

ACES 2014

A Community on Ecosystem Services Linking Science, Practice and Decision Making

December 8-12, 2014 | Washington, DC

www.conference.ifas.ufl.edu/aces



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Welcome to ACES 2014!

On behalf of A Community on Ecosystem Services (ACES) and our partners in Ecosystem Markets and the Ecosystem Services Partnership (ESP), we welcome you to the ACES 2014 Conference! Ecosystem services science and practice continues to advance, and the ecosystem services community continues to expand. The ACES conference has grown along with the ecosystem services community and includes sessions addressing a broad range of topics, methods, and practices. ACES 2014 includes sessions on biophysical science and the production of ecosystem services, the interrelationship between human well-being and ecosystem services, the impacts of climate change on terrestrial and marine ecosystems and services, monetary and non-monetary valuation techniques, the development of market-like structures, and the role of Traditional Ecological Knowledge.

ACES 2014 extends over five days and will include 15 pre-conference workshops, six plenary sessions, 14 town halls, as well as hundreds of oral presentations and posters. ACES continues to include the research, resource management, conservation, entrepreneur, policy, and Native American communities in government, non-profits, academia, and the private sector. There will be over 500 participants at ACES 2014 from over 30 nations, including leaders from all levels of government, NGO's, academia, and the private sector.

ACES 2014 has a track of sessions focused on ecosystem services and federal policy, organized by COMPASS, with guidance from the Executive Office of the President. Also of note will be presentations and posters from around the world including developing countries, and on topics related to urban ecosystem services and their valuation. This conference will once again provide a venue for synthesizing the research, methods, tools, policies, and cultural values needed to more routinely and effectively incorporate ecosystem services into resource management, conservation, restoration, and development decisions.

We wish to thank the partners and the Planning and Program Committee members for their exceptional efforts to make ACES 2014 a success. Their insights and support are greatly appreciated, and this conference could not have happened without them. In particular, we are grateful for the continued outstanding efforts of the staff of the University of Florida, IFAS Office of Conferences and Institutes in organizing the logistics and making this conference possible, and the strong leadership of Jasmine Garcia and Jhanna Gilbert in this endeavor.

We anticipate that ACES 2014 will provide many opportunities to share science advances and state-of-the-art practices and to continue the dialogue and information sharing within the ecosystem services community. As always, we encourage you to attend sessions that are outside of your field, network, meet old friends, and establish new interdisciplinary relationships.

Thank you for attending ACES 2014!

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A Special Thank You to Our Conference Partners

Cascadia Ecosystem Services Partnership

COMPASS

Council on Food, Agricultural and Resource Economics

Defenders of Wildlife

Duke University, Nicholas Institute for Environmental Policy Solutions

Ecosystem Services Partnership

Electric Power Research Institute

ENVIRON International Corporation

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RTI International

The Freshwater Trust

U.S. Department of Agriculture, Office of Environmental Markets

U.S. Department of the Interior, Bureau of Land Management

U.S. Environmental Protection Agency

U.S. Forest Service

U.S. Geological Survey

University of Florida, Institute of Food and Agricultural Sciences

Virginia Tech Center for Leadership in Global Sustainability

World Resources Institute

Keynote Speaker Biography

Plenary 2 – Ecosystem Services and Public Policy: Status, Opportunities, and Challenges **Tuesday, December 9, 2014 | 10:30am-12:00pm**

Sally Jewell

Secretary, U.S. Department of the Interior

Sally Jewell was sworn in as the 51st Secretary of the Interior on April 12, 2013.

In nominating Jewell, President Obama said, “She is an expert on the energy and climate issues that are going to shape our future. She is committed to building our nation-to-nation relationship with Indian Country. She knows the link between conservation and good jobs. She knows that there’s no contradiction between being good stewards of the land and our economic progress; that in fact, those two things need to go hand in hand.”

As Secretary of the Interior, Jewell leads an agency with more than 70,000 employees. Interior serves as steward for approximately 20 percent of the nation’s lands, including national parks, national wildlife refuges, and other public lands; oversees the responsible development of conventional and renewable energy supplies on public lands and waters; is the largest supplier and manager of water in the 17 Western states; and upholds trust responsibilities to the 566 federally recognized American Indian tribes and Alaska Natives.

Prior to her confirmation, Jewell served in the private sector, most recently as President and Chief Executive Officer of Recreation Equipment, Inc. (REI). Jewell joined REI as Chief Operating Officer in 2000 and was named CEO in 2005. During her tenure, REI nearly tripled in business to \$2 billion and was consistently ranked one of the 100 best companies to work for by Fortune Magazine.

Before joining to REI, Jewell spent 19 years as a commercial banker, first as an energy and natural resources expert and later working with a diverse array of businesses that drive our nation’s economy. Trained as a petroleum engineer, Jewell started her career with Mobil Oil Corp. in the oil and gas fields of Oklahoma and the exploration and production office in Denver, Colo. where she was exposed to the remarkable diversity of our nation’s oil and gas resources.

An avid outdoorswoman, Jewell finds time to explore her backyard in the Pacific Northwest where she enjoys skiing, kayaking, hiking and other activities. She has scaled Mount Rainier on seven occasions, and recently climbed Vinson Massif, the highest mountain in Antarctica.

Jewell has worked to ensure that public lands are accessible and relevant to all people from all backgrounds, and to build a connection between the great outdoors and a new generation of Americans.

Jewell is a graduate of the University of Washington. She and her husband, Warren, have two adult children, Peter and Anne.



Plenary Session Descriptions

PLENARY SESSION I | Tuesday, December 9, 8:00AM-10:00AM

Ecosystem Services: Key Advances and Challenges in Linking Science, Practice, and Decision Making

This opening plenary session provides a forum for leaders in the ACES community to assess changes since ACES 2012 in the status of ecosystem services as a framework for making societal decisions involving natural resources. Panelists will discuss important advances in ecosystem service science and practice, including market and non-market approaches. The panelists will also discuss barriers and challenges that remain in applying ecosystem services approaches routinely and effectively.

PLENARY SESSION II | Tuesday, December 9, 10:30AM-12:00PM

Policy Track – Ecosystem Services and Public Policy: Status, Opportunities, and Challenges

The plenary session will include representation from the Executive Office of the President (EOP), from where significant federal momentum around ecosystem services policy derives, along with representatives from agencies that are tasked with implementing these policies on the ground.

PLENARY SESSION III | Wednesday, December 10, 8:00AM-9:45AM

The Role of Traditional Ecological Knowledge in Ecosystem Service Assessment and Valuation

Traditional Ecological Knowledge (TEK), also known as Traditional Knowledge Systems (TKS), encompasses a wide variety of types of knowledge possessed by Indigenous Peoples, often held in common by their communities, and passed down through the generations since time immemorial. TEK had been widely dismissed in the past by mainstream science as apocryphal; that, however, is changing rapidly as scientists come to realize that the wealth of knowledge held by Indigenous Peoples may have great value in identifying the impacts of—and developing responses to—the increasing challenges facing our natural world. Any discussions around this topic requires an understanding of the historic exploitation of such knowledge in the past, concerns of contemporary indigenous communities regarding the use of such knowledge, and how in the United States and Canada tribal Natural and Cultural Resources professionals and tribal research scientists are applying TEK in the stewardship of tribal lands. Our panelists will speak to these issues and respond to questions from attendees on these and other aspects of collaboration around TEK.

PLENARY SESSION IV | Thursday, December 11, 8:00AM-9:45AM

International Perspectives on Incorporating Ecosystem Services into Decision Making: Science and Practice

Panelists in this plenary session will discuss and compare international perspectives to apply ecosystem services approaches for decision making. Discussion will address efforts to measure, value, and apply ecosystem services with experiences and expertise from different nations. Policies regarding ecosystem service science and practice in and out of government will also be discussed and compared with perspectives from developed and developing nations.

PLENARY SESSION V | Friday, December 12, 8:00AM-9:45AM
Climate Change and Ecosystem Services

Recent natural events highlight the potential for climate change-related events to seriously impact the provision of ecosystem services. Panelists in this plenary session will discuss the relationship between ecosystem services and climate change, including how climate change can affect the ability of ecosystems to provide services. Discussion will consider the types of services that might be affected most significantly and how adaptation can reduce the impacts. In addition, the panel will explore how an ecosystem services approach can provide an analytical framework to inform adaptation decisions and how ecosystem services can help assess the potential impact of alternative responses to climate change.

PLENARY SESSION VI | Friday, December 12, 10:15AM-12:00PM
ACES 2014 Synthesis: Future Directions for Ecosystem Services Research and Practice

The closing session at ACES 2014 will provide a synthesis for conference findings, lessons learned, and next steps. Panelists will discuss opportunities, needs, and challenges for advances in ecosystem service science and practice. This concluding session provides an opportunity for the ACES community to identify critical research, practice, and policy directions at the close of ACES 2014 leading to the future.

Policy Track Session Descriptions

Policy Track: Ecosystem Services in Federal Decision-Making

A Track of Sessions Integrating Policy, Science, and Practice at ACES 2014

Federal policy is moving toward an ecosystem services approach to resource management and decision-making. The ACES 2014 conference presents a unique opportunity to bring together policymakers, implementing agencies, scientists, and others to discuss the advantages, opportunities, and challenges of employing this approach. By focusing on the relevant policy issues and by directly involving policymakers in a sequence of plenary, organized sessions, and Town Hall-style discussions, the series will offer a dedicated space to frame and dive deep into the use of ecosystem services to better inform and more transparently describe the consequences of alternative management decisions.

Plenary Panel: Ecosystem Services and Public Policy: Status, Opportunities, and Challenges

December 9, 10:30am-12:00pm

The plenary panel will include the highest-level representation across the EOP, from where significant federal momentum around ecosystem services policy derives, along with agency heads that are tasked with implementing these policies on the ground. Topics for this plenary include: 1) a vision for the benefits and opportunities of the use of an ecosystem services approach within federal decision-making; 2) discussion on specific policy-level actions that can be taken to advance the use of ecosystem services; and 3) discussion on overcoming barriers to implementation and interagency coordination.

Session 1B: Integrating Ecosystem Services into Program Planning, Budget, Management, and Performance

December 9, 1:30pm-3:15pm

This session will explore opportunities to incorporate ecosystem services approaches in policy tools that cut across agency missions and jurisdictions. This session will provide an opportunity for staff from the Office of Management and Budget (OMB) to lead a discussion on potential applications of ecosystem services approaches might be applied across agencies, at various levels from data to implementation, to offer a crosscutting framework for management and integration.

Session 2B: Developing Standards for the Application of Ecosystem Services Valuation in Cost-Benefit and Tradeoff Analysis in Crosscutting Policy and Decision Tools

December 9, 3:45pm-5:30pm

Panelists will discuss the potential of guiding policy tools (e.g. cost-benefit analysis, NEPA, OMB circulars) that leave policy space open for ecosystem services approaches that so far have not been realized and will frame outstanding needs to promote uptake of ecosystem services in different decision contexts.

Session 3B: Assessing a Role for an Ecosystem Services Approach in Urban Coastal Management, Green Infrastructure, and Climate Resilience

December 10, 10:15am-12:00pm

This session will focus on the role of ecosystem services approaches in climate adaptation planning, resilience, and storm recovery in developed areas with extensive built infrastructure. Hurricane Sandy will be considered as a specific case study.

Session 4B: Integrating Ecosystem Services into the Implementation of Water Resource Projects

December 10, 1:30pm-3:15 pm

This session will focus on opportunities for ecosystem services approaches in water projects, in ways that cut across agencies, scales, and jurisdiction. Discussion will address questions on return on investment, innovation, and barriers. The session will include some discussion of the updated 2013 Principles and Requirements for Federal Investments in Water Resources.

Session 5B: Incorporating an Ecosystem Services Approach into Natural Resource Restoration and Coastal Management

December 10, 3:45pm-5:30 pm

This session will focus on opportunities to incorporate ecosystem services approaches in environmental restoration across several large-scale efforts, with a focus on the link between environmental and economic recovery.

Town Hall: Ecosystem Services in Federal Decision-Making: Synthesis and Reflection

December 10, 7:30pm-8:35pm

An interactive synthesis session, featuring the moderators of each topical session, will bookend the plenary panel and provide an opportunity for policymakers to walk away with a clear sense of the cross-cutting relevance of ecosystem services science, while also giving the scientists and practitioners across the ACES community a clear idea of the remaining needs and open questions in the policy and decision-making community.

Pre-Conference Workshop Descriptions

Monday, December 8, 2014 | 8:00am-4:30pm | Grand Ballroom Salon A

Methods for Incorporating Ecosystem Services into Planning and Decision-Making

Workshop Organizers and Presenters:

Lydia Olander, Director, Ecosystem Services Program, Nicholas Institute for Environmental Policy Solutions, Duke University

Dean Urban, Nicholas School of the Environment, Duke University

Deb Whittall, USDA Forest Service, Pacific Southwest Region

Robert J. Johnston, Clark University

Lisa Wainger, University of Maryland Center for Environmental Sciences

Overview:

This workshop will consist of an introduction to the FRMES project and the assessment framework followed by 15 to 30 minute presentations of key methods. Question and answer sessions follow the presentation of each component, with an additional opportunity at the end of the workshop. We have also integrated several small group exercises into this workshop to give participants an opportunity to apply some of the methods presented.

This workshop will delve into the ecosystem services assessment framework presented in the Federal Resource Management and Ecosystem Services (FRMES) Guidebook. This framework introduces a standardized, but customizable method for incorporating the value of ecosystem services into planning and decision-making processes. Presenters will walk through key components in depth, focusing on the aspects of the assessment that may be different from current planning and decision-making processes such as: engaging stakeholders in prioritizing environmental benefits they receive, linking ecological or biophysical outcomes to social outcomes, and integrating social value to assess trade-offs among alternative management options, which enables the incorporation of ecosystem services into analyses such as cost-benefit analysis. We will use examples from the FRMES project to facilitate understanding of how resource managers can incorporate the framework into their planning and decision-making processes. Prior to the workshop, we will provide background documentation to participants so they can gain some familiarity with the concepts that will be presented. We have also included several exercises in the workshop to allow participants practice applying these concepts. We would like to arrange the space so that participants can work in groups of approximately 8 on these exercises.

A number of events are being proposed for ACES 2014 to introduce the new National Ecosystem Services Partnership Guidebook for Federal Resource Management and Ecosystem Services. Besides this pre-conference workshop, these include two special sessions (one on case examples and one on data and modeling infrastructure for nation-wide ecosystem services application), a plenary talk, and a separate decision makers series planned in partnership with COMPASS to bring federal decision makers together with the experts attending the ACES conference.

Target Audience:

This workshop will be beneficial to anyone involved in conducting or considering ecosystem services assessments for planning processes, with examples of particular interest to federal resource managers. These methods can be applied for a range of planning decisions, from choosing management alternatives to selecting alternative sites, or even comparing project options (e.g. floodplain restoration in watershed A versus levee in watershed B).

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon B

Ecosystem Services, Climate Change, and the Arctic Environment

Workshop Organizers and Presenters:

Joseph Nicolette, Principal, ENVIRON International Corporation

Lionel Camus, Framcentre – Akvaplan-niva: Tromsø, Norway

Nina Mari Jørgensen/Kit Kovacs, Norwegian Polar Institute

Per Fauchald, Framcentre, Norwegian Institute of Nature Research (NINA)

Rolf Anker Ims, University of Tromsø

Kim Holmén, Framcentre Norwegian Polar Institute

Claire Armstrong, University of Tromsø

Satu Juntunen, ENVIRON International Corporation, Finland

Mark Rockel, ENVIRON, PhD natural resource economist

Sue Ban/Jack Colonell, ENVIRON International Corporation, Alaska

Andrea Fogg, ENVIRON International Corporation, Maine

Overview:

Given climate change and the expansion of industry (oil and gas operations, mining, etc.) in the Arctic, there is a need to have a better understanding of the ecosystem services provided by the Arctic and how they may be influenced by these actions. This workshop will provide an overview of the evolution of ecosystem services and the interrelationship of the arctic ecosystem to the provision of services. We will also touch on issues of climate change and the growth of extractive industries in the Arctic. This workshop will serve as a precursor to the two planned Arctic Sessions (see below) and will provide supplemental information supporting these sessions.

1. Arctic Ecosystem Services and Climate Change
2. Arctic Ecosystem Services: Policy and Adaptive Decision-Making

The goal of the workshop is to provide an overview of: 1) "Marine ecosystem services" of the Arctic, 2) resource economics methods and application to quantifying Arctic ecosystem services, 3) an overarching perspective of changing climate in the Arctic, and 4) provide for an interactive discussion with the panel and audience members. Each keynote speaker will have 20 minutes for snapshot talk to present the state of the art and the issues to be discussed. After the talks, ENVIRON (Joseph Nicolette) and the Fram Centre (Nina Jørgensen and Lionel Camus) will facilitate discussions with the audience. The workshop will include support and attendance of Arctic Specialists from both the Fram Centre and ENVIRON.

Agenda:

8:00-8:15	Introduction and Overview of Ecosystem Services, Joseph Nicolette (ENVIRON)
8:15-8:30	Overview of the Fram Centre and Arctic Research, Nina Jørgensen and Lionel Camus (Fram Centre)
8:30-8:50	Arctic Marine Ecosystem Services, Professor Claire Armstrong (Fram Centre – The Arctic University of Norway: Tromsø, Norway)
8:50-9:10	Marine Mammal and Deepwater Considerations, Sue Ban and Jack Word (ENVIRON)
9:10-9:30	Physical Changes in the Arctic, International Director Kim Holmén (The Norwegian Polar Institute, The Fram Centre)
9:30-10:00	Break
10:00-10:20	Comparing Valuation of Arctic Resources for Policy Making, Mark Rockel (ENVIRON)
10:20-11:30	Panel Discussion, Q&A
11:30-11:45	Conclusions by Joseph Nicolette, Nina Jørgensen, and Lionel Camus

Target Audience:

The target audience for this workshop would include both beginning and more experienced practitioners. In particular, the workshop would be of interest to 1) private sector representatives (oil and gas, mining, etc.) looking to evaluate the potential linkage of ecosystem services to their exploration and extractive operations and their corporate goals; and 2) public sector representatives looking to understand the interrelationship and linkages between ecosystem service flows, the changing environment, and policy direction.

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon C

Coordinated Approaches to Enhance Ecosystem Services in Watersheds Dominated by Agriculture

Workshop Organizers and Presenters:

Leah Harris Palm-Forster, Graduate Research Assistant, Michigan State University

Dr. Joseph DePinto, Senior Scientist, LimnoTech

Denny McGrath, Great Lakes Project Director, The Nature Conservancy

Todd Redder, LimnoTech

Randy Dell, The Nature Conservancy

Carrie-Vollmer Sanders, The Nature Conservancy

Elena Irwin, Professor, The Ohio State University

Overview:

This workshop will focus on ecosystem services in agricultural landscapes. Covering over a third of all global land area, agricultural systems constitute the world's largest engineered landscape and are critical to meet the demands of the growing world population through the provision of food, fuel, and fiber. Agriculture also yields numerous non-marketed ecosystem services (ES), including pollination, biological control, and recreation. However, intensive management to increase marketable output can result in adverse ecosystem impacts. In the Great Lakes region, agricultural nutrient loss via surface runoff and subsurface drainage is threatening aquatic ecosystems. In 2011, a Harmful Algal Bloom (*Microcystis* sp.) of unprecedented size and severity occurred in the Western Basin of Lake Erie. This bloom was primarily fueled by non-point source nutrient runoff from the Maumee Watershed, which has about 80% agricultural land use.

As a result of this and other coastal and freshwater re-eutrophication problems, significant effort is being dedicated to identify strategies that reduce nutrient loss from land in high priority watersheds. During this session, we will present research and programs that take an interdisciplinary, multi-stakeholder approach to identify market and non-market strategies that balance productivity and environmental sustainability in watersheds dominated by agriculture.

Integrated ecological-economic modeling is critical for advancing our understanding of the nutrient loadings to freshwater lakes and the optimal policies that provide farmers with the right incentives to reduce these loadings. We present an integrated modeling approach that develops a model of individual farmer land management decision making and couples this with a spatially explicit model of land management outcomes and nutrient transport in the Maumee watershed of Lake Erie. We apply these models using survey data from 7,000 farmers and spatial data on cropland parcels and other physical watershed attributes to assess the potential nutrient reduction benefits of policies designed to encourage reduced fertilizer application and adoption of best management practices. We show how these results can be linked to non-market valuation estimates of targeted Lake Erie ecosystem services to evaluate the costs and benefits of alternative nutrient management policies.

Ecological models are also used to inform performance-based conservation programs. We will discuss three on-the-ground projects that have been implemented to engage a cross section of the agricultural supply chain (farmers, conservation groups, agricultural suppliers and retailers, and drain commissioners), 1) the 4R Nutrient Stewardship Certification, 2) Drainage Management Incentive Program, and 3) BMP Auction Program. Through these programs, our project team is testing and implementing cost-effective initiatives that sustain agricultural production and improve the condition of rivers, streams, and lakes in the Great Lakes Basin.

Target Audience:

This session will be of interest to a diverse audience, including resource management and conservation agencies, policymakers, researchers, and agricultural professionals.

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon D-E

Designing Performance-Driven Ecosystem Service Programs

Workshop Organizers and Presenters:

Katie Riley, Associate, Environmental Incentives, LLC

Jeremy Sokulsky, PE, MBA, Chief Executive Officer, Environmental Incentives, LLC

Overview:

Designing successful ecosystem service programs requires understanding the critical success factors and enabling conditions that lead to ultimate adoption and use. It also requires getting the right people together and the right products developed along the way. Environmental Incentives (EI) has years of experience working with partners to develop water quality and habitat programs across the U.S., including habitat exchanges for a variety of species in multiple states, and a landmark water quality trading program for Lake Tahoe's TMDL.

In this workshop, EI will showcase the process steps, products and questions necessary to guide diverse stakeholders through four distinct stages of program development: 1) Explore, 2) Design, 3) Pilot Test , and 4) Maintain. We will use templates and worksheets to actively engage participants in small group exercises to demonstrate necessary components in each stage of developing a program. Participants are encouraged to bring an idea for an ecosystem service program that they are either currently or potentially interested in developing. Participants will leave the workshop with functional tools to integrate into their own program development processes.

