights the main applications and appropriate methodologies for valuing water in a corporate context.

**Case Study #5: Expert Elicitation and the Value of Natural Systems in South Florida**

**Presenter(s):** Doug MacNair, Cardno ENTRIX  
Stuart Norvell, Cardno ENTRIX

South West Florida Water Management District (District) is seeking to identify and value major types of ecosystem services provided by natural systems on District land holdings. However, the value of natural systems on District lands is too unique to rely solely on benefit transfer methodology (i.e. literature values). As an alternative to more expensive methods (e.g. large scale study), an alternative approach was used to elicit expert judgment and estimate the value of natural systems relative to the services that have dollar values. This presentation will describe the process for facilitating expert elicitation and valuing natural systems on District lands.

**Target Audience:**

The proposed workshop will demonstrate applied ecosystem service valuation tools and methods. Academic scientists and economists, practitioners, resource managers, and environmental decision makers will have an interest in attending the workshop. Audience members will be exposed to variety of strategic management solutions and methods.

**Conference Themes:**

The workshop aligns well with the overarching theme the conference: Linking science, practice, and decision making. In addition, the workshop with overlap with other conference themes such as:

- Spatial analysis: ecosystem service production, flows, and benefits
- Measurement and valuation
- Tools for decision makers
- Ecosystem services an policy analysis
- The role of federal, state, and local agencies
- The role of the private sector

**Agenda:**

Introduction, Background, and Goals-- Dr. Doug MacNair
Workshop Presenters:

1. Jay Yingling, Senior Economist  
   Rush Childs, Staff Economist  
   Organization: Southwest Florida Water Management District  
   Topic: Assessing ecosystem service values on District lands

2. Barbara Wyse, Senior Project Economist  
   Organization: Tennessee Valley Authority,  
   Topic: Assessing ecosystem service values in TVA’s Natural Resource Plan

3. Ed Pinero, Executive Vice President and Chief Sustainability  
   Organization: World Business Counsel for Sustainable Development  
   Topic: The Importance of Better Water Valuation to Business

4. Suzanne Ozment, Associate | Business & Ecosystems  
   Organization: Water Resources Institute  
   Topic: Quantifying and managing ecosystem services in urban landscapes

5. Doug MacNair (Session Organizer), Practice Leader, Natural Resource Economics  
   Stuart Norvell, Senior Project Economist  
   Organization: Cardno ENTRIX  
   Topic: Expert Elicitation and the Value of Natural Systems in South Florida

Workshop Organizer:  

Doug MacNair  
Technical Director and Principal / Practice Leader - Natural Resource Economics  
Cardno ENTRIX

Dr. MacNair is the Practice Leader for Business Solutions and Risk Management. The practice focuses on helping clients value environmental and natural resource services in their decision making. He helps industrial clients identify and manage business sustainability using multi-criteria decision analysis to evaluate and prioritize financial, human-health, environmental, and corporate reputation risk. He facilitates focus groups of corporate executives and staff to develop risk management strategies. He also develops comprehensive cost-benefit analyses that include recreational benefits such as fishing, hiking, and hunting.

Dr. MacNair is an environmental economist with extensive natural resource damage assessment (NRDA) experience. He has managed numerous human-use NRD assessments involving both original data collection and benefits transfer techniques. He has designed recreational surveys, managed large scale data collections, designed and estimated econometric models, and participated in negotiations with trustees. Dr. MacNair has over 25 years of experience. His research has been published in Land Economics, Forest Economics, and Marine Resource Economics. Prior to specializing in environmental economics, Dr. MacNair was Associate Director, Economic Research for the NASDAQ over-the-counter stock market.