

ACES 2016 Pre-Conference Workshop
Monday, December 5, 2016 | 1:30pm – 5:00pm

Title: *The ESII Tool in Practice: Using the Results of the ESII Tool for Multiple Applications*

Description: This interactive, half-day training, delivered by The Nature Conservancy, The Dow Chemical Company and 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.

Using real-world examples, participants will explore how information about ecosystem services can inform decision-making in a variety of planning and decision contexts. Results from the ESII Tool, in both engineering units and ecological performance measures, will be provided for a set of scenarios, and participants will learn how to apply an ecosystem services analysis framework to business propositions and questions, and how different units of measure can be effective for understanding the relative changes in ecosystem services for respective scenarios. The workshop will close with an in-depth look at Dow’s experience applying the ESII Tool for a greenbelt restoration project at one of its facilities.

This workshop is related to the morning workshop “Hands-On Ecosystem Services: Interactive Training of the Ecosystem Services Identification & Inventory (ESII) Tool”. Participants are encouraged to attend both, but it is not required because each workshop is stand alone.

Agenda

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| 1:30-2:00p | Welcome & Workshop Objectives
<i>Review workshop objectives, agenda and introduce facilitators. Summarize related ESII Tool workshop¹, discuss participants’ decision contexts for using the ESII Tool or similar decision-support tools.</i> |
| 2:00-2:35p | Introduction to the ESII Tool
<i>Provide an overview of the ESII Tool, with focus on the types of measurement units provided by the tool.</i> |
| 2:35-3:00p | Exploration of Various Planning Contexts
<i>Each table will represent a specific decision context (for example alternative landscape design for the Hyatt, comparison of green vs. grey infrastructure,</i> |

¹ This is a summary of the morning workshop “Hands-On Ecosystem Services: Interactive Training of the Ecosystem Services Identification & Inventory (ESII) Tool”.

assessment of remediation options, cost-benefit analysis of proposed activities or designs, etc.). Facilitators will lead discussion of challenges for each decision context: what are the project objectives? What are the priority ecosystem services? How does applying an ecosystem services lens reframe the question?

- 3:00-3:30p Break
- 3:30-3:45p Continuation of Previous
- 3:45-4:15p Using the ESII Tool Outputs
Present the ESII Tool outputs for each decision context. Facilitators will lead discussion for each: which unit of measure is most effective for illustrating the change in ecosystem services for each scenario?
- 4:15-5:00p Case Study: Greenbelt Restoration at the Dow Chemical Company
Present The Dow Chemical Company's experience using the ESII Tool to explore restoration options for a portion of greenbelt at one of its facilities. Follow up with Q&A with the participants.

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.

Outputs from the ESII Tool can improve management decisions, while enhancing an organization's stewardship of nature and commitments to community success. Using the ESII Tool also increases awareness of the value of natural lands and waters, provides ideas on how to enhance land use designs, and triggers more detailed analyses of nature and the benefits provided by nature on a site.

Workshop Organizers

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Qualifications

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.

Jennifer Molnar | Jennifer Molnar is managing director and lead scientist of The Nature Conservancy's new Center for Sustainability Science, providing thought leadership on improving society's ability to create a more sustainable future for nature and people. She has more than 15 years of experience working to apply science to decision-making in both the private and non-profit sectors, including leading global teams of Conservancy scientists and economists dedicated to cutting-edge research and practice around the connections between nature and people, most recently as the Director of Science. She is the science lead for the TNC-Dow Chemical Company collaboration, work that led to Dow's ground-breaking Nature Goal. She is editor and a lead author of *The Atlas of Global Conservation* (University of California Press, 2010). Jen received a master's degree from Yale's School of Forestry and Environmental Studies, a B.S. in environmental engineering from Harvard, and has previous private sector experience in hydrology and environmental remediation.

France Guertin | France Guertin serves as Dow Chemical's Engineered Natural Technologies Program Manager for the Environmental Footprint Solutions Group. In this role, France works with manufacturing sites and businesses to identify and implement business-driven projects that plan, manage and invest in smarter, more productive ways that fit seamlessly within Nature. She also serves as the technical lead within the Dow/TNC collaboration and Dow's Nature Team responsible for implementation of Dow's new 2025 Valuing Nature Goal. This goal aims to generate \$1 billion (as measured in NPV) in cost savings or new revenue through projects that are good for business and the environment. Prior to joining the Global Environmental Technology Center, she worked in various technologies and manufacturing roles for Dow both the US and Canada. France has also worked in the renewable energy sector with Northern Power Systems and a non-profit organization, the Pembina Institute in Calgary, Canada. France holds a bachelor's degree in Chemical Engineering, a Masters in Environmental Studies and is a certified practitioner of biomimicry.

Morgan Erhardt | As a consultant with EcoMetrix Solutions Group (ESG), Morgan specializes in communicating complex concepts to diverse stakeholders and developing clear, concise and detailed approaches to complicated ecosystem services and habitat exchange projects. He is responsible for model and tool development in a variety of technology suites which includes communication of development progress, facilitation of technical feedback sessions, incorporation of feedback into the development workflow, and final system testing. Morgan was previously with ENSR/AECOM in Seattle, WA, where he worked on groundwater petroleum mitigation projects in the Pacific Northwest and FEMA disaster recovery projects throughout Florida. Morgan received his master's degree in Oceanography with an emphasis on decision support tool development and his bachelor's degree in Geology at Oregon State University.