Note: This workshop gives an overview of the full process for developing successful, performance-driven ecosystem service programs, including enabling conditions and success factors. It is designed such that it can work independently, but also complements Willamette Partnership's "Best Practices in Program Design" workshop (2-PM) on Monday afternoon.

Target Audience:

This workshop is targeted to individuals who are interested in building a market-based program for species habitat or watershed conservation, but are seeking assistance with next steps.

- Practitioners
- Regulatory agencies
- Policymakers
- NGOs

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon F-G

Back to the Future: Scenario Development for Ecosystem Services

Workshop Organizers and Presenters:

Amy Rosenthal, Natural Capital Project, World Wildlife Fund

Nasser Olwero, Science & Innovation, World Wildlife Fund

Nirmal Bhagabati, Forests Team, World Wildlife Fund

Emily McKenzie, World Wildlife Fund - UK

Gregory Verutes, Woods Institute for the Environment, Stanford University

Overview:

This 3-hour workshop will include lecture, case exploration, discussion, tool training, and a game.

What are scenarios, and why do they matter for ecosystem services? Our session will answer these questions and prepare participants to design their own scenario development process. Through lessons drawn from the literature and our own set of cases, we will explore the essentials of scenario development and review alternative approaches. Using real cases, we'll discuss what elements make them more and less successful to inform decision-making and scientific research. We will compare and contrast three software tool for generating spatially explicit scenarios, and offer a set of hands-on activities, including a game and prizes, to build knowledge and skills related to framing, stakeholder engagement, and designing and interpreting map-based scenarios.

Our goals for this workshop are to help participants: (1) learn basic concepts and principles for scenario development; (2) explore alternative approaches and tools for scenario generation, including InSEAM and IDRISI's Land Change Modeler; and, (3) do a deep dive on a new, practical and user-friendly scenario development tool – Scenario Generator. We aim to prepare participants to embark on a scenario development process of their own that supports an ecosystem service assessment and informs decisions.

Participants will learn how to develop scenarios for ecosystem service assessment, including challenges and skills relating to resource and tool decisions, framing, stakeholder engagement, and designing and interpreting scenarios with alternative scenario development tools.

Target Audience:

The workshop will accommodate a range of skill and knowledge levels from beginner to intermediate in developing scenarios. It will help prepare practitioners, students and researchers aiming to develop scenarios for ecosystem service assessment and valuation. The intended audience is broad, and those with an array of skill sets and interests can take advantage of the lectures, discussion, and group activity; but those who have at least a beginner's level in use of a GIS software (e.g. Arc or Q) will benefit most from the hands-on session for the Scenario Generator.

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon H

Incorporating Ecosystem Service Concepts and Measures into Coastal, Marine and Great Lakes Management

Workshop Organizers and Presenters:

Marilyn Buchholtz ten Brink, U.S. Environmental Protection Agency, Office of Research and Development

Tracy Rouleau, National Oceanic and Atmospheric Administration, Office of Program Planning and Integration

Thomas E. Fish, U.S. Department of the Interior, National Park Service

Overview:

This workshop invites participation from individuals with experience and/or interest in (1) the application of ecosystem service valuation to inform policy, planning, and management; and (2) maintaining a robust community of practice for ocean, coastal, and Great Lakes social science. A combination of presentations, facilitated discussion, exercises, and sharing of resources and results will provide the Interagency Working Group on Ocean Social Sciences with recommendations specific to Ecosystem Services to take forward to the Federal Agencies, and will provide participants with concepts, cases, and networks to further the application of their own work.

The application of social science has been recognized as a priority for effective ocean and coastal management, driving much discussion and fostering emerging efforts in several areas. The Interagency Working Group on Ocean Social Science (IWG-OSS) is tasked with assisting the Subcommittee on Ocean Science and Technology and Ocean Resource Management Interagency Policy Committee to integrate social science into ocean, coastal, and Great Lakes governance structures, agency functions, policies, and decision-making. The working group comprises social scientists representing U.S. federal agencies with ocean-related responsibilities. The IWG-OSS provides input on how agencies can enhance current policy, management, and research activities through incorporation of social science, and thereby better inform ocean- and coastal-related decision-making.

The working group's efforts are focused on implementing key actions in the National Ocean Policy Implementation Plan including: (1) enhancing our understanding of ocean and coastal systems, and (2) improving science-based products and services for improved decision-making.

Members from the IWG-OSS will engage participants with presentations, discussion, and exercises that focus on opportunities, participant perspectives of where we are at, visioning of what robust incorporation of nature's benefits concepts in decision making looks like, lessons learned and practical steps for implementation, and next steps for demonstrated use of ecosystem services science in implementation of the National Ocean Policy.

Participants will have opportunity to share their own work, their thoughts about challenges, barriers, and opportunities, and to discuss the role of government agencies, NGOs, academia, and industry in fostering and facilitating inclusion of ecosystem service valuation in ocean and coastal policy, planning, and management. Additionally, they will have opportunities to coordinate/develop partnerships across existing networks and projects to meet National Ocean Policy goals, leverage existing capacity/expertise within the coastal management and partner community, and articulating lessons learned and best practices... What works? What doesn't? Why?

Target Audience:

This workshop invites participation from individuals with experience and/or interest in (1) the application of ecosystem service concepts and valuation to inform policy, planning, and management; (2) experience or need in applying ecosystem service functions and measures in real decisions around coastal, marine, and great lakes management; and (3) maintaining a robust community of practice for ocean, coastal, and Great Lakes social science.

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon J

The Forest Carbon Offset Market Comes of Age: Lessons from the Launch of California's Landmark Climate Action Program

Workshop Organizers and Presenters:

Constance Best, Co-CEO, Pacific Forest Trust

Joel Levin, Vice President for Business Development, Climate Action Reserve

Kaarsten Turner Dalby, Vice President of Ecological Services, the Forestland Group, LLC

Roger Williams, President, Blue Source

Overview:

Thanks to the 2012 initiation of the nation's first economy-wide cap-and-trade greenhouse gas reduction program in California, forests across the U.S. are being conserved and managed to produce regulatory-quality carbon offsets, generating real climate benefits and real revenue. Participation is increasing among a broad spectrum of forest owners to take advantage of this opportunity to create a new forest product "out of thin air" to finance climate-friendly stewardship that meet rigorous accounting standards for emissions reductions.

Agenda:

- 1) Forests and Climate – The Evolution of American and California Public Policy (20 min. + Q&A)
Constance Best, Pacific Forest Trust
- 2) The ARB Forest Protocol and National Project Pipeline (20 min. + Q&A)
Joel Levin, Climate Action Reserve
- 3) An Overview of Developing Successful Projects (20 min. + Q&A)
Roger Williams, Blue Source
- 4) A Major Forest Owners Perspective on Project Development (20 min. + Q&A)
Kaarsten Turner Dalby, The Forestland Group
- 5) Break – 9:30-10:00am (30 min.)
- 6) Featured Case Study: Bishop Improved Forest Management Project (20 min. + Q&A)
Kaarsten Turner Dalby, The Forestland Group and Roger Williams, Blue Source
- 7) Panel Discussion (30 min.)
Constance Best, Moderator

This workshop is an in-depth session that will explain the latest in this growing market, including: the policy drivers; how forest carbon accounting is done and why; the nuts and bolts of how real projects are developed and what the economics are; who is selling and who is buying; how California's advances are influencing national climate action; there will be Q&A throughout the session; and a closing panel discussion on lessons learned, trends, and potential impact on climate policy in U.S.

The role of forests in climate mitigation has been controversial for decades. California is the first jurisdiction to incorporate contributions of forests broadly into a regulatory greenhouse gas reduction program. The state has established accounting methodologies and independent verification systems that it believes produce real, quantifiable and permanent greenhouse gas reductions. While only major greenhouse gas emitters in California are regulated under this new program, forest offset projects using California's protocol can be developed anywhere in the mainland U.S. for compliance use. Purchasers of California compliance offsets now provide a new, private source of funding for conservation and stewardship of U.S. forests. Pricing for California compliance offsets sets the benchmark for the U.S. voluntary market. This session should be of interest to land owners of all types, resource managers, state and federal policy-makers, climate and forest policy advocates, scientists interested in policy applications, anyone interested in applied climate solutions, and others.

Monday, December 8, 2014 | 8:00am-11:30am | Grand Ballroom Salon K

Modeling Species Banking at a Landscape-Scale

Workshop Organizers and Presenters:

Douglas Bruggeman, Ph.D., Ecological Services & Markets, Inc.

Overview:

Given increased interest in tradable credits for biodiversity and the importance of landscape-scale processes for protecting small and declining populations, this workshop will help to span the gap between science and application. Conservation or species banking is still dominated by crediting systems that establish the equivalency of habitat trades based on habitat area and quality (i.e., Fox and Nino-Murcia 2005). While estimating tradable credits based on habitat area and quality may minimize transaction costs and facilitate the creation of markets, tradable credit systems have been heavily criticized by the conservation community for not achieving sustainability goals (Walker et al. 2009). Adjacency of habitat to other land cover types, estimated as habitat connectivity, can have a large impact on population viability for some species (Lindenmayer and Fisher 2007). Conservation banking policies were intended to ameliorate the effects that habitat fragmentation on these at-risk populations (USFWS 2003). Several studies have been published describing how landscape models can be used to provide incentives to defragment habitat (Bruggeman et al. 2005, 2009; Hartig and Drechsler 2009), but this academic research has rarely made contributions in real landscapes.

The objectives for this three hour workshop are to 1) highlight how landscape-scale processes can affect the conservation value of a habitat patch; 2) describe different modeling approaches for estimating the benefits of conservation banking at a landscape scale; and 3) provide free software to estimate tradable credits for at-risk species at a landscape-scale. This workshop will highlight approaches for increasing the scientific rigor applied to tradable credit systems through the use of landscape-scale projection models, rather than an acre/quality approach. The discussion will be motivated by describing interactions between species natural history traits and landscape patterns. Ignoring these interactions could lead to gross over- or under-estimation of habitat patch conservation value. We will describe how patch-occupancy [metapopulation] modeling (Hanski and Gaggiotti 2004), matrix population models for subdivided species (Caswell 2001), and individual-based modeling (Grimm et al. 2005) can be used to capture the influence of landscape-scale dynamics on patch-conservation value.

As a way to subsidize transaction costs associated with applying landscape-scale analysis of species banking, we will provide free software that integrates GIS technology with matrix population projection models. The software is designed to estimate the number of credits that result from alternative bank placement and the number of credits exchanged to offset a take occurring elsewhere. The software is designed for Windows PCs and does not require any existing GIS or data analysis software. The software will be provided on a thumb drive and workshop participants will have to bring their own laptop. The software will run from the thumb drive and does not need to be installed on the PC. The participants will be able to interact with parameters used to describe landscape processes and gain a better understanding of how models can be used within a policy setting. We will describe how the variation in habitat quality and dispersal probabilities over space can be applied within the software. The software will also include the influence of habitat restoration on subdivided populations.

This workshop represents an important step for increasing the ecological realism of species banking, by recognizing that conservation value is not only dependent on habitat quality and acreage of a bank. The hope is that by providing a review of ecological theory and methods, non-profits, conservation bankers and regulators will gain a deeper understanding of the systems they manage. Further, by providing software it will allow both private and public practitioners to begin “gaming” with their systems to understand the benefits of landscape-scale approaches, and the dangers of ignoring such dynamics.

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon B

Best Practice in Program Design: Key Decisions in Building Ecosystem Service Payment, Incentive, or Trading Programs that Work

Workshop Organizers and Presenters:

Carrie Sanneman, Ecosystem Services Project Manager, Willamette Partnership

Sam Baraso, Ecosystem Services Specialist, Willamette Partnership

Overview:

Note: This workshop will build on concepts presented in the morning workshop titled “Designing Performance-Driven Ecosystem Service Programs” (4-AM). The workshops are designed such that they can be taken independently but complement each other in content.

Learn how to lay the foundation for an ecosystem service payment, incentive, or trading program in your area. Participants will leave the workshop with an ability to navigate the science- and policy-based decision points inherent in designing market-based programs. Willamette Partnership staff bring their full experience leading state, regional, and national conversations on best practice in trading program design to explore its stickiest issues:

- **Baseline and Additionality:** Each trading program must set a “trading baseline” — i.e., the performance threshold a nonpoint source is required to meet before credits can be created. Setting baseline is a critical and potentially sticky issue in program design.
- **Quantifying Water Quality Benefits at the Project Site:** The first step in determining the amount of credits available to sell is to quantify the benefits derived from BMPs at the project site. This section covers selecting or developing quantification methods that are appropriate for trading.
- **Project Verification:** Confirming the quality and performance of credit-generating BMPs after they are installed is central to programmatic integrity. This section discusses designing a verification system that balances cost and rigor.
- **Transaction Models and Sustainable Business Models in Market Operation:** This section will explore considerations in program design that feed directly into the cost of ongoing operations and the sustainability of supporting operations over time.

As a case-study, this workshop will illustrate the steps outlined in the Willamette Partnership’s Ecosystem Credit Accounting System, which guide multiple streams of investment using different funding approaches within a single accounting system to generate and track benefits, all working towards broader environmental goals, as well as the challenges and opportunities to adapt existing tools to new programs and resource management objectives.

Target Audience:

There is growing interest and recognition that market-based approaches are attractive solutions to many environmental programs, both in terms of regulation and the investment of public and private funds. However, many program developers get stuck trying to answer the question of “how do we do this?” and become stagnated. This workshop will identify necessary program components and questions to answer in order to set a clear path for program development. The basic components of market-based programs remain largely consistent across different program types. Often, a single framework can coordinate the actions and investments of many different people, allowing them to work towards a common environmental and investment goal. Similarly, the basic components of market-based programs can be transferred to other types of regulatory or investment programs.

This workshop is targeted to individuals who are interested in building a payment for ecosystem services or other market-based program but don’t know how to take the next steps. This includes:

- Practitioners
- Regulators
- Policymakers
- NGOs

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon C

***Improving Ecosystem Services from Agricultural Lands:
Modern Technology and Markets***

Workshop Organizers and Presenters:

Alex Echols, Consultant, Sand County Foundation

Paul Sweeney, Senior Project Leader NRCS

Rob Sampson, National Water Management Engineer NRCS

David Lapen, Research Scientist, Agriculture Canada

Dustin Miller, Iowa League of Cities

Dennis McGrath, Great Lakes Director The Nature Conservancy

Mike Sprague, President Trout Headwaters

Overview:

This workshop will provide both a narrative and hands on opportunities to help participants understand what is Drainage Water Management (DWM), what are the ecosystem services it produces and how can they be entered into the marketplace or other mechanisms to take to scale? Presentations and discussion to include the land requirements for each, suitability requirements, conservation planning as tool to select, performance of each practice, conservation return on investment of each practice, and financial assistance and “gaps” to be closed to advance the implementation of DWM.

Participants will have the opportunity to see the equipment and talk with experts on its operation and utilization.

Over 100 million acres of prime farmland in the US have subsurface drainage. While drainage has numerous benefits such as a substantial increase in agricultural productivity and reduction in rill erosion and phosphorous, it can contribute to other unwanted outcomes such as increased loss of nitrogen from agricultural fields. Drainage Water Management (DWM) offers a strategy to reduce nutrient loss (nitrogen and dissolved phosphorous) and deliver significant additional ecosystem services such as reduced flooding, groundwater recharge and sequestering greenhouse gases. DWM includes multiple management practices and has application on over 40 million acres in the US alone.

Target Audience:

- Conservationists interested in improved water quality
- Farmers
- Land managers
- Industry and municipalities interested in lower cost NPDS strategies
- Policymakers interested in advancing cost effective environmental improvements
- Government officials
- Scientists
- Economists

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon D-E

Getting Better Biodiversity Outcomes from Coordinated Environmental Markets

Workshop Organizers and Presenters:

Stacy Small-Lorenz, Ph.D., Senior Scientist, Ecosystems Program, Environmental Defense Fund

Jeremy Sokulsky, Environmental Incentives

David Wolfe, Environmental Defense Fund

Kevin Halsey, EcoMetrix Solutions Group

Rene Henery, Ph.D., Trout Unlimited

Morgan Robertson, Ph.D., University of Wisconsin

Alex Pfaff, Ph.D., Duke University

Chris Hartley, Ph.D., USDA Office of Environmental Markets

Jessica Fox, EPRI

Overview:

Environmental markets have the potential to enhance, improve, or conserve important elements of ecosystems; however, given that many declining species are specialized in their habitat requirements, their conservation requires coordinated, informed, and specific decision-making and actions. Environmental markets will not necessarily reverse species declines and enhance biodiversity without strong incentives for landowners and detailed conservation frameworks in place to specify and quantify targeted habitat outcomes and ecosystem services. Habitat exchanges are an emerging subset of environmental markets, specifically designed to achieve net benefits for vulnerable species through targeted mitigation across land ownership and sector boundaries, creating a mechanism for landscape-scale conservation of habitat on private and public lands.

During this workshop, we will explore the evolution of habitat markets and how such markets should be designed to achieve the greatest net benefit, covering both biological and regulatory considerations of habitat market design. Additionally, we will discuss scenarios in which it could be appropriate (or not) to combine (by stacking or bundling) habitat markets with other environmental markets or other conservation incentives in ways that add value, while avoiding pitfalls such as double-dipping, legal inconsistency, or market incompatibility. We will emphasize topics pertaining to achieving compatibility among conservation incentives, such as the interface of markets with federal conservation programs, stacking emerging habitat markets with established environmental (e.g. greenhouse gas or water) markets, and the challenge of establishing baselines for landowners enrolling in habitat markets.

Other topics that may be covered include temporal aspects of credits (e.g. temporary vs. permanent credits, order of credit generation) and how to incentivize specific habitat outcomes, in contrast to traditional practice-based conservation payments.

Target Audience:

Stakeholders in multiple environmental markets, including but not limited to market participants (buyers and sellers of credits, goods, and services), technical specialists, agencies and regulators, producer groups, and conservation organizations. Individuals and organizations developing environmental markets should be cognizant of potential for market interface. Anyone who works to maximize environmental benefits, including habitat, or who is interested in the interaction between environmental markets would benefit from this session. We hope to reach the greater ecosystem service community to increase awareness and knowledge and encourage productive thinking around the opportunities and challenges for designing and coordinating habitat-friendly environmental markets and other economically savvy forms of conservation incentives.

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon F-G

Communicating Ecosystem Services Using Collaborative Learning and Mental Models

Workshop Organizers and Presenters:

Christine Feurt, Director, Center for Sustainable Communities, Department of Environmental Studies, University of New England

Overview:

Engaging stakeholders in ecosystem service management is one of the greatest challenges facing researchers conducting assessments and policy makers implementing science based programs. High impact communications about the value of ecosystem services can motivate people to act in ways that protect and sustain the services they care about. Decision-making about ecosystem services requires engaging people with diverse and conflicting perspectives in dialogues about what is at stake, who benefits and who stands to lose. This workshop provides participants with practical and effective techniques immediately applicable in a variety of contexts to improve ecosystem service communication and stakeholder engagement strategies. Collaborative Learning is a powerful stakeholder engagement process that can move groups forward in spite of conflicts, uncertainty and complexity. Collaborative Learning, designed with knowledge of the mental models used by stakeholders, can reduce conflict, contribute to development of shared meaning among the group, and facilitate actions that sustain ecosystem services recognized as important.

Collaborative Learning is a versatile and practical approach to ecosystem service communication. It is used to engage public and professional groups and build effective stakeholder teams to identify shared goals and develop action-oriented strategies for achieving those goals. Participants will identify current challenges of ecosystem service communication. Using an ecosystem service project in Maine as a case study, participants will learn how to apply the four phases of Collaborative Learning to their own work. Participants will learn how to conduct a stakeholder assessment and design meetings to build shared understanding, identify sources of conflict and reveal opportunities for making progress. Knowledge of the mental models people use to think about ecosystem services can improve the effectiveness of communication. Moving decision makers from awareness to collaborative action can be accomplished with the six-step "Ideas to Action" process of Collaborative Learning. Participants will learn this process and receive the worksheets to implement this powerful process in their work. Evaluating stakeholder involvement and facilitating on-going partnerships benefits from careful analysis of stakeholder input. The training concludes by acknowledging the challenges faced by change agents and ways you can design your ecosystem services communication to take advantage of the five most powerful qualities of ideas that capture the hearts and minds of people to foster change.

Target Audience:

This workshop is for ecosystem services professionals working in research, policy and management. Effective communication facilitates collaborative partnerships and on-going adaptive management approaches to value, manage and sustain ecosystem services. This workshop provides resources to design stakeholder processes and to improve communication and learning within existing projects to achieve desired outcomes. Participant experience will be used throughout the workshop to illustrate principles and connect techniques to participants' work in ecosystem service communication.

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon H

Natural Infrastructure: Reducing Risks and Generating Co-Benefits Along Coastlines and in Floodplains

Workshop Organizers and Presenters:

Timothy Boucher, Central Science Theme Lead for Natural Infrastructure, The Nature Conservancy

Joshua Goldstein, Economist, Central Science, The Nature Conservancy

Chris Zganjar, Adaptation Analytics Scientist, Central Science, The Nature Conservancy

Christine Shepard, Director of Science, Gulf of Mexico Program, The Nature Conservancy

Greg Guannel, Coastal Engineer, Natural Capital Project

Kris Johnson, Ecosystem Services Scientist, North America Region Program, The Nature Conservancy

Overview:

Conservation and restoration of floodplains and coastal habitats can contribute to risk reduction and provide an array of other benefits. Wetlands and connected floodplains can help reduce risk from flooding, and coastal habitats, such as oyster reefs and salt marshes, can reduce risk by dampening the effects of coastal storms and sea-level rise. Although grey infrastructure like levees, dikes, and flood walls are more commonly used to reduce risk, in some instances natural infrastructure alternatives alone or blended with grey infrastructure can be effective means to reduce the different types of risk. To catalyze more wide-spread use of natural infrastructure to benefit both people and nature decision-makers at multiple scales need tools and information that can guide the use of natural solutions that help reduce risk and provide additional benefits.

