

**ACES 2018 Pre-Conference Morning Workshop**  
**December 3, 2018 | 8:30am – 12:00pm**

***TITLE***

Hands-On Ecosystem Services: Interactive Training of the ESII (Ecosystem Services Identification & Inventory) Tool

***DESCRIPTION***

This interactive, half-day training, delivered by EcoMetrix Solutions Group, will introduce participants to the ESII Tool. The ESII Tool (pronounced “easy”), was developed in collaboration by Dow, TNC, and EcoMetrix Solutions Group, and is owned by TNC. ESII is a free assessment tool that provides information that can lead to better decisions and better conservation outcomes. It fills an important gap between simple tools built upon limited scientific information and complex tools that require expert users. Designed for natural resources managers, engineers, business managers, and ecologists alike, the tool can be used in the early stages of decision making to identify benefits provided by natural assets so that their value can be incorporated into operational and planning decisions. The ESII Tool can be used in site planning, impact assessments, cost/benefit analyses, or to compare alternatives. Outputs from the tool can be used directly in financial analyses or engineering models. The tool consists of the iOS-based Field App, used to collect ecological information on site, and the web-based Project Workspace, where projects are set up, data is reviewed, and outputs are generated.

The objective of the morning workshop will be two-fold. First, to provide participants with an understanding of the modeling structure of the Tool, and the scientific framework through which it was developed. Second, the workshop will provide participants with an introduction to using the primary components of the tool— the ESII Project Workspace and the ESII Field App. This includes project site set up, data collection, reviewing collected data, and generating results.

In previous applications of this workshop ESG has used actual nearby natural areas for the second portion of the training, including going to the nearby natural area to do data collection. Because of uncertainty about weather conditions and access to natural areas, ESG will use a “virtual case study” for this portion of the training. Participants will apply the ESII Tool to an actual site that ESG staff will have documented through photos and videos. In addition, where applicable, we will have samples for participants to interact with (e.g., soil samples)

This workshop is related to the afternoon workshop “The ESII Tool in Practice: Using the Results of the ESII Tool for Multiple Applications”. Participants are encouraged to attend both, but it is not required because each workshop is stand alone.

***BENEFITS OF THE WORKSHOP AND TARGET AUDIENCE***

This workshop is relevant for individuals and organizations interested in identifying and assessing ecosystem services on a given site quickly and inexpensively. These may be planners, engineers, facilities managers, and natural resource managers interested in using decision-support tools for a wide range of activities including: assessing site designs and alternatives; assisting with restoration projects; creating an inventory of natural assets; scoping impact assessments, comparing green vs. gray infrastructure; and supporting dialogue and engagement with local communities. The ability to conduct ecosystem service evaluations quickly and inexpensively is critical for any enterprise or municipality that wishes to incorporate the value of nature into their operations and decision making.

## **AGENDA**

- 8:30-8:45a      Welcome & Workshop Objectives  
*Review workshop objectives, format and agenda and introduce facilitators.*
- 8:45-9:20a      Overview of the ESII Tool  
*The overview will introduce the purpose of the Tool and where it fits within the pantheon of ecosystem service tools. It will also provide an overview of the ESII Tool structure and design. In addition, the overview will include discussion of the logical structure of the Tool, how the models fit together, development of the models, and how the models are used in scoring.*
- 9:20-9:40a      Introduction to the ESII Project Workspace  
*Using the virtual project site, ESG will introduce and demonstrate how to use the ESII Project Workspace, a web-based interface where users create a project site, the data collection area, and map units.*
- 9:40-10:00a      Introduction to the ESII Field App  
*Introduce and demonstrate the ESII Field App. Present the data collection process, from pre-field work to answering specific survey questions within the App.*
- 10:00-10:30a      Break
- 10:30-11:30a      Data Collection with the ESII Field App  
*Using the prepared materials (videos, photos and sample), participants will be led through a data collection process, including using the ESII Field App to verify, edit and create map units, and collect physical attribute data.*
- 11:30-12:00p      Review Collected Data and Results  
*The collected data will then be uploaded to the ESII Project Workspace for data review and results generation.*

## **WORKSHOP ORGANIZERS**

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Name: Morgan Erhardt

## **WORKSHOP ORGANIZER QUALIFICATIONS**

Pre-Conference Workshop: Hands-On Ecosystem Services: Interactive Training of the Ecosystem Services Identification & Inventory (ESII) Tool

**Kevin Halsey** | As a Senior Consultant with EcoMetrix Solutions Group (ESG), Kevin oversees development of ecosystem services decision support tools created by the firm. His work with ESG focuses on integrating ecosystem services into decision making processes and, in that role, much of his time is devoted to developing strategies for measuring ecosystem service production and for addressing uncertainty. In addition to his responsibilities working with ESG, Kevin is an adjunct professor at Lewis and Clark Northwestern School of Law, where he teaches a course on identifying and managing environmental risk in business transactions. Kevin also teaches courses on ecosystem services and land management for the University of Oregon's Sustainability Leadership Program.

**Kenna Halsey** | As a Senior Consultant with EcoMetrix Solutions Group (ESG), Kenna is the founder and owner of EcoMetrix Solutions Group, LLC, an Oregon firm (DBE, WBE, ESB certified) focused on the development and application of ecosystem services-based quantification strategies and decision support tools. She specializes in the development and implementation of new programs, particularly those related to ecosystem services evaluation, impact avoidance and minimization, and impact mitigation. She has 27 years of experience providing program-level and project-level natural resource planning services. Kenna's diverse experience includes designing long-range sustainability strategies focused on project implementation; management and development of detailed, alternative natural resource mitigation and conservation approaches and associated accounting systems; and development of habitat assessment methodologies for terrestrial and aquatic habitats. Her most recent work includes managing ecosystem services assessments and the development of ecosystem service quantification tools for Fortune 500 corporations and NGOs who are exploring the use of ecosystem services concepts and measurement tools in their project-level decision making processes throughout the US and worldwide.

**Morgan Erhardt** | As an Ecosystem Services Analyst with EcoMetrix Solutions Group (ESG), Morgan helps develop and support the ecosystem service tools ESG creates for clients and partnering organizations. Morgan provides a key role through the application of Bayesian analysis principles to the ecological concept models and algorithms within the quantification tools developed by ESG. Morgan is also responsible for providing ongoing technical support for ESII Tool users through the ESII Tool help desk. In addition, Morgan has played a key role in the ecosystem service analysis ESG has provided for clients throughout the US and around the world.