This workshop will be divided in to two parts. The first 90 minutes will consist of presentations describing the use and function of each of four analytical and decision support tools. For the second session attendees will be given the opportunity to attend an in-depth dive into the use of a chosen tool. Tools covered include:

- 1 – Resource Investment Optimization System (RIOS) Tool
- 2 – Floodplains by Design Tool
- 3 – Coastal Resilience 2.0 Tool
- 4 – Coastal Defense App in Coastal Resilience 2.0: Quantification of Coastal Protection Services

Target Audience:

This session is meant to target the following audiences and learning objectives:

- Business managers, engineers, scientists, or finance specialists that want to learn more about how they can include ecosystem services using available tools and reference case studies.
- Scientists, economists, and engineers that want to learn about some of the latest ecosystem service tools available for coastal and floodplain risk mitigation – how they can be used, and results of use.
- Government officials, staff, and policy makers that want to see how tools can be used to influence policy and decision makers, and case-studies that demonstrate how natural Infrastructure can work for communities.
- Non-governmental organizations that would like to see a variety of tools and case-studies that illuminate the value of the co-benefits that are important to them.

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon J

Ecosystems and Community/Tribal Social-Ecological Systems

Workshop Organizers and Presenters:

Jeffrey Thomas, MS Candidate, Timber, Fish & Wildlife Program, Puyallup Tribe of Indians

Darius Semmens, Ph.D., USGS Geosciences and Environmental Change Science Center

Richard Pollnac, Ph.D., University of Rhode Island

Susan Flensburg, Bristol Bay Native Association

Jaime Donatuto, Ph.D., Environmental Health Specialist, Swinomish Tribe

Gary Machlis, Ph.D., University of Idaho, Science Advisor to the Director, National Park Service

Agenda:

1:00pm-1:10pm	Introductions
1:10pm-1:30pm	Social-Ecological Systems Conceptual Overview (incl. Cultural Ecosystem Services)
1:30pm-1:50pm	Spatial Modeling OF Social Values for Ecosystems (with SolVES Software)
1:50pm-2:30pm	Developing Culturally Relevant Social Indicators (Job Satisfaction)
2:30pm-3:00pm	<i>Break</i>
3:00pm-3:15pm	Conserving Habitat and Traditional Use (Nushagak Watershed & Bristol Bay, AK)
3:15pm-3:30pm	Developing Response Indicators of Indigenous Health (Skagit Watershed & Swinomish Tribe, WA)
3:30pm-4:00pm	Human Social Indicators (& the Human Ecosystem Model)
4:00pm	Adjourn [Please attend the “Ecosystem Services and Human Well-Being” concurrent session scheduled for Monday, December 9, 3:45pm-5:30pm. It has been organized to deliberately complement this pre-conference workshop session on Ecosystems & Community/Tribal Social-Ecological Systems.]

Overview:

This workshop highlights the need for ensuring that local community (e.g. Tribal) social and cultural values are accommodated, and that local communities’ (especially Tribal) are being empowered to guide the outcomes of both local natural resource management, as well as local ecosystem restoration objectives.

Monday, December 8, 2014 | 1:00pm-4:30pm | Grand Ballroom Salon K

Ecosystem Valuation Toolkit: Online Tools for Valuing Natural Capital

Workshop Organizers and Presenters:

Jonathan Kochmer, Director of Research and Development, Earth Economics

Nora Wahlund, Research Analyst & Software Tester, Earth Economics

David Batker, Executive Director and Chief Economist, Earth Economics

Tania Briceno, Senior Economist, Earth Economics

Overview:

This workshop will provide attendees with the opportunity to get an overview of and experience with workflow of the Ecosystem Valuation Toolkit (EVT). The EVT is a web-based, comprehensive collection of online tools and resources for economic valuation of natural capital. It also contains the world's largest spatially explicit repository of peer-reviewed economic values for ecosystem services. EVT will permit users anywhere in the world to conduct and collaborate on ecosystem service valuation on multiple scales.

The workshop will also include discussion and examples of how EVT outputs have been applied to drive real world standards and significant changes in investment, and even adoption in federal policy.

This 3-hour workshop will allow participants to engage with and provide feedback on key areas of the Ecosystem Valuation Toolkit. The components of the toolkit that will be demonstrated in the course of the workshop include:

- **Calculating and reporting ecosystem service values:** tools that allow for easy calculations and reports of aggregate values for ecosystem services
- **Finding and selecting values:** various ways to search and filter through the thousands of ecosystem service valuation studies and values in our repository
- **How values are added:** the processes by which ecosystem service values are captured, reviewed, and tracked in a structured and rigorous way

Target Audience:

This workshop will appeal to two primary groups of individuals:

- Practitioners who prepare and present arguments for the value of nature and are interested in tools that simplify the process of researching and communicating the value of natural capital assets to decision-makers, with the aim of driving significant shifts towards investment in those assets. This may include planners, watershed managers, natural resource agencies, businesses, and many others.
- Researchers and scholars who perform economic analysis of the value of natural capital who would like to see their data used to influence decision-making around the world.

Town Hall Descriptions

Monday, December 8, 2014 | 4:45pm-5:50pm | Grand Ballroom Salons D-E

Habitat Exchange Mock Transaction

Town Hall Organizers and Presenters:

Katie Riley, Associate, Environmental Incentives, LLC

Jeremy Sokulsky, PE, MBA, Chief Executive Officer, Environmental Incentives, LLC

Description:

This town hall is an interactive, hands-on, live-action learning experience! Join Environmental Incentives and partners to grapple with the complexities and benefits of new investment approaches and work to overcome institutional barriers in a fun, low risk setting. The Habitat Exchange Mock Transaction engages and challenges participants in a live simulation role play where they are placed into an active decision making role –as either a **landowner** or a **funder**.

During the mock transaction, landowners and funders will explore a variety of different investment approaches, calculate credit needs in a mitigation context, and purchase credits to fulfill regulatory requirements. All participants will leave the Habitat Exchange Mock Transaction with a better understanding of how quantified information helps inform project prioritization and increase the overall benefit for species or resources of concern.

With roughly 270 species proposed for listing under the Endangered Species Act, our nation's system of protecting at-risk wildlife has not kept pace with the need to feed and fuel America's growth. Habitat exchanges are a new conservation tool that is being used throughout the U.S. to protect wildlife habitat while allowing economic and cultural activities to continue. This exercise was created to 1) demonstrate that defining rules for collective action and using market principles and flexible pricing can increase the efficiency of conservation and environmental investing, and 2) demonstrate that habitat exchange is applicable to a variety of geographies and environmental resources.

The Habitat Exchange Mock Transaction is the result of a several year-long evolution in getting people to understand the value of performance-based programs. Environmental Incentives has led many similar exercises, first as a World Café Session at the 2011 Making Markets Work Conference in Madison, WI as a highly facilitated, 12-minute version of the exercise that walked participants through scripted roles but did not ask them to make independent decisions. Since its debut at the Madison conference, we have invested significant resources to transform simulations into high-engagement, interactive learning experiences that place participants into active decision-making roles.

Target Audience:

The Habitat Exchange Mock Transaction is mainly targeted to individuals making policy and investment decisions. However, it is also a valuable learning tool for a broad array of participants who do not necessarily need much experience with performance-based programs.

- Investors
- Policymakers
- Practitioners
- Academics
- NGOs
- Public Agencies

Monday, December 8, 2014 | 4:45pm-5:50pm | Grand Ballroom Salons F-G

Integrating the Value of Nature into Business Decisions: Businesses and Collaborators Share and Compare their Approaches

Town Hall Organizers and Presenters:

Sheila M.W. Reddy, Senior Scientist for Sustainability, The Nature Conservancy
Elizabeth Uhlhorn, Project Manager, Ecosystem Services, The Dow Chemical Company
Jeff North, Senior Advisor, Corporate Practices, CH2M Hill Collaboration Lead, The Nature Conservancy
Jennifer Molnar, Director of Science, TNC-Dow Collaboration Science Lead, The Nature Conservancy
Brandy M. Wilson, LEEED AP O+M, Director of Sustainability, CH2M HILL
Daniel Vermeer, Executive Director, Center for Energy, Development, and the Global Environment, Fuqua School of Business, Duke University
Monica Ellis, Chief Executive Officer, Global Environment & Technology Foundation
Kevin Halsey, Senior Consultant, EcoMetrix Solutions Group
Judith Hochhauser Schneider, Private Sector Engagement, World Wildlife Fund

Description:

The Dow Chemical Company, The Coca-Cola Company, and CH2M Hill have made significant and distinct progress in integrating the value of nature into business decisions. Just like their businesses, their approaches to addressing ecosystem services and natural capital are different. Yet, strategic collaborations with organizations like The Nature Conservancy (TNC), World Wildlife Fund (WWF), Global Environment Technology Foundation (GETF), and EcoMetrix Solutions Group (ESG) have played a key role in each case. The Dow Chemical Company has invested in a six-year collaboration with The Nature Conservancy, with recent contributions from ESG, to develop the tools and test the business case for nature at various pilot sites. Coke has focused on water—the primary ingredient in their products. Working with WWF and GETF, Coke has set and made progress toward goals to replenish water sources, improve water efficiency, mitigate water risk, and treat and recycle wastewater. CH2M Hill has become a leader in green infrastructure, expanding business opportunities and providing sustainable natural solutions to customers. Recently, CH2M Hill and TNC formed a collaboration to broaden the application of green infrastructure technologies.

This town hall will feature representatives from each of these corporations and collaborative organizations. It will engage the speakers in a critical discussion to share and compare their approaches to integrating the value of nature into business.

Target Audience and Learning Objectives:

This session is meant to target the following five audiences and learning objectives:

- Business managers, engineers, scientists, or finance specialists who want to learn more about how they can integrate ecosystem services into their work.
- Scientists, economists, engineers, finance specialists that want to learn about some of the latest advances in ecosystem service science and how the can be applied to specific decisions.
- Government officials, staff, and policy makers that want to see examples at the intersection between ecosystem services, business, and policy.
- Non-governmental organizations that want to learn about the role that they can play in helping advance science, methods, and processes for ecosystem services as boundary organizations.
- Professional services firms that want to learn how they can provide services to businesses interested in integrating the value of nature into business decisions.
- Any of the above audiences that want to learn about:
 - Real examples about how businesses are integrating the value of nature into their business decisions,
 - The organizational change that is required to value nature in business decisions, or
 - How the ecosystem service community can contribute to progress in integrating the value of nature into business decisions.

Tuesday, December 9, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons D-E

Managing Agricultural Hydrology to Deploy Ecosystem Service Markets

Town Hall Organizers and Presenters:

Alex Echols, Program Consultant, Special Projects, Sand County Foundation

Jason Weller, Chief, Natural Resources Conservation Service, U.S. Department of Agriculture

Description:

Throughout the world, our waterways face the challenge of over enrichment of nutrients. Whether it is hypoxia in the Gulf of Mexico, Chesapeake Bay, North Sea, East China Sea, or harmful algal blooms in the Great Lakes or elsewhere, humans are having a significant impact on aquatic ecosystems. Municipal, industrial and agricultural sources are contributing to the decline of fresh and marine ecosystems.

Collaboration on strategies to improve environmental quality offers opportunities to improve environmental performance, reduce cost, and strengthen farm economic viability.

Managing how water and nutrients flow from agricultural lands can make a major contribution to improving water quality and potentially to reducing compliance costs for municipalities and industry. Most specifically, managing drainage water to improve agricultural productivity and reduce nutrient loss to surface waters has proven to be a highly effective and cost efficient tool.

To deploy drainage water management (DWM) on a large scale the Natural Resources Conservation Service has implemented a systems approach to nutrient management that includes incentives to manage drainage waters. In addition, the Service is interested in and actively engaged in helping advance ecosystem service markets to increase the adoption of DWM and other conservation practices.

This session will provide a broad overview of the potential of DWM to cost effectively and significantly reduce nitrogen and phosphorous loss to surface waters and of how ecosystem markets can provide incentives to producers for broad adoption of these practices. Items to be covered include:

1. Introduction – what DWM does and does not do
2. What DWM is and is not (for example it is not expansion of drainage)
3. What is DWM and its associated practices
4. What is the potential for DWM to significantly reduce N and P loss to surface waters
5. What are the economics of these reductions
6. Where it is most readily adopted/appropriate
7. What do farmers need to broaden adoption
8. What NRCS is doing to advance broad adoption of DWM
9. The potential for advancing ecosystem markets
10. The unique advantages of DWM to adoption by ecosystem markets
11. What do ecosystem service buyers/sellers need to engage in commerce

Target Audience:

This session will introduce and provide the audience an understanding of the potential for DWM to significantly reduce nitrogen and phosphorous movement from agricultural lands, the parts of the country where these practices can be most broadly applied, and the simplicity of validation of performance of DWM outcomes.

- Scientists interested in innovative strategies to reduce nutrient loading to aquatic systems
- Municipalities and industry interested in lower compliance costs
- Government officials responsible for environmental quality or habitat management
- NGO's interested in cost effective strategies to improve water quality on the watershed scale
- Entrepreneurs interested in advancing market solutions to key societal problems.

Tuesday, December 9, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons F-G

Ecosystem Services and Municipal Planning: Engaging Local Decision-Makers

Town Hall Organizers and Presenters:

Coeli M. Hoover, Research Ecologist, USDA Forest Service, Northern Research Station

Stephanie A. Snyder, Social Scientist, USDA Forest Service, Northern Research Station

Description:

In towns and small cities, local decisions or recommendations about land-use planning, infrastructure, and development are frequently made by planning boards, zoning boards, conservation commissions, and similar groups often comprised of volunteer citizens. These local planning units are faced with the very difficult task of making the on-the-ground decisions to balance a host of competing public and private resource use and protection decisions. Yet, these organizations often consist of volunteers who have limited awareness of environmental science and ecological principles, little time to search for technical information, and no access to natural resources professionals, let alone funds for data collection. Many communities face issues such as stormwater management, flood prevention, water quality protection, and the need to balance the provision of nature-based recreation with resource use; resource management problems that we suggest could be beneficially approached using an ecosystem services framework. However, we suspect that many challenges present themselves in trying to extend ecosystem services concepts into local planning decisions. For example, a community may be required to meet a specified level of nitrogen in their wastewater but not have access to the information and tools needed to evaluate the costs and benefits of meeting the target with green infrastructure instead of a standard tertiary wastewater treatment system.

The goal of this town hall is to explore the opportunities and challenges associated with making the ecosystem services framework accessible to decision-makers without scientific training and at the scale of municipal planning, as well as assess interest in building a community of practice among local planning organizations and natural resources professionals. The purpose of the community would be to share knowledge, tools, and success stories to enable smaller local planning organizations to consider ecosystem services in their planning processes, and for planners, managers, and scientists to identify ways to improve the use of ecosystem services methods in a practical context at the local level. We aim to gather feedback on which ecosystem services are most relevant for smaller municipalities, and what type of tools, training, and information would allow local land-use planning groups to incorporate ecosystem services into their planning process.

Target Audience:

This session provides participants the opportunity to share their experiences and ideas on the topic of applying an ecosystem services approach to planning for small municipalities. We invite participation from a wide range of fields; planners, natural and social scientists, and those involved in local governments are especially encouraged to attend.

Tuesday, December 9, 2014 | 5:45pm-6:50pm | Grand Ballroom Salons D-E

***The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES):
Opportunities for Science to Inform International Policy on Biodiversity Change***

Town Hall Organizers and Presenters:

Clifford Duke, Ecological Society of America

Charles Perrings, Arizona State University, ecoSERVICES Group, School of Life Sciences

James Boyd, Resources for the Future

Frank Hawkins, International Union for the Conservation of Nature (IUCN)

Description:

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) was established in 2012 as an independent intergovernmental body dedicated to assessing the state of the planet's biodiversity, its ecosystems, and the essential services they provide to society. IPBES has four functions: 1) identify and prioritize key scientific information needed for policymakers and catalyze efforts to generate new knowledge by engaging relevant scientific, policy, and funding organizations; 2) perform regular and timely assessments of knowledge on biodiversity and ecosystem services and their interlinkages; 3) support policy formulation and implementation by identifying policy-relevant tools and methodologies; and 4) prioritize key capacity-building needs to improve the science-policy interface and catalyze related financing. As with the Intergovernmental Panel on Climate Change (IPCC) efforts on climate change, IPBES will provide scientists, economists, and other experts important opportunities to support science-based environmental decision-making at global to local scales.

Speakers at this town hall will describe IPBES history, structure, and governance; will provide information about ongoing assessments; and will summarize opportunities to participate in IPBES as expert panel members, contributors to assessments, and reviewers.

This goal of this town hall is to raise the profile of IPBES among ACES attendees and to stimulate interest in participation in the Platform's work. IPBES and ACES share a fundamental interest in the development and use of ecosystem services analysis in environmental decision-making. We therefore expect this town hall to be of broad interest to ACES attendees from multiple disciplines. The town hall format is ideally suited for this purpose because of its flexibility and relative informality compared to paper sessions.

Tuesday, December 9, 2014 | 5:45pm-6:50pm | Grand Ballroom Salons F-G

Federal Coordination in the Chesapeake Bay—Reducing Complexity in Water Quality Trading

Town Hall Organizers and Presenters:

Kathryn Zook, U.S. Department of Agriculture, Office of Environmental Markets

Description:

The Chesapeake Bay watershed represents one of the largest, most comprehensive efforts to establish water quality trading markets in the country. Water quality trading has the potential to save millions of dollars in meeting water quality goals—but there are costs associated with establishing, running, and maintaining a water quality trading program. Setting effective policies can alleviate some of this burden; however, establishing efficient trading programs requires coordination between state and federal governments, and among federal agencies.

This Town Hall will outline challenges to establishing environmental markets, focusing on ways the federal government is coordinating to identify solutions. Town Hall Participants represent the Chesapeake Bay Environmental Markets Team, a group of twelve federal agencies tasked with improving effectiveness and efficiency of environmental markets in the Chesapeake Bay watershed. Participants will provide insight drawing on their experiences with ecosystem services and environmental markets in the Chesapeake Bay.

This Town Hall will serve a venue to:

- Engage federal leadership on current coordination in the Chesapeake Bay regarding water quality trading
- Provide feedback and lessons learned on water quality trading development
- Discuss ways the federal government can continue to facilitate the development of water quality trading markets
- Learn how to engage in water quality trading efforts in the Chesapeake Bay

Wednesday, December 10, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons D-E

Linking Health and Nature: Making Sure People Are Really Part of Ecosystem Services

Town Hall Organizers and Presenters:

Bobby Cochran, Executive Director, Willamette Partnership

Brad Gentry, Professor in the Practice, Co-Director of the Center for Business & the Environment, Director of the Research Program on Private Investment and the Environment, Yale University

Fletcher Beaudoin, Assistant Director, Institute for Sustainable Solutions, Portland State University

Brian Kittler, Western Regional Director, Pinchot Institute for Conservation

Sam Baraso, Ecosystem Services Project Manager, Willamette Partnership

Description:

There is an emerging body of research documenting the health benefits of access to nature. Access to parks and increases in urban tree canopy and trails are showing how they can combat chronic disease, reduce respiratory ailments, and improve mental health. What would it take for Kaiser Permanente to write prescriptions for walks in the woods instead of Ritalin? Could Medicare reimburse city parks departments for park maintenance costs? Could we design greenways to improve air quality in low income neighborhoods? Could states provide access to in-home health services to keep forest landowners and ranchers on their lands longer and managing more sustainably? Are the urban planners of the future part conservation planner and part public health planner with ecosystem service metrics being a common tool they use for both aspects of their job?

Answers to these questions are closer than they've ever been. This session will explore the conversations, state of knowledge, actions on the ground, and needed next steps to link health and nature more deeply.

Too often, we forget about how the frame of ecosystem services was developed to connect nature to human well-being. We have also not done enough to seriously address equity in our work. Concentrating on linking health and nature helps us address some fundamental challenges facing the world today:

- Median age for landowners is often in the late 60s, and we're not keeping their kids on the land;
- Rural communities are facing the same demographic challenges, undermining institutions like schools, hospitals, and the economy that depend on a diversified workforce;
- Your zip code is a better determinant of health than your genetic code, according to a study completed by the Robert Wood Johnson Foundation, especially for low income and minority communities;
- Health care has never been a good solution for low income and minority communities, where social and environmental factors drive a much greater proportion of health outcomes;
- Conservation funding has never competed well with health and education spending;
- Conservation needs a broader constituency of support, and when asked to name the most important environmental issues, people say clean air, clean water, and natural places to play (i.e., they care about their health).

Target Audience:

This session will be of interest to federal agencies exploring how to link policy areas, researchers looking for ideas to explore, and participants interested in the equity and human aspects of ecosystem services. The session can also help draw in audiences ACES has not been able to pull in to date (e.g., NIH, HHS, etc.).

Wednesday, December 10, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons F-G

***An Interdisciplinary Approach to Assessing Ecosystem Service Values –
Moving Beyond Economics***

Town Hall Organizers and Presenters:

David E. Ervin, Senior Fellow, Institute for Sustainable Solutions, Professor Emeritus of Economics and Environmental Management, Portland State University

Sara Vickerman, Defenders of Wildlife

Nikola Smith, U.S. Forest Service

Jeffrey Thomas, Puyallup Tribe

David Batker, Earth Economics

Description:

There has been a veritable explosion in ecosystem service valuation of late. Public and private organizations are attempting to place values on clean air and drinking water, energy, carbon sequestration, flood mitigation, wildlife habitat, and the many other benefits from nature to make better decisions about ecosystem service management. However, some of the assessments lack a comprehensive accounting of all values in play and rigor in their use of quantitative and qualitative methods.

Economics has been understandably dominant in guiding the valuation studies to date. These “first generation” approaches often follow a cost-benefit framework that neglects salient social and ecological values not susceptible to monetary valuation. Examples include social (class) equity effects, Native American cultural values, and intrinsic ecological values. Their omission can cause unintended public reactions that stymie holistic long run management of ecosystems.

A “second generation” of ecosystem service values assessment, using all domains in sustainability science – economic, social, and ecological – is being developed. This approach provides a richer picture of the complex human-environment relationships and can foster more sustainable management of ecosystems. The opening presentation summarizes the results of an interdisciplinary expert workshop that developed ten principles to facilitate such holistic assessments of the full set of values. The expert panel will discuss the merits and challenges to implementing a fuller accounting of nature’s benefits and engage the audience in a lively dialogue.

Key questions to be explored include:

- Why is it important to move beyond cost-benefit analysis in ES valuation studies?
- How would application of these principles change valuation assessments?
- How might these principles be incorporated into government programs?
- Do current policies and processes, e.g., NEPA, conflict or complement these principles?
- Where might these principles be applied to test their utility and identify challenges?
- What are the biggest challenges to bringing non-monetary values into ES values assessments?

Wednesday, December 10, 2014 | 12:15pm-1:20pm | Grand Ballroom Salon H

Launch of the President's Ecosystem Vulnerability Climate Data Initiative and EcoINFORMA: Using Data and Tools to Build Resilience

Town Hall Organizers and Presenters:

Olivia Ferriter, U.S. Geological Survey and U.S. Department of the Interior

Jonathan Smith, U.S. Geological Survey

Sarah Abdelrahim, U.S. Department of the Interior

Description:

Please join us for a first look at data and tools, newly available as part of the Administration's emphasis on preparing communities for climate change, protecting biodiversity and gaining a better understanding of ecosystem services and ecosystem vulnerability. This Town Hall will feature the President's Climate Data Initiative and the utility of EcoINFORMA, and will highlight several innovative tools that can be used for managing biodiversity, carbon sequestration, wildland fires, invasive species, and water resources. In addition, a global dataset mapping ecosystems will be introduced for the first time. This dataset is the culmination of a collaboration between the U.S. Geological Survey and the ESRI Corporation.

The President's Climate Data Initiative (CDI) is an interagency effort to build an online catalog of data products at www.data.gov/climate/ that will help the Nation prepare for the impacts of climate change. The CDI catalog that relates to Ecosystem Vulnerability to climate change will be announced by Secretary of the Interior Sally Jewell on December 9, 2014, during the ACES plenary session, along with the Ecoinformatics-based Open Resources and Machine Accessibility (EcoINFORMA) website (www.data.gov/ecosystems/). EcoINFORMA is the strategy for mobilizing and integrating Federal environmental data as recommended in the President's Council of Advisors on Science and Technology's 2010 report on "Sustaining Environmental Capital". Important components include a data catalog at data.gov/ecosystems, a geospatial data integrator and viewer on the Federal Geographic Data Committee's Geospatial Platform (www.geoplatform.gov) and thematic hubs such as Biodiversity Information Serving Our Nation (BISON - bison.usgs.ornl.gov), EnviroAtlas (enviroatlas.epa.gov) – the ecosystem services hub, and the Multi-Resolution Land Characteristics Consortium (MRLC) viewer and products.

Both the CDI catalog on ecosystem vulnerability and EcoINFORMA will provide extensive, up-to-date data and tools to help the public anticipate, mitigate, and adapt to the impacts of climate change and to develop plans for ensuring the health of ecosystems and provisioning of ecosystem services. A new map of Global Ecological Land Units, at a 250 m spatial resolution, developed in collaboration between USGS and ESRI, will be demonstrated. These global ecosystems were commissioned by the Group on Earth Observations (GEO) as part of the Global Earth Observations System of Systems (GEOSS) intergovernmental protocol. Ecosystems were developed as an integration of global bioclimate regions, global land forms, global geology, and global land cover.

The Town Hall will offer participants a chance to see the websites, ask questions, and provide feedback on the newly launched products to help identify potential areas of improvement, as well as opportunities for application collaborations.

Wednesday, December 10, 2014 | 7:30pm-8:35pm | Grand Ballroom Salons F-G

Policy Track - Ecosystem Services in Federal Decision Making: Synthesis and Reflection

Town Hall Organizers and Presenters:

Erica Goldman, Assistant Director for Science Policy Outreach, COMPASS

Lynn Scarlett, Managing Director of Public Policy, The Nature Conservancy

Melanie Stansbury, Program Examiner, Office of Management and Budget

Stuart Levenbach, Policy Analyst, Office of Information and Regulatory Affairs, OMB

Laura Petes, Senior Policy Advisor, Office of Science and Technology Policy

Emma Roach, Program Examiner, Office of Management and Budget

David Wegner, Professional Staff (former), U.S. Congress House Committee on Transportation Infrastructure (Ret.)

Lydia Olander, Director, Ecosystem Services Program, Duke University

Description:

This town hall will be the culminating event of the ACES policy track. Over two days of panels and interactive discussions, policymakers, scientists, practitioners, and others will have come together to discuss the nexus of ecosystem services and federal decision-making. These discussions will have spanned topics such as budget, policy tools, climate resilience, water, and ecosystem restoration. The panels will have looked at opportunities to integrate ecosystem services in federal decision-making and illuminated potential barriers to uptake, across a wide range of decision contexts. The town hall will offer an opportunity to synthesize these discussions and chart a path for moving forward.

The town hall session will provide an opportunity for policymakers, scientists, and practitioners to walk away with a clear sense of the state of ecosystem services science and transformative decision points, giving the ACES community a clear idea of the remaining needs for decision makers. This discussion will help frame a call to action for the ACES community, addressing the following questions:

- What are the near-term opportunities for incorporating ecosystem services in federal decision-making?
- What do decision-makers need most urgently to promote a broad uptake of ecosystem services approaches?
- How can the ACES community be most helpful? Where are the opportunities for continued engagement?

The town hall will bring together the moderators from each of the topical sessions into a panel of five speakers. Each panelist will briefly present the top take home messages from each of the five topical sessions. A dynamic moderator from outside the federal government will ensure an interactive discussion between the audience and the panel.

Proposed Session Agenda:

7:30pm-7:35pm: Introduction and Welcome, discussion of goals for the town hall (COMPASS)

7:35pm-7:40pm: Moderator introduction and framing remarks (Lynn Scarlett)

7:40pm-8:00pm: Panelist remarks and report out from the policy track topical sessions

8:05pm-8:10pm: Discussant remarks (Lydia Olander)

8:10pm-8:25pm: Moderated audience discussion with panel

8:25pm-8:35pm: Moderator wrap up and COMPASS closing

Thursday, December 11, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons D-E

Applying an Ecosystem Services Framework to Climate Change Adaptation

Town Hall Organizers and Presenters:

Greg Arthaud, Acting National Program Leader Economics Research, U.S. Forest Service

Frank Casey, Economist, Ecosystem Services Theme Lead, U.S. Geological Survey

Carl Shapiro, Director, USGS Science and Decisions Center, Senior Economist, Energy and Minerals, and Environmental Health, U.S. Geological Survey

Dr. David Ervin, Professor of Environmental Management, Professor of Economics, and Fellow, Center for Sustainable Processes and Practices, Portland State University

Olivia Ferriter, Deputy Director, Office of Policy Analysis, Department of the Interior

Dr. Melissa Kenny, Assistant Research Professor, Environmental Decision Analysis, University of Maryland

Description:

Climate and land use change will significantly impact ecosystem services and natural capital. These impacts, and the consequences from potential human responses, must be explicitly considered in planning and adaptation decision making. An ecosystem services approach provides an analytical framework for considering the biophysical consequences from climate change and adaptation scenarios and their impacts on monetary and non-monetary values to humans.

This town hall session will provide an opportunity to discuss recent efforts to advance the use of an ecosystem services approach to inform adaptation decisions. The town hall is designed for scientists, managers, practitioners, and decision makers with interest in climate and land use change and how an ecosystem services approach can be applied to inform critical national and local decisions.

This town hall builds upon and expands previous workshops and meetings which started at the National Council for Science and the Environment (NCSE) Conference on Building Climate Solutions in January 2014. The symposium and workshop held at the NCSE Conference identified key issues to be addressed in three areas: (1) the policy context; (2) biophysical and socioeconomic metrics; and (3) monetary and non-monetary valuation. A synthesis describing key issues that need to be considered in developing a strategy for incorporating ecosystem services into adaptation decision making will be discussed at the Town Hall, as well as the outcomes from the working groups associated with each of these topics. Policy topics to be discussed include a) the role of the federal government, b) coordinating a common set of climate change scenarios across federal agencies, and c) whether a common ecosystem services framework across agencies is desired, needed, and possible? Topics related to metrics include a) what baseline metrics are available on the current status of ecosystem services that will be severely impacted by climate change, b) what additional baseline data needs to be generated, and c) what processes and methods do we use so that biophysical metrics resulting from climate change can be applied to ecosystem service valuation. Finally, the valuation topic will address such questions as “what new or emerging methods and tools that have unusual promise in valuing changes in ecosystem services resulting from climate change and adaptation decisions,” “how can uncertainty be incorporated into estimates,” “how can we build upon the methods and results from the reinsurance industry, and can methods such as benefits transfer be used effectively and at a reasonable cost?”

Thursday, December 11, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons F-G

Strategy-Building for Ecosystem Services and Markets at USDA

Town Hall Organizers and Presenters:

Kathryn Zook, U.S. Department of Agriculture, Office of Environmental Markets

Ann C. Mills, Deputy Under Secretary for Natural Resources and Environment, USDA

Thomas Tidwell, Chief, USDA Forest Service

Jason Weller, Chief, USDA Natural Resources Conservation Service

Description:

Incorporating ecosystem services into planning and decision-making is a priority within the federal government, and USDA has committed to promoting ecosystem services and supporting the development of emerging environmental markets. The Forest Service and Natural Resources Conservation Service have led efforts to develop ecosystem services strategies and policy at USDA. The Natural Resources Conservation Service holds environmental values at the core of its mission, and has long incorporated ecosystem services considerations into conservation programs and strategies. In 2012, the Forest Service formally included ecosystem service considerations in the Forest Planning Rule, which dictates forest planning, assessments, and project implementation.

This town hall will serve as a venue to:

- Share the basics of existing and in-progress ecosystem service strategies at USDA
- Take a step back and allow for comment and reflection on the utility of having a strategy
- Share thoughts about how other federal agencies might approach ecosystem services planning, including the conditions that must exist for a successful strategy
- Request feedback from federal agencies and the public about existing approaches and discuss new ideas
- Discuss the role of non-federal partners and how they can best participate

Thursday, December 11, 2014 | 5:45pm-6:50pm | Grand Ballroom Salons D-E

Leveraging Partnerships to Enhance Preparedness and Resilience for Climate Change and Ecosystem Services

Town Hall Organizers and Presenters:

Ilya Fischhoff, Senior Scientist, National Climate Assessment, U.S. Global Change Research Program
Emily Cloyd, Public Participation and Engagement Coordinator, National Climate Assessment, U.S. Global Change Research Program

Dennis Ojima, Professor, Ecosystem Science and Sustainability Department, Colorado State University

Emily Seyller, Inform Decisions and Adaptation Science Program lead, United States Global Change Research Program; Co-lead, Adaptation and Mitigation Nexus (AMNex) NCAnet Affinity Group

Adrienne Antoine, Program Manager, Coastal and Ocean Climate Applications; Climate Program Office, National Oceanographic and Atmospheric Administration

Amanda Campbell, Environmental Planner, Department of Environmental Programs, Metropolitan Washington Council of Governments (MWCOC)

Sue Wotkyns, Climate Change Program Manager, Institute for Tribal Environmental Professionals, Northern Arizona University

Description:

Creating partnerships can enhance climate change preparedness and resilience. Many partnerships that address ecosystem services are well-positioned to include a stronger climate link. Given resource constraints, it is important to leverage these existing partnerships, create links between existing efforts, and identify any gaps where new capabilities are needed to inform decisions and actions on-the-ground. This town hall will provide a forum to discuss these challenges and opportunities.

Five speakers will give 3-minute introductions to partnerships at different scales—international, national, regional, local, and tribal. Each speaker will address how and when the partnership was formed, the types or organizations involved, successes and challenges, and one thing they would like to do differently in the partnership.

Questions about partnerships:

- Are you aware of partnerships at these levels?
- What makes these partnerships successful, and what challenges do they face?
- What helps you be involved or limits your involvement in partnerships?
- How do we create additional support for partnerships?
- How do we build connections within and between scales?

Questions about how partnerships support decisions and actions:

- How have partnerships helped you convene a conversation about climate change and ecosystem services?
- How have partnerships helped you facilitate decision-making about climate change and ecosystem services?
- How have partnerships helped facilitate your taking action regarding climate change and ecosystem services?

Target Audience:

The target audience is all who are interested in partnerships for ecosystem services and climate change, from the local to international scales. The session is intended to provide value to scientists and practitioners in diverse sectors. The benefit of bringing this topic before a town hall is to promote exchange, learning, and new connections among participants who have experiences with partnerships at different levels and on different aspects of ecosystem services and climate change.

Thursday, December 11, 2014 | 5:45pm-6:50pm | Grand Ballroom Salons F-G

What is Ecosystem Accounting Anyway? Could it be a Game Changer for Sustainable Development?

Town Hall Organizers and Presenters:

Rosimeiry Portela, Ecological Economist, Senior Director, Lead, Economics Team of the Moore Center for Science and Oceans at Conservation International (CI)

Glenn-Marie Lange, Department of Agriculture and Environmental Services, The World Bank

Description:

Let's face it - accounting is really not the most stimulating thing to talk about unless you are one of those people who recognize that the standardized systems countries use to measure economic activities has neglected key contribution of nature to the economy. If that is the case, then environmental – economic accounting, with its ultimate goal of including critical information such as ecosystem goods and services into the core of official economic indicators and statistics, is ... well, exciting!

In this town hall, we will briefly provide an overview of environmental-economic accounting, as proposed by the United Nations System of Environmental-Economic Accounting (SEEA), focusing on recent advances in Experimental Ecosystems Accounting (EEA). Methodological approaches for integrated assessments and measurement of ecosystem assets, goods, and services will be informally discussed from the perspective of ongoing pilot initiatives. These will include examples from the World Bank-led global partnership Wealth Accounting and Valuation of Ecosystem Services (WAVES) and the Ecosystem Values, Assessment and Accounting (EVA) implemented by Conservation International.

Our target audience is broad, as is the subject of accounting, including researchers and practitioners interested on the latest development of methodological approaches required for ecosystems accounting as well as on how the incorporation of nature's benefits into an accounting framework can support better decisions for development.

Through and open an casual exchange ideas on the advances, challenges, and the way forward in ecosystems accounting we hope to both enhance understanding on the relevance of these accounts while stimulating enthusiasm for research in this field. As ecosystem accounting is in its infancy, their further development by a community of practice such as ACES will most certainly support the mainstreaming of natural resources into development planning.

Public Listening Session Description

Coastal Green Infrastructure for Climate Resilience: Knowledge Gaps and Research Needs

Public Listening Session

Monday, December 8, 2014 | 11:45 AM – 12:45 PM
Grand Ballroom Salon A

Description:

The *Hurricane Sandy Rebuilding Strategy* calls for the Federal government to advance the broad integration of green infrastructure strategies into community development and planning. In response, the interagency Coastal Green Infrastructure and Ecosystem Services (CGIES) Task Force, organized under the National Science and Technology Council, is developing a Federal research agenda for quantification and valuation of benefits provided by coastal green infrastructure, with a focus on benefits and services that enhance resilience to climate change. This public listening session provides an opportunity for researchers, program managers, planners, and other practitioners and stakeholders to provide individual input on the most pressing knowledge gaps and research needs related to valuing the benefits of coastal green infrastructure for climate resilience.

Moderators:

Anne Kinsinger, Associate Director for Ecosystems, USGS (CGIES co-chair)

Hannah Safford, SINSI Fellow, White House Office of Science and Technology Policy

David Yoskowitz, Chief Economist, NOAA (CGIES co-chair)



Agenda-at-a-Glance

Sunday, December 7, 2014

- 5:00pm-7:00pm Pre-Conference Registration Open, *Skyview Lounge*
- 5:00pm-7:00pm Early Exhibitor Move-In & Poster Set-Up, *Arlington Ballroom Salons 1-3*

Monday, December 8, 2014

- 7:00am-5:00pm Conference Registration Open, *Skyview Lounge*
- 7:00am-8:00am Morning Refreshments & Exhibit/Poster Set-Up, *Arlington Ballroom Salons 1-3*
- 8:00am-8:00pm Ad Hoc Space Available, *Jefferson, Madison, Jackson Rooms (Lobby Level)*
- 8:00am-9:30am Morning Pre-Conference Workshops
- 9:30am-10:00am AM Break, *Arlington Ballroom Salons 1-3*
- 10:00am-11:30pm Morning Pre-Conference Workshops Continued
- 11:30am-1:00pm Lunch Break - On Own
- 11:45am-12:45am Public Listening Session, Grand Ballroom Salon A
- 1:00pm-2:30pm Afternoon Pre-Conference Workshops
- 2:30pm-3:00pm PM Break, *Arlington Ballroom Salons 1-3*
- 3:00pm-4:30pm Afternoon Pre-Conference Workshops Continued
- 4:45pm-5:50pm Evening Town Hall Meetings
- 6:00pm-7:00pm Welcome Happy Hour Social, *Hotel Lounge/Atrium*

Tuesday, December 9, 2014

- 7:00am-5:00pm Conference Registration Open, *Skyview Lounge*
- 7:00am-8:00am Morning Refreshments & Poster Set-Up, *Arlington Ballroom Salons 1-3*
- 8:00am-8:00pm Ad Hoc Space Available, *Jefferson, Madison, Jackson Rooms (Lobby Level)*
- 8:00am-10:00am Opening Plenary Session, *Arlington Ballroom Salons 4-6*
- 10:00am-10:30am AM Break, *Arlington Ballroom Salons 1-3*
- 10:30am-12:00pm Plenary Session, *Arlington Ballroom Salons 4-6*
- 12:00pm-1:30pm Boxed Lunch, *Arlington Ballroom Salons 1-3*
- 12:15pm-1:20pm Lunch Town Hall Meetings
- 1:30pm-3:15pm Concurrent Sessions
- 3:15pm-3:45pm PM Break, *Arlington Ballroom Salons 1-3*
- 3:45pm-5:30pm Concurrent Sessions
- 5:45pm-6:50pm Evening Town Hall Meetings

Wednesday, December 10, 2014

7:00am-5:00pm	Conference Registration Open, <i>Skyview Lounge</i>
7:00am-8:00am	Morning Refreshments, <i>Arlington Ballroom Salons 1-3</i>
8:00am-8:00pm	Ad Hoc Space Available, <i>Jefferson, Madison, Jackson Rooms (Lobby Level)</i>
8:00am-9:45am	Plenary Session, <i>Arlington Ballroom Salons 4-6</i>
9:45am-10:15am	AM Break, <i>Arlington Ballroom Salons 1-3</i>
10:15am-12:00pm	Concurrent Sessions
12:00pm-1:30pm	Boxed Lunch, <i>Arlington Ballroom Salons 1-3</i>
12:15pm-1:20pm	Lunch Town Hall Meetings
1:30pm-3:15pm	Concurrent Sessions
3:15pm-3:45pm	PM Break, <i>Arlington Ballroom Salons 1-3</i>
3:45pm-5:30pm	Concurrent Sessions
5:45pm-7:45pm	Poster Reception, <i>Arlington Ballroom Salons 1-3</i>
7:30pm-8:35pm	Evening Town Hall Meeting

Thursday, December 11, 2014

7:00am-5:00pm	Conference Registration Open, <i>Skyview Lounge</i>
7:00am-8:00am	Morning Refreshments, <i>Arlington Ballroom Salons 1-3</i>
8:00am-8:00pm	Ad Hoc Space Available, <i>Jefferson, Madison, Jackson Rooms (Lobby Level)</i>
8:00am-9:45am	Plenary Session, <i>Arlington Ballroom Salons 4-6</i>
9:45am-10:15am	AM Break, <i>Arlington Ballroom Salons 1-3</i>
10:15am-12:00pm	Concurrent Sessions
12:00pm-1:30pm	Boxed Lunch, <i>Arlington Ballroom Salons 1-3</i>
12:15pm-1:20pm	Lunch Town Hall Meetings
1:30pm-3:15pm	Concurrent Sessions
3:15pm-3:45pm	PM Break, <i>Arlington Ballroom Salons 1-3</i>
3:45pm-5:30pm	Concurrent Sessions
5:45pm-6:50pm	Evening Town Hall Meetings

Friday, December 12, 2014

7:00am-12:00pm	Conference Registration Open, <i>Skyview Lounge</i>
7:00am-8:00am	Morning Refreshments & Poster Removal, <i>Arlington Ballroom Salons 1-3</i>
8:00am-12:00pm	Ad Hoc Space Available, <i>Jefferson, Madison, Jackson Rooms (Lobby Level)</i>
8:00am-9:45am	Plenary Session, <i>Arlington Ballroom Salons 4-6</i>
9:45am-10:15am	AM Break & Exhibitor Strike, <i>Arlington Ballroom Salons 1-3</i>
10:15am-12:00pm	Closing Plenary Session, <i>Arlington Ballroom Salons 4-6</i>
12:00pm-2:00pm	Last Call - Poster, Display, and Exhibit Removal, <i>Arlington Ballroom Salons 1-3</i>

Detailed Program Agenda

Sunday	Sunday, December 7, 2014			
5:00pm-7:00pm	Pre-Conference Registration Open - Skyview Lounge Early Exhibitor Move-In and Poster Set-Up - Arlington Ballroom Salons 1-3			
Monday	Monday, December 8, 2014			
7:00am-5:00pm	Conference Registration Open - Skyview Lounge			
7:00am-8:00am	Morning Refreshments and Exhibit/Poster Set-Up - Arlington Ballroom Salons 1-3			
8:00am-8:00pm	Ad Hoc Space Available - Jefferson, Madison, Jackson Rooms (Lobby Level)			
	Morning Pre-Conference Workshops			
8:00am-11:30am	Workshop 1-AM	Workshop 2-AM	Workshop 3-AM	Workshop 4-AM
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
Organizer	Lydia Olander, Duke University, National Ecosystem Services Partnership	Joseph Nicolette & Lionel Camus, ENVIRON International Corp. & Fram Centre	Leah Harris Palm-Forster, Michigan State University	Katie Riley & Jeremy Sokulsky, Environmental Incentives, LLC
8:00am-9:30am	Methods for Incorporating Ecosystem Services into Planning and Decision-Making All-Day Workshop	Ecosystem Services, Climate Change, and the Arctic Environment	Coordinated Approaches to Enhance Ecosystem Services in Watersheds Dominated by Agriculture	Designing Performance- Driven Ecosystem Service Programs
9:30am-10:00am	AM Break - Arlington Ballroom Salons 1-3			
10:00am-11:30am	AM Workshop Continued	AM Workshop Continued	AM Workshop Continued	AM Workshop Continued
11:30am-1:00pm	Lunch Break - On Own			
11:45am-12:45pm	Public Listening Session - Grand Ballroom Salon A			
	Coastal Green Infrastructure for Climate Resilience: Developing a Federal Research Agenda Moderators Anne Kinsinger, Associate Director for Ecosystems, U.S. Geological Survey Hannah Safford, SINSI Fellow, White House Office of Science and Technology Policy David Yoskowitz, Chief Economist, NOAA Stakeholders are invited to provide individual input to help inform the development of a Federal research agenda on the role of coastal green infrastructure in enhancing climate resilience.			
	Afternoon Pre-Conference Workshops			
1:00pm-4:30pm	Workshop 1-PM	Workshop 2-PM	Workshop 3-PM	Workshop 4-PM
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
Organizer	Lydia Olander, Duke University, National Ecosystem Services Partnership	Carrie Sanneman, Willamette Partnership	Alex Echols, Sand County Foundation	Stacy Small-Lorenz, Environmental Defense Fund
1:00pm-2:30pm	Continued: Methods for Incorporating Ecosystem Services into Planning and Decision-Making All-Day Workshop	Best Practice in Program Design: Key Decisions in Building Ecosystem Service Payment, Incentive, or Trading Programs that Work	Improving Ecosystem Services from Agricultural Lands: Modern Technology and Markets	Getting Better Biodiversity Outcomes From Coordinated Environmental Markets
2:30pm-3:00pm	PM Break - Arlington Ballroom Salons 1-3			
3:00pm-4:30pm	PM Workshop Continued	PM Workshop Continued	PM Workshop Continued	PM Workshop Continued
	Workshops Conclude			
	Monday Evening Town Hall Meetings			
4:45pm-5:50pm	Habitat Exchange Mock Transaction		Integrating the Value of Nature into Business Decisions	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Katie Riley & Jeremy Sokulsky, Environmental Incentives, LLC		Sheila Walsh Reddy, The Nature Conservancy	
12:15pm-12:20pm	Introduction & Overview		Introduction & Overview	
12:20pm- 1:20pm	Town Hall Discussion		Town Hall Discussion	
6:00pm-7:00pm	Welcome Happy Hour Social - Hotel Lounge/ Atrium			

Sunday	Sunday, December 7, 2014			
5:00pm-7:00pm	Pre-Conference Registration Open - Skyview Lounge Early Exhibitor Move-In and Poster Set-Up - Arlington Ballroom Salons 1-3			
Monday	Monday, December 8, 2014			
7:00am-5:00pm	Conference Registration Open - Skyview Lounge			
7:00am-8:00am	Morning Refreshments and Exhibit/Poster Set-Up - Arlington Ballroom Salons 1-3			
8:00am-8:00pm	Ad Hoc Space Available - Jefferson, Madison, Jackson Rooms (Lobby Level)			
	Morning Pre-Conference Workshops			
8:00am-11:30am	Workshop 5-AM	Workshop 6-AM	Workshop 7-AM	Workshop 8-AM
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
Organizer	Amy Rosenthal, Natural Capital Project - World Wildlife Fund	Marilyn Buchholtz ten Brink, Interagency Working Group on Ocean Social Sciences, US EPA	Constance Best, Pacific Forest Trust	Douglas Bruggeman, Ecological Services & Markets
8:00am-9:30am	Back to the Future: Scenario Development for Ecosystem Services (participants encouraged to bring own laptop)	Incorporating Ecosystem Services Concepts and Measures into Coastal, Marine and Great Lakes Management	The Forest Carbon Offset Market Comes of Age: Lessons from the Launch of California’s Landmark Climate Action Program	Modeling Species Banking at a Landscape- Scale (participants must provide own PC laptop)
9:30am-10:00am	AM Break - Arlington Ballroom Salons 1-3			
10:00am-11:30am	AM Workshop Continued	AM Workshop Continued	AM Workshop Continued	AM Workshop Continued
11:30am-1:00pm	Lunch Break - On Own			
11:45am-12:45pm	Public Listening Session - Grand Ballroom Salon A			
	Coastal Green Infrastructure for Climate Resilience: Developing a Federal Research Agenda Moderators Anne Kinsinger, Associate Director for Ecosystems, U.S. Geological Survey Hannah Safford, SINSI Fellow, White House Office of Science and Technology Policy David Yoskowitz, Chief Economist, NOAA Stakeholders are invited to provide individual input to help inform the development of a Federal research agenda on the role of coastal green infrastructure in enhancing climate resilience.			
	Afternoon Pre-Conference Workshops			
1:00pm-4:30pm	Workshop 5-PM	Workshop 6-PM	Workshop 7-PM	Workshop 8-PM
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
Organizer	Christine Feurt, University of New England	Timothy Boucher, The Nature Conservancy	Jeffrey Thomas, Puyallup Tribe of Indians	Jonathan Kochmer & Nora Wahlund, Earth Economics
1:00pm-2:30pm	Communicating Ecosystem Services Using Collaborative Learning and Mental Models	Natural Infrastructure: Reducing Risks and Generating Co-Benefits Along Coastlines and in Floodplains	Ecosystems and Community/ Tribal Social-Ecological Systems	Ecosystem Valuation Toolkit: Online Tools for Valuing Natural Capital (participants must provide own laptop)
2:30pm-3:00pm	PM Break - Arlington Ballroom Salons 1-3			
3:00pm-4:30pm	PM Workshop Continued	PM Workshop Continued	PM Workshop Continued	PM Workshop Continued
	Workshops Conclude			
	Monday Evening Town Hall Meetings			
4:45pm-5:50pm	Habitat Exchange Mock Transaction		Integrating the Value of Nature into Business Decisions	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Katie Riley & Jeremy Sokulsky, Environmental Incentives, LLC		Sheila Walsh Reddy, The Nature Conservancy	
12:15pm-12:20pm	Introduction & Overview		Introduction & Overview	
12:20pm- 1:20pm	Town Hall Discussion		Town Hall Discussion	
6:00pm-7:00pm	Welcome Happy Hour Social - Hotel Lounge/ Atrium			

Program Agenda continues on the following page.

Tuesday	Tuesday, December 9, 2014	
7:00am-5:00pm	Conference Registration Open - <i>Skyview Lounge</i>	
7:00am-8:00am	Morning Refreshments and Poster Set-Up - <i>Arlington Ballroom Salons 1-3</i>	
8:00am-8:00pm	Ad Hoc Space Available - <i>Jefferson, Madison, Jackson Rooms (Lobby Level)</i>	
8:00am-10:00am	Opening Plenary Session - <i>Arlington Ballroom Salons 4-6</i>	
8:00am-8:10am	Introductions and Announcements Frank Casey , Science and Decisions Center, U.S. Geological Survey, ACES 2014 Conference Chair	
8:10am-8:40am	ACES 2014 Welcome Addresses Suzette Kimball , Acting Director, U.S. Geological Survey Thomas Tidwell , Chief, USDA Forest Service	
8:45am-10:00am	Plenary Session 1 Ecosystem Services: Key Advances and Challenges in Linking Science, Practice, and Decision Making Moderator: Mark Schaefer , Global Fellow, Woodrow Wilson International Center for Scholars Panel Members Ann M. Bartuska , Deputy Under Secretary for Research, Education, and Economics, U.S. Department of Agriculture William Ginn , Executive Vice President, Global Conservation Initiative, The Nature Conservancy Stephen Polasky , Regents Professor and Fesler-Lampert Professor of Ecological & Environmental Economics, University of Minnesota J.B. Ruhl , David Daniels Allen Distinguished Chair of Law, Vanderbilt University Steven L. Stockton , Director of Civil Works, U.S. Army Corps of Engineers	
10:00am-10:30am	AM Break - <i>Arlington Ballroom Salons 1-3</i>	
10:30am-12:00pm	Plenary Session - <i>Arlington Ballroom Salons 4-6</i>	
	Plenary Session 2 Ecosystem Services and Public Policy: Status, Opportunities, and Challenges Moderator: Lynn Scarlett , Managing Director of Public Policy, The Nature Conservancy Keynote Address - Sally Jewell , Secretary, U.S. Department of the Interior Remarks and Discussion Jay Jensen , Associate Director for Land & Water Ecosystems, White House Council on Environmental Quality Robert Bonnie , Under Secretary for Natural Resources and Environment, U.S. Department of Agriculture	
12:00pm-1:30pm	Boxed Lunch - <i>Arlington Ballroom Salons 1-3</i>	
	Tuesday Lunch Town Hall Meetings	
12:15pm-1:20pm	Managing Agricultural Hydrology to Deploy Ecosystem Service Markets <i>featuring presentation by Chief Jason Weller, USDA NRCS</i>	Ecosystem Services and Municipal Planning: Engaging Local Decision-Makers
Location	Grand Ballroom Salons D-E	Grand Ballroom Salons F-G
Organizer	Alex Echols, Sand County Foundation	Coeli Hoover, US Forest Service
12:15pm-12:20pm	Introduction & Overview	Introduction & Overview
12:20pm- 1:20pm	Town Hall Discussion	Town Hall Discussion

Tuesday	Tuesday, December 9, 2014			
	Concurrent Sessions - 1			
1:30pm-3:15pm	Session 1A	Session 1B	Session 1C	Session 1D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Ecosystem Services in Agriculture and Forestry	Integrating Ecosystem Services Into Program Planning, Budget, Management, and Performance	Improving Ecosystem Services from Agricultural Lands	The Use of Citizen Science to Advance Ecosystem Services Implementation
Moderator	Robert Deal	Melanie Stansbury	Alex Echols	Dianna Hogan
1:30pm-1:35pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
1:35pm-1:55pm	Vitalie Gulca The Role of Ecosystem Services in Forests of Developing and Developed Countries	<u>Panel Session</u> Ann Bartuska, U.S. Department of Agriculture Sally Collins, Independent Consultant Olivia Ferriter, U.S. Department of the Interior Mark Schaefer, Woodrow Wilson International Center for Scholars	Dave White Bringing DWM for Ecosystem Services to Market: Why DWM is Well Positioned to Enter Ecosystem Service Markets	Pierre Glynn Ecosystem Services and Citizen Science: A New Framework for Engagement
1:55pm-2:15pm	Jeffrey Kline Timber, Carbon Storage, and Habitat Production Possibilities		Mark Kieser Cost Comparison of DWM Ecosystem Service Delivery with Conventional Strategies	Alexey Voinov Values in Modeling: Making Ecosystem Services Operational
2:15pm-2:35pm	Gary Bentrup Designer Landscapes: Enhancing Ecosystem Services on Ag Lands		Brian Hicks Bringing Drainage Water Management for Ecosystem Services to Market: What Farmers Need To Participate	Barbara Martinez Citizen Science and Crowd-Sourced Data To Assess Cultural Goods and Services
2:35pm-2:55pm	Jan Lewandrowski Farm-Level Assessment of the Potential for Managing Crop Production Systems, Livestock Productions Systems, & Agricultural Land		Andrew McElwaine Bringing Agriculture and Municipalities Together to Improve the Environment and Save Money for Taxpayers	Mattijs Van Maasakkers Monitoring and Verification of Ecosystem Services Markets
2:55pm-3:15pm	Dana Bauer Pollination Services and Grower Decision Making		Discussion and Q & A	Discussion and Q & A
3:15pm-3:45pm	PM Break - Arlington Ballroom Salons 1-3			

Tuesday	Tuesday, December 9, 2014			
	Concurrent Sessions - 1			
1:30pm-3:15pm	Session 1E	Session 1F	Session 1G	Session 1H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Arctic Ecosystem Services and Climate Change	Advancing the SEEA Experimental Ecosystem Accounting	How to Use Economic Valuation of Ecosystems to Inform Decision-Making	Cultural Implications for Ecosystem Services 1
Moderator	Lionel Camus & Nina Mari Jørgensen	Mark Eigenraam	Erin Gray	Paula Harrison
1:30pm-1:35pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
1:35pm-1:55pm	Claire Armstrong Arctic Marine Ecosystem Services and Values	Julian Chow Overview of the SEEA Experimental Ecosystem Accounting	Richard Waite Making Ecosystem Valuation Count for Decision Making in the Caribbean	Paul Ringold Research Questions to Identify Ecological Indicators Most Useful for Linking Ecosystems and Human Well-Being
1:55pm-2:15pm	Rolf Anker Ims Ecosystem Services Provided by Terrestrial Habitats in the Arctic	François Soulard Ecosystem Accounting in Canada	Peter Schuhmann The Valuation of Marine Ecosystem Goods and Services in the Caribbean: A Literature Review and Framework for Future Valuation Efforts	Joanna Piwowarczyk Marine and Coastal Ecosystem Services in Daily Experiences of Citizens of Gulf of Gdansk, Southern Baltic
2:15pm-2:35pm	Raychelle Daniel Ecosystem Services in the Arctic from the Local Perspective and Future Challenges in Light of a Changing Environment	Miroslav Honzák Ecosystem Accounting in Peru	David Gill Assessment of the Economic Value of Reef Fishing and Dive Tourism in Caribbean Coastal Communities	Cheryl Willis Revealing Cultural Ecosystem Services at the Coast and in the Sea: Lessons from Cornwall, UK
2:35pm-2:55pm	Kim Holmén Climate Change in Svalbard – Physical Changes	Mark Eigenraam Advancing the SEEA Experimental Ecosystem Accounting: Challenges and Next Steps	Tundi Agardy Valuations in the Broadest Sense Promote Uptake	Kenneth Bagstad Mapping Ecosystem Services for National Park Service Management
2:55pm-3:15pm	Brad Raffle and Joseph Nicolette Climate Change and the Growth of Oil and Gas Exploration in the Arctic	Discussion and Q & A	Steve Polasky Making Ecosystem Valuation Count for National Accounting	Discussion and Q & A
3:15pm-3:45pm	PM Break - Arlington Ballroom Salons 1-3			

Tuesday	Tuesday, December 9, 2014			
	Concurrent Sessions - 2			
3:45pm-5:30pm	Session 2A	Session 2B	Session 2C	Session 2D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Fostering Resilience in the Rogue Basin	Developing Standards for the Application of Ecosystem Services Valuation in Cost-Benefit and Tradeoff Analysis Policy and Decision Tools	Agriculture Perspectives on Water Quality Trading	Links Between Ecosystem Services and Human Well-Being
Moderator	Jodi Schoenen	Stuart Levenbach	Brian Brandt	Frank Casey
3:45pm-3:50pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
3:50pm-4:10pm	Sara Vickerman Assessing Ecological Values in the Rogue Basin of Oregon	<u>Panel Session</u> Jim Boyd, Resources for the Future (RFF) Dixon Landers, U.S. Environmental Protection Agency Doug Lipton, National Oceanic and Atmospheric Administration (NOAA) Steve Polasky, University of Minnesota	Brian Brandt Overview of Ohio River Basin Water Quality Trading and Stimulating Environmental Markets projects from Ag Perspective	Cass Hunter A Participatory Tool for Estimating Future Impacts on Ecosystem Services and Livelihoods in Torres Strait
4:10pm-4:30pm	Jodi Schoenen Conflict and Fragmentation in Land Management		Jeremy Peters Perspective and Engagement of Conservation Districts on WQT Markets	Jeffrey Thomas Developing Tribal Well-being Indicators for the Puyallup Indian Reservation
4:30pm-4:50pm	Gwyn Myer Addressing the Impacts of Climate Change on Ecosystem Benefits in a Management Context		Ryan Bennett Perspective and Engagement of Dairy Industry on WQT Markets	Susan Flensburg Climate Change Health Assessments for Three Coastal, Riverine and Lake System Communities in Southwest Alaska
4:50pm-5:10pm	Nikola Smith Application of Ecological, Social and Economic Values to Land Management Planning and Implementation		Pete Conkle Perspective of Producers and Local SWCD Staff Participating in WQT Markets	Jamie Donatuto Evaluating Human Well-Being in Relation to Shellfish as a Place-Based Cultural Ecosystem Service of the Puget Sound Region of the Salish Sea
5:10pm-5:30pm	Discussion and Q & A		Discussion and Q & A	Richard Pollnac Livelihood Activities, Activity Satisfaction and Well-being: Examples from Coastal Fisheries
	Tuesday Evening Town Hall Meetings			
5:45pm-6:50pm	The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES): Opportunities for Science to Inform International Policy on Biodiversity Change		Federal Coordination in the Chesapeake Bay-Reducing Complexity in Water Quality Trading	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Clifford Duke, Ecological Society of America Charles Perrings, Arizona State University		Kathryn Zook, USDA - Office of Environmental Markets	
5:45pm-5:50pm	Introduction & Overview		Introduction & Overview	
5:50pm-6:50pm	Town Hall Discussion		Town Hall Discussion	

Tuesday	Tuesday, December 9, 2014			
	Concurrent Sessions - 2			
3:45pm-5:30pm	Session 2E	Session 2F	Session 2G	Session 2H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Arctic Ecosystem Services: Policy and Adaptive Decision-Making	Going Mainstream: Applications of Environmental Accounting to Public and Private Investing	The National Climate Assessment and Decision-Making About Ecosystem Services	Cultural Implications for Ecosystem Services 2
Moderator	Nina Mari Jørgensen & Joseph Nicolette	Jeremy Sokulsky	Ilya Fischhoff & Emily Cloyd	Mary Snieckus
3:45pm-3:50pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
3:50pm-4:10pm	Per Fauchald Changes in Ecosystem Service Flows Given Climate Change	Jeremy Sokulsky Principles of Environmental Accounting	Peter Groffman Ecosystems, Biodiversity, and Ecosystem Services	Benson Sherrouse Improving Social-Value Transfer Through Social-Context Matching
4:10pm-4:30pm	Vera Hausner How Does Governance and Socioeconomic Conditions Influence Spatial Use and Priorities of Local People in the Arctic?	David Zippin Applying Environmental Accounting Principles to Improve the Effectiveness of Large-Scale Habitat Conservation Plans	Juli Trtanj Linking Ecosystem Services, Climate, and Public Health	Elizabeth Gomez A Dynamic Ecological and Economic Model Linking Oyster Reef Bioenergetics to Final Ecosystem Services
4:30pm-4:50pm	Suzanne Ban Adaptive Management of Arctic Marine Mammal Populations in Response to Changing Arctic Conditions	Timothy Male Focusing on Outcomes: New Policies and Opportunities to Turn Around Declining Candidate Species	Jim Murley Coastal Community Planning - Challenges and Opportunities	David Blockstein Consequences for Ecosystem Services Today from the Extinction of the Passenger Pigeon (<i>Ectopistes Migratorius</i>) a Century Ago
4:50pm-5:10pm	Lionel Camus and Jack Word Oil Spill Response and Planning in the Arctic: Adaptive Management With a Focus on Ecosystem Services	Elizabeth Lauck Environmental Accounting and Foreign Assistance: Increasing Accountability and Improving Results	Lindene Patton Insurance & Climate Change: Risks, Opportunities and the US NCA3	Zachary Ancona Mapping Social Values and Ecosystem Services Hotspots for National Forests in the Rocky Mountain Region
5:10pm-5:30pm	David Moore Using Ecosystem Services to Demonstrate the Environmental Sustainability of Arctic Oil and Gas Exploration	Jerome Ryan How Environmental Accounting Provides for Increased Private Sector Capital Investment in Ecosystems	Discussion and Q & A	Discussion and Q & A
	Tuesday Evening Town Hall Meetings			
5:45pm-6:50pm	The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES): Opportunities for Science to Inform International Policy on Biodiversity Change		Federal Coordination in the Chesapeake Bay- Reducing Complexity in Water Quality Trading	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Clifford Duke, Ecological Society of America Charles Perrings, Arizona State University		Kathryn Zook, USDA - Office of Environmental Markets	
5:45pm-5:50pm	Introduction & Overview		Introduction & Overview	
5:50pm-6:50pm	Town Hall Discussion		Town Hall Discussion	

Wednesday	Wednesday, December 10, 2014			
7:00am-5:00pm	Conference Registration Open - Skyview Lounge			
7:20am-7:50am	NESP Guidebook Launch - Grand Ballroom Salon F-G			
8:00am-8:00pm	Ad Hoc Space Available - Jefferson, Madison, Jackson Rooms (Lobby Level)			
8:00am-9:45am	Plenary Session - Arlington Ballroom Salons 4-6			
	<p align="center">Plenary Session 3 The Role of Traditional Ecological Knowledge in Ecosystem Service Assessment and Valuation Moderator: Monique Fordham, National Tribal Liaison, U.S. Geological Survey</p> <p align="center">Panel Members Preston Hardison, Natural Resource Department, Tulalip Tribes Doug Harris, Deputy Tribal Historic Preservation Officer, Narragansett Indian Tribal Historic Preservation Office Jim Ransom, Director of Tehotienawakon, Mohawk Council of Akwesasne Margaret Hiza Redsteer, Research Scientist, Flagstaff Science Center, U.S. Geological Survey</p>			
9:45am-10:15am	AM Break - Arlington Salons 1-3			
	Concurrent Sessions - 3			
10:15am-12:00pm	<p align="center">Special Concurrent Session Tribe/Academia Partnership Forges New Frontier in Tribal Historic Preservation & Marine Geoarchaeological Research Location: Arlington Ballroom Salons 4-6 Moderator: Doug Harris Speakers: Doug Harris, John King, and David Robinson</p>			
10:15am-12:00pm	Session 3A	Session 3B	Session 3C	Session 3D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Sustainability and Ecosystem Services	Assessing a Role for an Ecosystem Services Approach in Urban Coastal Management, Green Infrastructure, and Climate Resilience	Environmental Markets 1	Partnerships in Ecosystem Services
Moderator	Carl Shapiro	Laura Petes	Carrie Sanneman	Sara O'Brien
10:15am-10:20am	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
10:20am-10:40am	Steve Polasky Make it Fit	<p align="center">Panel Session Holly Bamford, National Oceanic and Atmospheric Administration (NOAA) David Batker, Earth Economics Michael Curley, Environmental Law Institute (ELI) Mary Ruckelshaus, Natural Capital Project, Stanford University Jody Springer, Federal Emergency Management Agency (FEMA)</p>	Lydia Olander Managing Risks and Liabilities in Environmental Markets in the US	Rachel Muir Supporting the Science Needs for Revitalizing Urban Rivers and Communities Through the Urban Waters Federal Partnership
10:40am-11:00am	Maria Cristina Infante Ecosystem Services Value at Risk: A New Approach for Sustainability		Eric Sprague Connecting Landowners to Forest Mitigation Banking in Maryland	Heidi Huber-Stearns Investments in Watershed Services and Sustainable Institutions
11:00am-11:20am	Shaina Sehgal Integrating Multiple Stakeholders in the Ecological Restoration of an Iron Ore Mine in India		Ederson Zanetti Green Farm: Harmonizing Social Responsibility, Environmental Sustainability and Profitable Business	Deborah McGrath Academic Institutions as Partners in Developing World PES Programs
11:20am-11:40am	Aurélien Bruel Economic Valuation of Changes in Ecosystem Services Provision Within a Life Cycle Approach		Eric Hallstein & Mark Reynolds Using a Reverse Auction to Dynamically Source Bird Habitat	Ione Taylor Ecosystem Services Applied to Graduate Level Education in Energy and Mineral Resources
11:40am-12:00pm	Brain Voigt Visual Resource Management Under Alternative Oil and Gas Development Scenarios in the Moab, UT Region		Doug Bruggeman The Value of Learning about Natural History in Biodiversity Markets	Ann Hayden Peridas Central Valley Habitat Exchange: Creating Voluntary Environmental Markets and Science-based Solutions for People and the Environment

Wednesday	Wednesday, December 10, 2014			
7:00am-5:00pm	Conference Registration Open - <i>Skyview Lounge</i>			
7:20am-7:50am	NESP Guidebook Launch - <i>Grand Ballroom Salon F-G</i>			
8:00am-8:00pm	Ad Hoc Space Available - <i>Jefferson, Madison, Jackson Rooms (Lobby Level)</i>			
8:00am-9:45am	Plenary Session - <i>Arlington Ballroom Salons 4-6</i>			
	<p align="center">Plenary Session 3 <i>The Role of Traditional Ecological Knowledge in Ecosystem Service Assessment and Valuation</i> Moderator: Monique Fordham, National Tribal Liaison, U.S. Geological Survey</p> <p align="center">Panel Members Preston Hardison, Natural Resource Department, Tulalip Tribes Doug Harris, Deputy Tribal Historic Preservation Officer, Narragansett Indian Tribal Historic Preservation Office Jim Ransom, Director of Tehotienawakon, Mohawk Council of Akwesasne Margaret Hiza Redsteer, Research Scientist, Flagstaff Science Center, U.S. Geological Survey</p>			
9:45am-10:15am	AM Break - <i>Arlington Salons 1-3</i>			
	Concurrent Sessions - 3			
10:15am-12:00pm	<p align="center">Special Concurrent Session Tribe/Academia Partnership Forges New Frontier in Tribal Historic Preservation & Marine Geoarchaeological Research</p> <p align="center">Location: Arlington Ballroom Salons 4-6</p> <p align="center">Moderator: Doug Harris</p> <p align="center">Speakers: Doug Harris, John King, and David Robinson</p>			
10:15am-12:00pm	Session 3E	Session 3F	Session 3G	Session 3H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Applying an Ecosystem Services Framework for Urban Decision Making	Ecosystem Services Valuation Perspectives	Linking Decisions to Stakeholder Values in the Guánica Bay Watershed	Coastal and Marine Implications in Ecosystem Services
Moderator	Susan Wachter	Malka Pattison	Patricia Bradley	Greg Reub
10:15am-10:20am	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
10:20am-10:40am	Marc Imhoff Energy, Policy, and Ecosystems Services on a Nine Billion Person Planet: What's Ahead?	Gregory Valatin Insights from Behavioural Economics for Global Sustainability	Patricia Bradley Linking Decisions to Stakeholder Values in the Guánica Bay Watershed, Puerto Rico	David Yoskowitz Ecosystem Services and NOAA's Restore Act Science Program
10:40am-11:00am	Dianna Hogan Integrating Ecosystem Services with Local Land Use Decision Making	Lauretta Burke The Future of Revaluing Ecosystems	William Fisher Decision Scenario Analysis for Addressing Sediment Accumulation in Lago Lucchetti, Puerto Rico	Ariana Sutton-Grier Connecting Stressors, Ocean Ecosystem Services, and Human Health
11:00am-11:20am	David Hsu The Market for Green Infrastructure in Philadelphia	Elliott Campbell Incorporating Ecosystem Services into the Genuine Progress Indicator (GPI)	Debbie Santavy Developing a Biological Condition Gradient for the Protection of Coral Reefs in Guánica Bay	Tracy Rouleau ESV and NOAA's Restore Program: Developing Actionable Information for Local Decision-Making
11:20am-11:40am	Julie Ulrich Expanding Ecosystem Services Using A Network Based Approach To Green Infrastructure	Darius Semmens A Research Synthesis on the Spatial Ecological and Economic Subsidies of Migratory Species	Bob Leeworthy Ecosystem Service Valuation	Anthony Dvaskas Incorporating Natural Capital and Ecosystem Services Impacts into Economic Vulnerability Assessments
11:40am-12:00pm	Discussion and Q & A	Kelley Myers Can We Measure Public Values for Protecting Ecosystem Services?	Susan Yee Assessing Sustainability of Coral Reef Ecosystem Services Using a Spatially-Explicit Decision Support Tool	Evan Branosky Stormwater Retention Credit Trading and Other Green Infrastructure Incentives in the District Of Columbia

Wednesday	Wednesday, December 10, 2014			
12:00pm-1:30pm	Boxed Lunch - Arlington Ballroom Salons 1-3			
12:15pm-1:20pm	Wednesday Lunch Town Hall Meetings			
Linking Health and Nature: Making Sure People Are Really Part of Ecosystem Services		An Interdisciplinary Approach to Assessing Ecosystem Service Values – Moving Beyond Economics		Launch of the President’s Ecosystem Vulnerability Climate Data Initiative and EcoINFORMA: Using Data and Tools to Build Resilience
Grand Ballroom Salons D-E		Grand Ballroom Salons F-G		Grand Ballroom Salon H
Organized By: Bobby Cochran, Willamette Partnership		Organized By: David Ervin, Portland State University		Organized By: Olivia Ferriter, US Geological Survey
Introduction & Overview (5 min)		Introduction & Overview (5 min)		Introduction & Overview (5 min)
Town Hall Discussion (1 hour)		Town Hall Discussion (1 hour)		Town Hall Discussion (1 hour)
	Concurrent Sessions - 4			
1:30pm-3:15pm	Session 4A	Session 4B	Session 4C	Session 4D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Assessing and Managing for Sustainable Rangelands' Ecosystem Goods and Services	Integrating Ecosystem Services Into the Implementation of Water Resource Projects	Environmental Markets 2	Mitigation for One & All: An Integrated Framework for Biodiversity and Ecosystem Services
Moderator	Kristie Maczko	David Wegner	Bobby Cochran	Joshua Goldstein
1:30pm-1:35pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
1:35pm-1:55pm	Brianne Lind A National Social and Economic Survey of Public Lands Ranchers	<u>Panel Session</u> Robyn Colosimo, U.S. Army Joel Corona, U.S. Environmental Protection Agency Martin Doyle, Duke University Mami Hara, City of Philadelphia Benjamin Simon, U.S. Department of the Interior	Barbara Wyse Watershed Restoration: Valuation of Water Supply Benefits	Joshua Goldstein Bringing Ecosystem Services into Regional Mitigation Avoidance Guidance
1:55pm-2:15pm	Nancy Labbe Cows for Conservation		Bobbi Hudson Nutrient Bioextraction with Shellfish, A Viable Component of Water Quality Trading for the Puget Sound Region, Washington State	Lisa Mandle Integrating Ecosystem Services into Impact Assessment and Offset Siting in Colombia and Beyond
2:15pm-2:35pm	Chad Ellis The Value of Technical Assistance		Chris Rea Market Reconstruction and Environmental Protection in an Era of Exchange	Nicholas Miller The Watershed Approach: Leveraging Watershed Outcomes from Site Mitigation
2:35pm-2:55pm	Kim Stackhouse-Lawson Sustainability Assessment of Beef Production		Gwendolen Rees Public Transactions Costs of Nutrient Trading Programs	Christina Kennedy Benefits to Business and Conservation from Landscape-level Mitigation Planning
2:55pm-3:15pm	William Fox An Integrated Social, Economic & Ecological Conceptual (ISEEC) Framework		Jimmy Kagan Ecosystem Services Crediting Strategies for Transportation Agencies	Graham Watkins Integrating Ecosystem Services in Project and Mitigation Decisions at the Inter-American Development Bank
3:15pm-3:45pm	PM Break - Arlington Ballroom Salons 1-3			

Wednesday	Wednesday, December 10, 2014			
12:00pm-1:30pm	Boxed Lunch - Arlington Ballroom Salons 1-3			
12:15pm-1:20pm	Wednesday Lunch Town Hall Meetings			
Linking Health and Nature: Making Sure People Are Really Part of Ecosystem Services	An Interdisciplinary Approach to Assessing Ecosystem Service Values – Moving Beyond Economics	Launch of the President’s Ecosystem Vulnerability Climate Data Initiative and EcoINFORMA: Using Data and Tools to Build Resilience		
Grand Ballroom Salons D-E	Grand Ballroom Salons F-G	Grand Ballroom Salon H		
Organized By: Bobby Cochran, Willamette Partnership	Organized By: David Ervin, Portland State University	Organized By: Olivia Ferriter, US Geological Survey		
Introduction & Overview (5 min)	Introduction & Overview (5 min)	Introduction & Overview (5 min)		
Town Hall Discussion (1 hour)	Town Hall Discussion (1 hour)	Town Hall Discussion (1 hour)		
	Concurrent Sessions - 4			
1:30pm-3:15pm	Session 4E	Session 4F	Session 4G	Session 4H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Urban Forestry Research and Tools for Ecosystem Services Decision-Making	Generating Revenues for the Private Provision of Public Goods	Private Sector Uptake of Ecosystem Services Indicators and Analytical Approaches	How’s that Working? Ecosystem Services from the Perspective of State Regulators
Moderator	Susannah Lerman & Elizabeth Larry	Stephen Swallow	Sissel Waage	Gretchen Greene
1:30pm-1:35pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
1:35pm-1:55pm	J. Morgan Grove Urban Tree Canopy (UTC) Prioritization: How Decision Tools Can Bring People Together To Improve Ecosystem Services	Stephen Swallow Generating Revenue From “Consumers” For Ecosystem Services: Lessons From Bobolink Farming	Elizabeth Uhlhorn Strategy for Implementation of Ecosystem Services Valuation at the Dow Chemical Company	Nicole Maness Using an Ecosystem Services Framework to Restore Aquatic Habitat in Oregon
1:55pm-2:15pm	David Nowak Valuing Urban Forest Ecosystems: A Sneak Peak at i-Tree Landscape	Pengfei Liu Understanding a Field Auction for Ecosystem Services using the Experimental Economics Laboratory	Jessica Fox Reflections from a Decade of Investigating the Business Case for Ecosystem Services in the Electric Power Industry	Mike Mills Utilizing Ecosystem Services to Generate Support for Endangered Species Recovery
2:15pm-2:35pm	Erika Svendsen Understanding the Social Benefits of Urban Green Space: Community Stewardship and Resilience in NYC	Zhi Li The Potential To Use Subsidies As “Assurance Payments” To Attract Donations In Support Of Ecosystem Services	Gregory Biddinger Framework for Inclusion of Natural Capital into Corporate Land Management	Speaker TBD Bringing Ecosystem Services Analysis into Wetland Restoration in California
2:35pm-2:55pm	Tischa Muñoz-Erickson The Importance of Knowledge-Action Systems for Achieving Sustainable Solutions	Achyut Kafle Using an Experimental Auction Process to Identify Publicly Valued Ecosystem Restoration Projects	Sissel Waage Taking the ‘Pulse’ of the Leading Edge of Assessing Business Risk & Opportunity	Greg Reub Ecosystem Services, Habitat Banks and the Endangered Species Act
2:55pm-3:15pm	Susannah Lerman Beyond Benefits for Humans: How Cities can Support Ecosystem Services for Wildlife	Achyut Kafle Integrating Hydrology and Economics in Environmental Decision Making for Improved Water Quality	Discussion and Q & A	Discussion and Q & A
3:15pm-3:45pm	PM Break - Arlington Ballroom Salons 1-3			

Wednesday	Wednesday, December 10, 2014			
	Concurrent Sessions - 5			
3:45pm-5:30pm	Session 5A	Session 5B	Session 5C	Session 5D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	The Promise of Blue Carbon	Incorporating an Ecosystem Services Approach Into Natural Resource Restoration and Coastal Management	Payment for Ecosystem Services	Market-based Approaches for Recovery of Imperiled Species
Moderator	Ariana Sutton-Grier	Emma Roach	Emily Pindilli	Timothy Male
3:45pm-3:50pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
3:50pm-4:10pm	Diane Hoskins & Brian Needelman Applying the New Tidal Wetland and Seagrass Restoration Methodology	<u>Panel Session</u> Katie Arkema, Natural Capital Project, Stanford University Adam Davis, Ecosystem Investment Partners (EIP) Margaret Palmer, National Socio-Environmental Synthesis Center/ University of Maryland Pervaze Sheikh, Congressional Research Service David Yoskowitz, National Oceanic and Atmospheric Administration (NOAA)	Max Nielsen-Pincus The Influence of Sense of Place on the Willingness to Pay for Ecosystem Services	Larry Bright Emerging Policy Directions to Support Market-Based Approaches for Endangered Species and Habitat Conservation
4:10pm-4:30pm	Thomas Walker Blue Carbon Economics of Salt Marsh Restoration		Aaron Lien A Classification System for Payment for Ecosystem Services Programs	Garth Fuller Sage-grouse Case Study: Scaling Up to Address Landscape-Scale Threats to Species
4:30pm-4:50pm	Amber Moore & Ariana Sutton-Grier Incorporating Coastal Blue Carbon into the Implementation of U.S. Federal Policies		Kelli McCune Lessons Learned from an Ecosystem Services Pilot in CA Watershed	Sara O'Brien Linking Species-, Site-, and Landscape-Level Information in Sage-grouse Mitigation
4:50pm-5:10pm	Emily Pidgeon Blue Carbon: A Transformational Tool for Marine Management and Conservation Globally		Karen Bennett Payment for Forest Environmental Services: Lessons Learned from Vietnam	Sam Baraso Linking State and Federal Policies to Protect Prairies, Pollinators, and Other Critters in the Pacific NW
5:10pm-5:30pm	Discussion and Q & A		Paula Swedeen Overcoming Barriers to Implementing PES Programs for Private Forestlands in the Pacific Northwest, USA	Nicole Maness Butterfly-Safe Wine? Layering Incentives to Maximize Species Benefit on Private Lands
5:45pm-7:45pm	Poster Reception - Arlington Ballroom Salons 1-3			
	Wednesday Evening Town Hall Meeting			
7:30pm-8:35pm	Ecosystem Services in Federal Decision Making: Synthesis and Reflection			
Location	Grand Ballroom Salons F-G			
Organizer	Erica Goldman, COMPASS			
7:30pm-7:35pm	Introduction & Overview			
7:35pm-8:35pm	Town Hall Discussion			

Wednesday	Wednesday, December 10, 2014			
	Concurrent Sessions - 5			
3:45pm-5:30pm	Session 5E	Session 5F	Session 5G	Session 5H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Greening Cities for Ecosystem Services	Ecosystem Service Valuation Applications 1	Decision Making in Ecosystem Services 1	Improving Regulatory Water Quality Programs in the U.S. using Ecosystem Services
Moderator	Stephanie Pincetl	Luanne Lohr	Rebecca Moore	Heather Fisher & Jerry Diamond
3:45pm-3:50pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
3:50pm-4:10pm	Theodore Eisenman Rooting Ecosystem Services Theory in Urban Greening Practice	Hughes Simpson Texas Statewide Assessment of Forest Ecosystem Services	Simone Maynard How Appropriate is your Framework for Conducting Ecosystem Services Assessments?!	Doug Norton Recovery Potential Screening: A Comparative Watershed Assessment Tool
4:10pm-4:30pm	Tom Whitlow Does Green Infrastructure Affect Air Quality and Human Health	Cristina Carollo Valuation of Non-Market Services Provided by Gulf of Mexico Habitats	Marian Weber Interactions Between Public Preferences, Land Development, and Municipal Land Use Policies	Jerry Diamond Recasting Aquatic Designated Uses as Ecosystem Services in Clean Water Act Programs
4:30pm-4:50pm	Gina Lovasi A Public Health Perspective on Urban Trees and Green Spaces	Keri Bryan Economic Valuation of Flood Mitigation Services	Stephen Posner Conditions that Facilitate the Use of Ecosystem Service Knowledge in Decision-Making	Heather Fisher Approaching TMDLs as Long-Term Investments
4:50pm-5:10pm	William Sullivan Ecosystems and Human Health? A Skeptic's Assessment	Jérôme Dupras Using Valuation to Measure the Economic Impacts of Land-Use Changes on the Spanish Mediterranean Coast	Roger Keller Hopes and Fears Regarding the Implementation of the Ecosystem Services Concept in Switzerland	George Van Houtven Economic and Ecosystem Service Targeting of Nutrient Control Efforts to Meet the Goals of the Chesapeake Bay TMDL
5:10pm-5:30pm	Kelly Burks-Copes Performance Metrics for Ecosystem Goods and Services Generated in the Post-Sandy Environment	Karen Gaffney and Andrea Mackenzie Healthy Lands & Healthy Economies: Advancing the Application of Ecosystem Services in California	Discussion and Q & A	Discussion and Q & A
5:45pm-7:45pm	Poster Reception - Arlington Ballroom Salons 1-3			
	Wednesday Evening Town Hall Meeting			
7:30pm-8:35pm	Ecosystem Services in Federal Decision Making: Synthesis and Reflection			
Location	Grand Ballroom Salons F-G			
Organizer	Erica Goldman, COMPASS			
7:30pm-7:35pm	Introduction & Overview			
7:35pm-8:35pm	Town Hall Discussion			

Thursday	Thursday, December 11, 2014			
7:00am-5:00pm	Conference Registration Open - Skyview Lounge			
7:00am-8:00am	Morning Refreshments - Arlington Ballroom Salons 1-3			
8:00am-8:00pm	Ad Hoc Space Available - Jefferson, Madison, Jackson Rooms (Lobby Level)			
8:00am-9:45am	Plenary Session - Arlington Ballroom Salons 4-6			
	<p align="center">Plenary Session 4</p> <p align="center">International Perspectives on Incorporating Ecosystem Services into Decision Making: Science and Practice</p> <p align="center">Moderator: Joseph Nicolette, ENVIRON International Corporation</p> <p align="center">Panel Members</p> <p align="center">Roy Haines-Young, Professor and Director of the Centre for Environmental Management (CEM), The University of Nottingham</p> <p align="center">Simone Maynard, Director, Simone Maynard Consulting and Scholar, Australian National University</p> <p align="center">Jon Waterhouse, Founder, Network of Indigenous Knowledge</p>			
9:45am-10:15am	AM Break - Arlington Ballroom Salons -3			
	Concurrent Sessions - 6			
10:15am-12:00pm	Session 6A	Session 6B	Session 6C	Session 6D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Using Earth Observation for Ecosystem Service Assessments	Integrating Ecosystem Services into Federal Resource Management and Planning	Water Resources and Ecosystem Services	Natural Infrastructure for Improved Water Supplies
Moderator	Eva Maria Haas	Sally Collins	Al Cofrancesco	Carla Friedrich
10:15am-10:20am	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
10:20am-10:40am	Eva Maria Haas Nature Valued From Space	Janet Cushing Case Studies on Considering Ecosystem Services in US Army Corps Civil Works Projects	Julianna Corrales A Phosphorus Credit Trading Program in an Agricultural Watershed	Aaron Reuben The Linkage Between The Energy-Food-Water Nexus and Ecosystems
10:40am-11:00am	Eva Maria Haas Linking Ecosystem Services to Earth Observation Products	Edward Mailett Considering Ecosystem Services in Fish and Wildlife Refuge Operations	Spencer Phillips Economic Value of Implementing the Chesapeake Bay Clean Up Plan	Rob McDonald Quantifying The Relationship Between Natural Landscapes and Treatment Technology and Costs
11:00am-11:20am	John Finisdore Using Earth Observation for Ecosystem Service Assessments: Trial Studies	Tracy Rouleau Integrating Ecosystem Services Into Ocean and Coastal Management Objectives	Madeline Hall New Zealand Water Quality Trading Markets; Lessons from Lake Taupo	Todd Gartner Demonstrating The Business Case And Creating A Pipeline For Natural Infrastructure Investments
11:20am-11:40am	Stefanie Sieber & Daniel Juhn Panel discussion How Earth Observation Changed the Way We Assess Ecosystems - User Perspectives	Nikola Smith Ecosystem Services and U.S. Forest Service Land Management	Rebecca Logsdon Ecosystem Service Assessments for Water Resources Management: A Comparison of Two Models	Kevin Smith Deploying Private Sector Capital To Scale Natural Infrastructure Opportunities
11:40am-12:00pm		Robert Winthrop Considering Ecosystem Services at the Bureau of Land Management	Jingmei Yao On Quantifying the Value of Streams Purification Service	George Hawkins Providing Sustainable Water Services To Urban Centers
12:00pm-1:30pm	Boxed Lunch - Arlington Ballroom Salons 1-3			
	Thursday Lunch Town Hall Meetings			
12:15pm-1:20pm	Applying an Ecosystem Services Framework to Climate Change Adaptation		Strategy-Building for Ecosystem Services and Markets at USDA	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Frank Casey, US Geological Survey		Kathryn Zook, USDA - Office of Environmental Markets	
12:15pm-12:20pm	Introduction & Overview		Introduction & Overview	
12:20pm- 1:20pm	Town Hall Discussion		Town Hall Discussion	

Thursday	Thursday, December 11, 2014			
7:00am-5:00pm	Conference Registration Open - Skyview Lounge			
7:00am-8:00am	Morning Refreshments - Arlington Ballroom Salons 1-3			
8:00am-8:00pm	Ad Hoc Space Available - Jefferson, Madison, Jackson Rooms (Lobby Level)			
8:00am-9:45am	Plenary Session - Arlington Ballroom Salons 4-6			
	<p>Plenary Session 4</p> <p><i>International Perspectives on Incorporating Ecosystem Services into Decision Making: Science and Practice</i></p> <p>Moderator: Joseph Nicolette, ENVIRON International Corporation</p> <p>Panel Members</p> <p>Roy Haines-Young, Professor and Director of the Centre for Environmental Management (CEM), The University of Nottingham</p> <p>Simone Maynard, Director, Simone Maynard Consulting and Scholar, Australian National University</p> <p>Jon Waterhouse, Founder, Network of Indigenous Knowledge</p>			
9:45am-10:15am	AM Break - Arlington Ballroom Salons -3			
	Concurrent Sessions - 6			
10:15am-12:00pm	Session 6E	Session 6F	Session 6G	Session 6H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Mechanisms behind Health Linkages to Green Space	Ecosystem Service Valuation Applications 2	Decision Making in Ecosystem Services 2	Ecosystem Services Within System Frameworks
Moderator	Laura Jackson	Dixon Landers	David Blockstein	Marilyn ten Brink
10:15am-10:20am	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
10:20am-10:40am	William Sullivan Two Mechanisms Underlying the Health Benefits of Exposure to Green Spaces	Patrick Walsh Water Quality and Property Prices in the Chesapeake Bay	Elizabeth Murray An Assessment of Existing Tools for Addressing Ecosystem Goods and Services in the Context of Corps Planning	Marilyn ten Brink A Systems Approach to Exploring Sustainable Solutions
10:40am-11:00am	Beth Myers School Gardens + Children's Physical Activity	Rebecca Moore Preferences for Stream Health Improvements in Macon County, NC	Leslie Richardson Facilitating the Inclusion of Nonmarket Values in BLM Planning	Roelof Boumans Climate Change Effects on Ecosystem Services and Human Health
11:00am-11:20am	Laura Jackson Evidence for Near-Road Air Pollution Abatement by Tree Cover	Matt Weber Valuing Ecosystem Services of an Impacted Waterway in the Southwestern US	André Mascarenhas Participatory Selection of Ecosystem Services - Insights from Lisbon Metropolitan Area	Andrea Bassi Model Complementarity for Integrated Spatial Planning (ISP)
11:20am-11:40am	Kathleen Bush Connecting Green Space, Tree Cover, and Birth Outcomes in Durham-Chapel Hill, NC	Paola Bernazzani Valuing Ecosystem Services to Promote Low Emission Development Strategies in the Lower Mekong Region	Pieter Booth The ECOAIM™ Framework for Ecosystem Services Identification, Production Functions, and Modeling Flows	Ingrid Heilke Integration and Display of Ecosystem Services & Indicators using the Driver-Pressure-State Impact-Response Framework and Dynamic Web Application
11:40am-12:00pm	Jessica Daniel Linking Ecosystem Services and Human Health: The Eco-Health Relationship Browser	Christos Makriyannis Accounting for Outcome Uncertainty in Ecosystem Service Valuation	Rachel Neugarten Rapid Assessment of Ecosystem Services for Site Prioritization	Heera Lee A Quantitative Review of Relationships Between Ecosystem Services
12:00pm-1:30pm	Boxed Lunch - Arlington Ballroom Salons 1-3			
	Thursday Lunch Town Hall Meetings			
12:15pm-1:20pm	Applying an Ecosystem Services Framework to Climate Change Adaptation		Strategy-Building for Ecosystem Services and Markets at USDA	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Frank Casey, US Geological Survey		Kathryn Zook, USDA - Office of Environmental Markets	
12:15pm-12:20pm	Introduction & Overview		Introduction & Overview	
12:20pm- 1:20pm	Town Hall Discussion		Town Hall Discussion	

Thursday	Thursday, December 11, 2014			
	Concurrent Sessions - 7			
1:30pm-3:15pm	Session 7A	Session 7B	Session 7C	Session 7D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Recent Developments in Ecosystem Services Classification	US Forest Service: Integrating Ecosystem Services into Operations & Management	Taking Water Quality Trading to the Next Level: Unifying the Message and Scaling Up	Quantification of Ecosystem Services—Standard Metrics and Tools
Moderator	Charles Rhodes	Greg Arthaud	Todd Gartner	Christopher Hartley
1:30pm-1:35pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
1:35pm-1:55pm	Dixon Landers USEPA's Final Ecosystem Goods and Services (FEGS) Classification System	Kawa Ng Considering Ecosystem Services and Economic Sustainability in Forest Planning: Feasible Options	Bob Rose Clean Water Act Perspective: Water Quality Trading	Christopher Hartley Government's Role in Tool Development for Environmental Markets
1:55pm-2:15pm	Paramita Sinha National Ecosystem Services Classification System (NESCS)	Tim Foley The Marsh Project: An Ecosystem Services Approach to NEPA Project Planning	David Primozych Taking WQT to the Next Level: Unifying the Message and Scaling Up	Lydia Olander Identifying Modeling Gaps and Building Better Tools Through Partnerships
2:15pm-2:35pm	Roy Haines-Young The Common International Classification of Ecosystem Services (CICES)	Krista Gebert & Delilah Jaworski Early Adopter Forests and Ecosystem Services Under the 2012 Planning Rule	Carrie Sanneman Scaling Up Water Quality Trading Through a National Network Approach	Marlen Eve Methods and Tools for Quantifying Farm-Scale Greenhouse Gas Fluxes
2:35pm-2:55pm	Miroslav Honzák Ecosystem Services Classification and Ecosystem Accounting	Robert Deal The National Ecosystem Services Strategy Team	Chris Hornback A Utility Perspective on Water Quality Trading	Shaun McKinney Tools to Measure Water Quality: The Nutrient Tracking Tool
2:55pm-3:15pm	Discussion and Q & A	Karen Bennett Cool Soda-Using Ecosystem Services to Design and Value Land Management	Brooks Smith & Mark Kieser National Water Quality Trading Alliance Mission and Goals, Forward-Looking Opportunities and Obstacles to WQT	Emily Pindilli The Role of Quantification Tools in Biodiversity and Habitat Markets
3:15pm-3:45pm	PM Break - Arlington Ballroom Salons 1-3			

Thursday	Thursday, December 11, 2014			
	Concurrent Sessions - 7			
1:30pm-3:15pm	Session 7E	Session 7F	Session 7G	Session 7H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Valuing the Multiple Benefits of Healthy Urban Ecosystems	Balancing Perfect with Practical – Creating Meaningful Values and Quantities of Ecosystem Service Benefits	Business and Ecosystem Services	Biodiversity and Ecosystem Services: Partners or Competitors?
Moderator	Tracy Stanton	Lisa Wainger & Marisa Mazzotta	Carl Lucero	Sara Vickerman
1:30pm-1:35pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
1:35pm-1:55pm	Dale Blahna Cultivating Urban Ecosystem Services: An Overview of the Green Cities Research Alliance	Marisa Mazzotta Non-Monetary Benefits without Apology: The Economic Theory and Practice of Ecosystem Service Benefit Indicators	Jim South Integrating the Value of Nature into Business Decisions	Daniel Doak What Are the Different Purposes of Conservation, and Can We Reconcile Them?
1:55pm-2:15pm	Zachary Christin Quantifying Cultural and Social Ecosystem Services in the Urban Context	Lisa Wainger Designing Non-Monetary Benefit Indicators that Reflect Use and Preferences	France Guertin Establishing the Value of Nature: How "Voice of the Customer" informed the ESII Tool	Steve Zack Old World Vultures and Carcass Poisoning: An Ecosystem Service Unraveled
2:15pm-2:35pm	Kathleen Wolf Metro Nature Design for Public Health - Urban Ecosystem Services	Elena Besedin Improving Meta-Analysis as a Practical Tool for Valuing Ecosystem Services	Mary Klein New Nature of Business: How Companies Integrate Biodiversity	Jimmy Kagan Measuring Ecological Integrity Across Jurisdictions and Scales
2:35pm-2:55pm	Taylor Ricketts Show Me More than the Money: Ecosystem Services and Health	Robert Johnston Ensuring the Joint Ecological and Economic Salience of Ecosystem Service Values: An Application to Riparian Restoration	Sandra Werner Linking Ecosystem Services to Business Risk: An Oil and Gas Perspective	Panel Discussion Healy Hamilton, Gordon Toevs, and Ariana Sutton-Grier
2:55pm-3:15pm	Paul Sandifer Human Health Connections to Ecosystem Services, Nature, and Biodiversity	Austin Troy The Challenge of Applying the Ecosystem Services Framework across the Settlement Spectrum	Doug MacNair The USEPA Final Ecosystem Goods and Services Classification System (FEGS-CS): Implications for Corporations	Panel Discussion Melissa Kenney, John Schmerfeld, and Frank Casey
3:15pm-3:45pm	PM Break - Arlington Ballroom Salons 1-3			

Thursday	Thursday, December 11, 2014			
	Concurrent Sessions - 8			
3:45pm-5:30pm	Session 8A	Session 8B	Session 8C	Session 8D
Location	Grand Ballroom Salon A	Grand Ballroom Salon B	Grand Ballroom Salon C	Grand Ballroom Salon D-E
	Climate Change Impacts and Ecosystem Services	Modeling the Production of Ecosystem Services	Needs Challenges and Opportunities in Establishing Principles and Guidelines for Payment for Environmental Services	Building the Data Infrastructure to Support Nation-Wide Ecosystem Services Assessments
Moderator	Janet Cushing	Randy Bruins & Marc Russell	Alexandra Varga	Dean Urban
3:45pm-3:50pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
3:50pm-4:10pm	Paula Harrison Ecosystem Service Provision in a Changing Europe	Marc Russell The Importance of Context in Development and Application of Ecosystem Services Production Functions	Shahid Naeem Conflicts, Compatibilities, and Coherencies Between Natural Science and Payment for Ecosystem Services	Dean Urban Data and Infrastructure Needs for Ecosystem Services Assessment
4:10pm-4:30pm	David Mushet Land-Use and Climate Change Impacts on Ecosystem Services in the Northern Great Plains, USA	Lisa Wainger A Framework for Integrating Ecosystem Services in Corps Planning	Charles Perrings IPBES and Payments for Ecosystem Services Impacted by Biodiversity Change	Anne Neale EPA's EnviroAtlas as a Resource for Nationwide Ecosystem Services Assessments
4:30pm-4:50pm	Mohammed Alamgir Ecosystem Services based Adaptation to Climate Change: Why and How?	Randy Bruins Introducing the Ecosystem Services Production Function Library	Jane Carter Ingram Ecological Knowledge and Tools for Enhancing Ecosystem Service Incentives and Markets	Jimmy Kagan Building Midscale Datasets to Support Ecosystem Services Assessments
4:50pm-5:10pm	William Kepner Evaluating Biodiversity Response to Forecasted Land-Use Change in the San Pedro River Basin	Theodore DeWitt Assessing the Transferability of Ecosystem Service Production Estimates and Functions	Tundi Agardy The Scientific Foundation for Marine PES	Robert Johnston Enhancing the Geospatial Validity of Meta-Analysis to Support Ecosystem Service Benefit Transfer
5:10pm-5:30pm	Bruce Byers Assessing the Relationship of Climate Change, Forests, and Ecohydrology in Honduras	Jonathan Kochmer Linking Ecosystem Services Benefit Transfer Databases and Ecosystem Services Production Function Libraries	Gabriel Thoumi Needs, Challenges and Opportunities for Payment for Environmental Services (PES) to Meet Corporate Demand	Lynn Maguire Scale and Context Dependence in Multicriteria Analyses of Ecosystem Services
	Thursday Evening Town Hall Meetings			
5:45pm-6:50pm	Leveraging Partnerships to Enhance Preparedness and Resilience for Climate Change and Ecosystem Services		What is Ecosystem Accounting Anyway? Could it Be a Game Changer for Sustainable Development?	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Ilya Fischhoff, US Global Change Research Program		Rosimeiry Portela, Conservation International and Glenn-Marie Lange, World Bank	
5:45pm-5:50pm	Introduction & Overview		Introduction & Overview	
5:50pm-6:50pm	Town Hall Discussion		Town Hall Discussion	

Thursday	Thursday, December 11, 2014			
	Concurrent Sessions - 8			
3:45pm-5:30pm	Session 8E	Session 8F	Session 8G	Session 8H
Location	Grand Ballroom Salon F-G	Grand Ballroom Salon H	Grand Ballroom Salon J	Grand Ballroom Salon K
	Urban Environments and Ecosystem Services	Is the Ecosystem Services Quantification Framework Appropriate for Natural Resources Damages Assessment?	Understanding Uncertainty: Lessons from the Real World	Quantifying Natural Infrastructure Benefits for Decision-Making
Moderator	Paul Young	Pieter Booth & Joseph Nicolette	Paul Manson	Tracy Stanton
3:45pm-3:50pm	Introduction & Overview	Introduction & Overview	Introduction & Overview	Introduction & Overview
3:50pm-4:10pm	Jennifer Richkus Key lessons Learned from Practitioners on Ecosystem Services at the Urban Scale	Mark Rockel Comparing Classifications of Ecosystem Services under NRDA, The Millennium Assessment, and the USEPA	Duncan Gromko Promoting Biodiversity-Positive Loans Given Data Uncertainty	David Batker How Ecosystem Service Valuation and Quantification Tools Can Support Municipal Drinking Water Source Protection
4:10pm-4:30pm	Valerie Dupont The Integration of Biodiversity Values in Urban Development Projects in New South Wales	Pieter Booth Challenges in Applying Ecosystem Services Evaluation to Natural Resource Damage Cases: Ecological Considerations	France Guertin Aligning Acceptable Amounts of Uncertainty With Specific Types of Decisions	Genevieve Bennett Quantifying the Benefits of Watershed Investments: Findings from the 'State of Watershed Investments 2014'
4:30pm-4:50pm	Wei Tongyang Using Choice-Based Conjoint Analysis to Estimate Different Groups' Preferences for Water Environmental Changes	Theodore Tomasi Ecosystem Services and Human Use and Nonuse Losses in Natural Resource Damage Assessment	Kevin Halsey Designing and Developing Tools that Track and Reduce Uncertainty	Todd Gartner Demonstrating the Business Case and Creating a Pipeline for Natural Infrastructure Investments
4:50pm-5:10pm	Kiichiro Hayashi Assessment of Urban Forest Ecosystem Services by People's Subjective Value in Japan	Amanda Halter Legal Implications of Ecosystem Service Valuation Approaches in Natural Resource Damages Assessment And Other Regulatory Regimes	Mark Rounsevell Quantifying the Uncertainties Within a Cross-Sectoral, Integrated Assessment of the Impact of Climate Change on Ecosystem Services in Europe	Mark Kieser Evaluating Green Infrastructure for Public and Private Investment: Lessons from Lima, Peru
5:10pm-5:30pm	Nora Wahlund Advancing Ecosystem Service Inclusion in Benefit-Cost Analysis at the Local Level: FEMA Policy Impacts in Southern Wisconsin	Discussion and Q & A	Discussion and Q & A	Timm Kroeger Estimating the 'Return on Investment' in Natural Infrastructure: Rio Camboriú Watershed, Santa Catarina State, Brazil
	Thursday Evening Town Hall Meetings			
5:45pm-6:50pm	Leveraging Partnerships to Enhance Preparedness and Resilience for Climate Change and Ecosystem Services		What is Ecosystem Accounting Anyway? Could it Be a Game Changer for Sustainable Development?	
Location	Grand Ballroom Salons D-E		Grand Ballroom Salons F-G	
Organizer	Ilya Fischhoff, US Global Change Research Program		Rosimeiry Portela, Conservation International and Glenn-Marie Lange, World Bank	
5:45pm-5:50pm	Introduction & Overview		Introduction & Overview	
5:50pm-6:50pm	Town Hall Discussion		Town Hall Discussion	

Program Agenda continues on the following page.

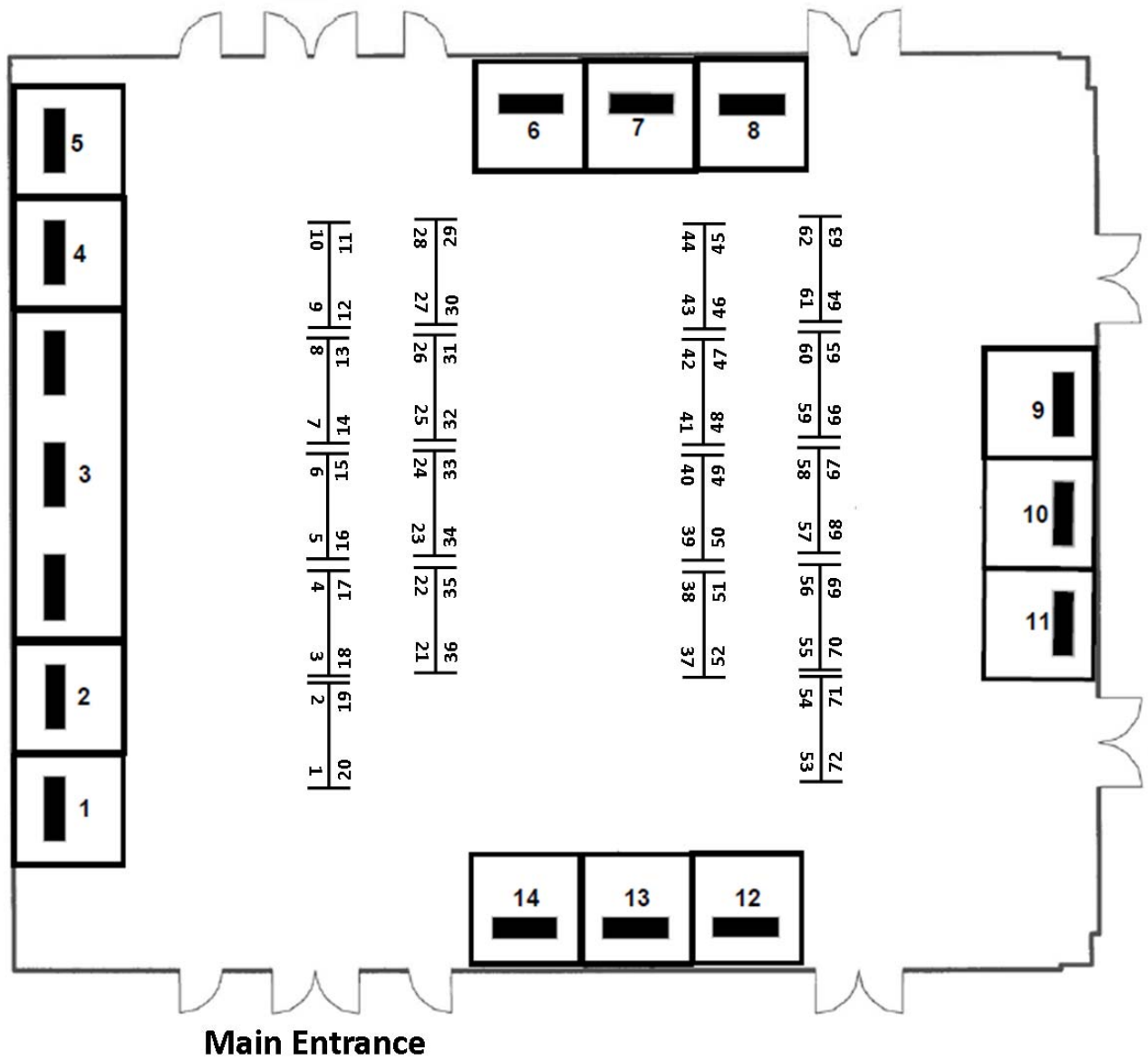
Friday	Friday, December 12, 2014
7:00am-12:00pm	Conference Registration Open - <i>Skyview Lounge</i>
7:00am-8:00am	Morning Refreshments & Poster Removal - Arlington Ballroom Salons 1-3
8:00am-12:00pm	Ad Hoc Space Available - <i>Jefferson, Madison, Jackson Rooms (Lobby Level)</i>
8:00am-9:45am	Plenary Session - Arlington Ballroom Salons 4-6
	<p><u>Plenary Session 5</u> <i>Climate Change and Ecosystem Services</i> Moderator: David Yoskowitz, Chief Economist, NOAA</p> <p><u>Panel Members</u> Virginia Burkett, Chief Scientist for Climate and Land Use Change, U.S. Geological Survey Paula Harrison, Senior Research Fellow, Environmental Change Institute, University of Oxford Bill Hohenstein, Director, U.S. Department of Agriculture Climate Change Program Office Daniel R. Wildcat, Professor, Haskell Indian Nations University and Convener, Indigenous Peoples' Climate Change Working Group</p>
9:45am-10:15am	AM Break & Exhibitor Strike - Arlington Ballroom Salons 1-3
10:15am-12:00pm	Closing Plenary Session - Arlington Ballroom Salons 4-6
	<p><u>Plenary Session 6</u> <i>ACES 2014 Synthesis: Future Directions for Ecosystem Services Research and Practice</i> Moderator: Anne Kinsinger, Associate Director for Ecosystems, U.S. Geological Survey</p> <p><u>Panel Members</u> Bobby Cochran, Executive Director, Willamette Partnership Michael Jenkins, President and CEO, Forest Trends Janet Ranganathan, Vice President for Science and Research, World Resources Institute Paul Sandifer, Chief Science Advisor, NOAA's National Ocean Service</p>
	Conference Concludes
12:00pm-2:00pm	Last Call - Poster, Display, and Exhibit Removal

Topical Poster Locator

Presentation Theme	Poster No.
Adaptation and Climate Change	37 & 38
Adaptive Decision Making in the Face of Uncertainty	10
Economic and Non-Economic Valuation	12 - 23
Ecosystem Service Identification Production and Flows	48 - 72
Ecosystem Services and Human Health	46 & 47
Institutions, Markets, Incentives, and Legal Frameworks	40 - 44
Public Policy, Science, and Practice	1 - 9
Public-Private Partnerships and Inter-Agency Coordination	45
Quantifying the Effects of Ecosystem Restoration	24
Sustainability and Resilience	25 - 28
Urban Ecosystems and Services	32 - 36
Using Ecosystem Services for Energy and Water Resource Planning	29 - 31
Voluntary Conservation Program Initiatives	39
What's Next? A Decade After Millennium Report	11

Poster & Exhibit Room Floor Plan

Arlington Ballroom Salons 1-3



Poster Directory

Poster

- 1 **THE BENEFITS OF RESTORATION IN URBANIZING WATERSHEDS: DEVELOPING VALUE INDICATORS AND UNDERSTANDING SOCIAL BARRIERS AND OPPORTUNITIES -- *Marisa Mazzotta*, US EPA**
- 2 **MAINSTREAMING ECOSYSTEM SERVICES AND NATURAL CAPITAL -- *Marion Potschin*, Centre for Environmental Management**
- 3 **EMPOWERING EUROPEAN COMMUNITIES TO IMPROVE NATURAL RESOURCE MANAGEMENT FOR HUMAN WELL-BEING: THE OPPLA WEB PORTAL & COMMUNITIES OF PRACTICE -- *Mark Rounsevell*, University of Edinburgh**
- 4 **WATER QUALITY TRADING PROGRAM REQUIREMENTS AND MONITORING -- *Julia Bond*, The Freshwater Trust**
- 5 **INCORPORATING ECOSYSTEM SERVICES INTO NEPA SOCIOECONOMIC ANALYSES -- *Barbara Wyse*, Highland Economics**
- 6 **BALANCING BUSINESS NEEDS WITH MEASURES OF ECOLOGICAL SERVICES -- *Damian Preziosi*, Integral Consulting Inc.**
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Poster Session and Reception – Wednesday, December 10, 2014
5:45pm-7:45pm (Arlington Ballroom Salons 1-3)

Thank You to Our Conference Exhibitors

<u>Booth</u>	<u>Organization</u>
1	U.S. Environmental Protection Agency
2	U.S. Geological Survey
3	Global Ecological Land Units Display - USGS, Esri, GEO & AAG
4	Esri
5	Defenders of Wildlife
6	Virginia Tech Center for Leadership in Global Sustainability (VT CLiGS)
7	Council on Food, Agricultural and Resource Economics (C-FARE)
8	The Freshwater Trust
9	Cascadia Ecosystem Services Partnership
10	USDA - Office of Environmental Markets
11	U.S. Forest Service
12	Electric Power Research Institute (EPRI)
13	Environmental Incentives, LLC
14	ENVIRON International Corporation

Graduate Student Fellowship

Congratulations to the ACES 2014 Student Fellows!



Elizabeth Gomez, Stony Brook University, NY, USA

ACES 2014 Presentation:

A Dynamic Ecological and Economic Model Linking Oyster Reef Bioenergetics to Final Ecosystem Services

Session 2H, Tuesday, December 9th, 4:10pm-4:30pm

Elizabeth Gomez is from South Florida, but has spent the past 7 years in the Mid-Atlantic and New England area. During her undergraduate career Elizabeth participated in multiple undergraduate research internships studying marine ecology and understanding anthropogenic impacts on coastal ecology. She graduated in

May 2011 from Brown University with a B.S. in Biology, and spent two years in an environmental consulting firm working on NEPA compliance projects with federal agencies such as NOAA, NPS, and FERC. Currently, she is pursuing a M.S. in Marine Science from the School of Marine and Atmospheric Sciences at Stony Brook University, where she works in the Marine Community Ecology Laboratory under Dr. Bradley Peterson. Her master thesis focuses on developing a multi-species bioenergetics model to track energy flows in oyster reefs and predict ecosystem-level changes resulting from changes in the system and population structure. In addition, Elizabeth is interested in the application of ecological monitoring data and ecological models for the measuring and tracking of potential ecosystem services, as well as predicting how changes in the environment can affect the provision of potential ecosystem services.



Madeline Hall, University of Otago, New Zealand

ACES 2014 Presentation:

New Zealand Water Quality Trading Markets; Lessons from Lake Taupo

Session 6C, Thursday, December 11th, 11:00am-11:20am

Madeline Hall is pursuing her MA in Environmental Sociology at the University of Otago through the interdisciplinary Centre for Sustainability. As a 2014 US Fulbright Graduate Student, her research focuses on the use of market-based mechanisms to address common-pool resource problems in agricultural settings.

Madeline's research aims to understand how farmers' participation in a water-quality-trading program influences their environmental beliefs, notions of success, and decision to take part in secondary cap-and-trade programs. Originally from Washington, D.C., Madeline has varied international research experience with Payments for Ecosystem Services programs that target Indigenous Peoples. After graduating as a 2012 Sondheim Public Affairs Scholar from the University of Maryland Baltimore County with a degree in Environmental Studies, Madeline represented Indigenous Peoples groups at the UNFCCC negotiations in Doha to ensure the preservation and inclusion of their biocultural heritage. Overall, her interests focus on market-based-mechanisms influence on existing asymmetries of power, stakeholders' sense of place, and the expression of values in environmental management.



Heidi Huber-Stearns, Colorado State University, CO, USA

ACES 2014 Presentation:

Investments in Watershed Services and Sustainable Institutions

Session 3D, Wednesday, December 10th, 10:40am-11:00am

Heidi Huber-Stearns is a doctoral candidate in the Department of Forest and Rangeland Stewardship at Colorado State University, focusing on environmental governance and natural resource policy. Her research focuses on understanding the design and performance of payment for conservation programs in the western US. Heidi's work connects academic institutional analysis with practical policy and science, especially through collaborations with Forest Trends' Ecosystem Marketplace and World Resources Institute. Her research has taken her from addressing landowner conservation concerns in Southern Oregon, to assessing organizational capacity for a Payments for Ecosystem Services program in western Panama, to working with multiple transdisciplinary environmental initiative teams in the US. Heidi has worked with various stakeholder groups to design conservation investment approaches, including the Colorado Conservation Exchange. Currently, Heidi is an Instructor for Colorado State University's Master of Natural Resource Stewardship, and serves the community as a board member of the City of Fort Collins Water Advisory Board. She has also developed her own outreach efforts as a Sustainability Leadership Fellow at the School of Global Environmental Sustainability.



Achyut Kafle, University of Rhode Island, Kingston, RI, USA

ACES 2014 Presentation:

Using an Experimental Auction Process to Identify Publicly Valued Ecosystem Restoration Projects

Session 4F, Wednesday, December 10th, 2:35pm-2:55pm

Integrating Hydrology and Economics in Environmental Decision Making for Improved Water Quality

(Presenting on behalf of co-author, Emi Uchida)

Session 4F, Wednesday, December 10th, 2:55pm-3:15pm

Achyut Kafle is a doctoral candidate in Environmental and Natural Resource Economics (ENRE) at the University of Rhode Island, Kingston, RI, USA. He is an environmental economist who applies insights from economic theory to the problems of environmental and natural resources, including watershed management, water quality, conservation of undeveloped forest and farmland, ecosystem restoration and related applications involving ecosystem services. His primary research interests include assessing non-market values of environmental goods and ecosystem services and incorporating such values into decision support tools for better environmental decision-making. He is also interested in bringing a more interdisciplinary approach of integrating natural resource modeling (e.g., ecological production functions) with valuation studies to generate policy relevant information on how changes in natural ecosystem functions translate to ecosystem benefits or values for human well-being.



Roger Keller, University of Zurich, Switzerland

ACES 2014 Presentation:

Hopes and Fears Regarding the Implementation of the Ecosystem Services Concept in Switzerland

Session 5G, Wednesday, December 10th, 4:50pm-5:10pm

Roger Keller is a PhD candidate in Geography at the University of Zurich. After his MSc in Human Geography he began to work as a Scientific Officer for the Swiss Federal Office for the Environment in the Landscape and Biodiversity Division where he started to engage with the Ecosystem Services (ES) concept. His current research focuses on the implementation of the ES concept into policy and practice in Switzerland. Roger is also interested in the links between ecosystem services and human well-being - an area which often seems to be underrepresented in current ES research projects. The same applies for the category of so-called "cultural ES" like aesthetics, identification with a landscape etc.: Although cultural ES play a key role in raising awareness of the value of nature/landscape to the wider public, they do not seem to receive as much attention from the ES research community as they deserve. Roger analyzes the ES approach from a social science perspective and hopes that in the future more social scientists will engage with the ES concept in order to better understand human-nature interactions.



Jingmei Yao, Université Paul Sabatier, France

ACES 2014 Presentation:

On Quantifying the Value of Streams Purification Service

Session 6C, Thursday, December 11th, 11:40am-12:00pm

Jingmei Yao is an aquatic ecologist who works on quantifying the self-purification capacity of running water as an ecosystem service. She is in the final year of her PhD in Laboratoire d'écologie fonctionnelle et Environnement (ECOLAB) at Toulouse in France in the team BIOREF (Biodiversité, Réseaux trophiques et Flux dans les écosystèmes aquatiques). She previously received an MSc in Water and Wastewater Treatment in Science and Engineering at College of Urban Construction and Environmental Engineering, Chongqing University, China. During her graduate studies, she has carried out various projects including wastewater treatment and lake/river water body remediation projects in Chong Qing, China. China Scholarship Council (CSC) offered her fellowship for 3 years in France. At ECOLAB her research is focused on biodiversity-ecosystem function relationship (BEF), particularly invertebrates' biodiversity–water purification function relationship, including macro- and meio- fauna and purification function in surface water and groundwater. She has been processing of data from the STREAMS project (11 European river) and participated participation in ATTENAGUA Project (4 meandering rivers in the SUDOE zone including France, Spain and Portugal), Functional Indicators Project (9 natural acid streams in France), and she is also active in exchange ideas about ecosystem service with other economists and ecologists through workshops (eg. "Thematic School on Ecosystem Services CNRS"). She is now expected to get further in ecosystem services value estimation with a strong inter-disciplinary collaboration from economists.

NESP Guidebook

Available Online

Federal Resource Management and Ecosystem Services Guidebook

www.nespguidebook.com

This new guidebook, debuting at the A Community on Ecosystem Services Conference, helps federal resource managers credibly incorporate ecosystem services into their planning and management efforts, find tools and methods to account for these services, and prioritize actions that sustain and enhance the benefits provided by public lands, waters, and other natural resources.



Section 1: Introduction

Discover the advantages and challenges of implementing an ecosystem services approach to planning and management.



Section 2: Ecosystem Services and Federal Agencies

Learn how federal agencies are exploring and applying ecosystem services in their planning and management processes.



Section 3: Assessment Framework

See how ecological and social science methods can be used to incorporate ecosystem services assessment into decision making.



Section 4: Explorations and Applications

Explore on-the-ground examples of federal agencies using an ecosystem services approach to decision making.

The National Ecosystem Partnership housed at
Nicholas Institute of Environmental Policy Solutions, Duke University
P.O. Box 90335, Durham, NC 27708
919.613.8709 • nicholasinstitute@duke.edu • www.nicholasinstitute.duke.edu



Celebrate the Launch of
The Federal Resource Management and Ecosystem Services Guidebook
with its creators at the
A Community on Ecosystem Services Conference

Methods for Incorporating Ecosystem Services into Planning and Decision Making

A pre-conference workshop delving into some of the methods for integrating ecosystem services considerations into planning processes.

8 a.m.-4:30 p.m.; Grand Ballroom, Salon A

Dec. 8

Decision Making

Dec. 10

Guidebook Launch

Federal Resource Management and Ecosystem Services

Guidebook creators will give attendees a first look at this new online resource, discussing the impetus for its creation, what it includes, and how it will help federal resource managers credibly incorporate ecosystem services into planning and management efforts.

7:20 a.m.-7:50 a.m.; Grand Ballroom, Salon F-G

Dec. 11

and Planning

Integrating Ecosystem Services into Federal Resource Management

A special session reviewing how agencies are integrating ecosystem services into planning and management activities. Hear from agency staff about explorations and applications featured in the guidebook.

10:15 a.m.-12 p.m.; Grand Ballroom, Salon B

Dec. 11

Assessments

Building the Data Infrastructure to Support Nationwide
A special session discussing data and modeling infrastructure needed to successfully conduct ecosystem services assessments.

3:45 p.m.-5:30 p.m.; Grand Ballroom, Salon D - E

Not Registered?

Watch guidebook creators discussing an ecosystem services approach to planning and management.

View the
introductory
video

www.nespguidebook.com

The National Ecosystem Partnership housed at
Nicholas Institute of Environmental Policy Solutions, Duke University
P.O. Box 90335, Durham, NC 27708
919.613.8709 • nicholasinstitute@duke.edu • www.nicholasinstitute.duke.edu



Area Information

NEARBY CITIES

- Washington (3.2mi/5.15km)
- Baltimore (38.2mi/61.48km)
- Alexandria (3.1mi/4.99km)
- Falls Church (6.8mi/10.94km)
- Mclean (9.0mi/14.48km)

AREA ATTRACTIONS

Smithsonian Institution: The world's largest museum complex and research organization composed of 19 museums, 9 research centers, and the National Zoo.

- African American History and Culture Museum
- African Art Museum
- Air and Space Museum
- Air and Space Museum Udvar-Hazy Center
- American Art Museum
- American History Museum
- American Indian Museum
- Anacostia Community Museum
- Arts and Industries Building
- Freer Gallery of Art
- Hirshhorn Museum and Sculpture Garden
- National Zoo
- Natural History Museum
- Portrait Gallery
- Postal Museum
- Renwick Gallery
- Sackler Gallery
- Smithsonian Institution Building, The Castle

National Mall & Memorial Parks: In addition to the famous sights listed below, this park is home to numerous circles, fountains and green spaces.

- African American Civil War Memorial
- Constitution Gardens
- District of Columbia War Memorial
- East Potomac Park
- Ford's Theatre National Historic Site and the House Where Lincoln Died
- Franklin Delano Roosevelt Memorial
- Hispanic Heroes on Virginia Avenue, NW: José Gervasio Artigas Park, Simón Bolívar Park, José de San Martín Park, Bernardo de Gálvez Park, and Benito Juárez Park.
- Japanese American Memorial to Patriotism During World War II
- Korean War Veterans Memorial
- Lincoln Memorial
- Martin Luther King, Jr. Memorial
- National Law Enforcement Officers Memorial
- Old Post Office Tower
- Pennsylvania Avenue National Historic Site and Park
- Thomas Jefferson Memorial
- Vietnam Veterans Memorial
- Washington Monument
- West Potomac Park
- World War II Memorial

Pentagon 9/11 Memorial: This outdoor memorial honors the 184 people at the Pentagon and on American Airlines Flight 77 who lost their lives during the September 11th attacks.

Pentagon City Mall: More than 170 stores and restaurants, including Nordstrom, Kate Spade, and Apple, fill this upscale shopping center. Adjacent is Pentagon Row, an outdoor shopping and dining destination that also hosts seasonal concerts and an ice rink.

Arlington National Cemetery & Iwo Jima Memorial: Established during the Civil War, this 624-acre military cemetery is where John F. Kennedy was laid to rest and marked 150 years in May 2014. The Iwo Jima Memorial features statues of the six servicemen who raised the second US flag on Mount Suribachi during World War II's Battle of Iwo Jima.

NEARBY RESTAURANTS

Neramitra (0.5 miles from hotel)

Phone: 1-703-413-8886

Neramitra serves up Thai cuisine with your selection of vegetable, meat or seafood with most entrees.

Open for lunch and dinner

Dress code: Casual

Legal Sea Foods (0.9 miles from hotel)

Phone: 1-703-415-1200

Legal Sea Foods serves only the freshest oysters, crab, salmon and more.

Open for lunch and dinner

Dress code: Casual

Hamburger Hamlet (0.4 miles from hotel)

The Hamburger Hamlet has been known for simply marvelous food, casual comfort, and superb service since 1950.

Phone: 1-703-413-0422

Open for lunch and dinner

Dress code: Casual

The Portofino Restaurant (0.4 miles from hotel)

The Portofino Restaurant is a family owned and operated Italian restaurant established in 1970 offering the finest in cuisine and atmosphere.

Phone: 1-703-979-8200

Open for lunch and dinner

Dress code: Dress Jeans

Ruth's Chris Steak House (0.5 miles from hotel)

Ruth's Chris Steak House serves seafood and famous steaks in a comfortable, warm atmosphere.

Phone: 1-703-979-7275

Open for lunch and dinner

Dress code: Shirt/Slacks Req.

McCormick & Schmick's Seafood & Steaks (0.4 miles from hotel)

They serve a variety of fresh seafood flown in daily from both U.S. and international waters, available from menus that change daily. Prepared using fresh ingredients, your food is served in a timeless and traditional presentation.

Phone: 1-703-413-6400

Open for lunch and dinner

Dress code: Dress Jeans

Jaleo (0.6 miles from hotel)

As the first critically-acclaimed tapas restaurant in the country, Jaleo brings alive the spirit and flavors of Spain with a menu by renowned chef, José Andrés.

Phone: 1-703-413-8181

Open for lunch and dinner

Dress code: Casual

Lebanese Taverna (0.8 miles from hotel)

Lebanese Taverna offers traditional Middle Eastern dishes such as stuffed meatballs, rotisserie meat, flat breads and more.

Phone: 1-703-415-8681

Open for lunch and dinner

Dress code: Casual

Morton's The Steakhouse (0.4 miles from hotel)

Morton's is a famous Steakhouse known for having the highest quality grade beef in terms of tenderness, juiciness and flavor.

Phone: 1-703-418-1444

Open for dinner

Dress code: Shirt/Slacks Req.

Travel Information

Parking: The Marriott Crystal Gateway is pleased to offer complimentary self-parking to both overnight guests and commuters from the local area or those staying at other hotels. Please notify the parking attendant that you are with ACES 2014 to receive this benefit.

Airport Transportation

- **Free Host Hotel Shuttle:** The Marriott Crystal Gateway offers complimentary shuttle service to nearby Ronald Reagan Washington National Airport (DCA) for its guests. To take advantage of this service, call 703-417-8000 to schedule your shuttle.
- **SuperShuttle & ExecuCar:** SuperShuttle is offering ACES 2014 participants discounted shuttle service from and to Ronald Reagan Washington National Airport (DCA), Washington DC Dulles Airport (IAD), and Baltimore/Washington International Thurgood Marshall Airport (BWI). To book your transportation needs, visit www.supershuttle.com and enter discount code RBHNL.

Taxi Cabs: Travel cost to and from Washington, D.C. is approximately \$12 including tip each way. The Hotel Concierge will assist you in arranging pick-up. Taxi pick-up can also be found on the front drive.

Metro: Washington, DC offers convenient transportation via the Metro Rail and Bus system. The Crystal Gateway Marriott Hotel has access to the Metro available through the hotel lobby. For more information on Metro fares and service, visit www.wmata.com.

Arlington & DC Area: Should you have questions about the area, please refer to the Area Information section in this program book, speak with the Hotel Concierge desk on the Lobby Level of the Capitol Tower, or visit www.washington.org.

Rental Car Discount: Avis is offering ACES 2014 participants discounted rental car rates over the conference dates. To take advantage of these reduced rates, make your Avis reservation using AVIS Worldwide Discount (AWD) Reference #D016892 at www.avis.com.

Additional Information

Internet Access: In addition to the Internet Café in the Skyview Lounge, complimentary wireless internet is available in the hotel public and lounge areas. Wi-Fi is not complimentary in the meeting space. For in-room access, internet is available for a reduced fee of \$6.95 per night (regularly \$12.95).

Networking: A Welcome Happy Hour will be held Monday evening in the Marriott Crystal Gateway Lounge/Atrium on the Lobby Level of the Capitol Tower. A Poster Reception will be held Wednesday evening in Arlington Ballroom Salons 1-3 on Floor 1 of the Arlington Tower. We invite you to attend these events to network with your fellow participants.

Ad Hoc Meeting Space: Impromptu meeting space is available for sign-up on a first-come, first-served basis via sign-up sheets on the conference message board in the Skyview Lounge. Please note that no AV equipment will be provided. Please also note that ad hoc meeting spaces are on the Lobby Level of the Capitol Tower.

Hotel Check-in: 4:00pm **Hotel Check-out:** 12:00pm

Name Badge: Your name badge will serve as your pass while attending ACES 2014, so please be sure to wear it while attending all conference functions. If arriving Sunday, you will want to pick up your name badge and materials Sunday evening to avoid the Monday and Tuesday morning rushes. The Conference Registration Desk will open at 5:00pm Sunday, December 7th in the Skyview Lounge on Floor 1. Please be sure to register all guests and pay the applicable registration fee. Guests must also wear their name badge for entry into the Monday Networking Social and the Wednesday Poster Reception.

Special Meal Requests: When you arrive at the ACES registration area to pick up your materials and name badge, you will receive tickets indicating any special meal requirements. Please present these cards to hotel staff members at lunchtime on Tuesday, Wednesday, and Thursday so they can easily identify which boxed lunch you are to receive. For refreshment breaks and the Poster Reception, the various food and beverage items will be arranged in a self-serve set-up so you can choose what coincides with your specific dietary requirements. If you are not sure what is in a specific food item, please ask the hotel staff for clarification. If you have any questions about the handling of special meal requirements, please feel free to ask any of our conference staff members onsite. We will be happy to assist you as needed.

Lost & Found: When an article is lost, please first check the conference registration area. If the lost article(s) cannot be found, check with the Marriott Crystal Gateway front desk on the Lobby Level of the Capitol Tower.