

NCER 2018 Key Themes and Subtopics

1. Linking science to decision-making

- a. Science and decision-making collaboration
- b. Science governance
- c. Promoting actionable science
- d. Options for formal decision making processes (e.g., Structured Decision Making)
- e. Use of benefit-multiple impact analysis as a decision-making tool
- f. Valuation of restoration socio-economic benefits

2. Making large-scale ecosystem restoration program implementation sustainable

- a. Stable funding mechanisms
- b. Long-term funding requirements and their value for planning, implementation, monitoring, and adaptive management
- c. Creating ecosystem restoration markets to attract private enterprise interest
- d. Incentives for local landowners and stakeholders to partner with governments on ecosystem restoration efforts
- e. Improving implementation accountability
- f. More sophisticated approaches to communications
- g. Engagement of non-traditional conservation partners

3. Adapting to emerging ecosystem-scale stressors (e.g., climate change, invasive species)

- a. Planning for, measuring, and achieving ecosystem resilience
- b. Building flexibility and responsiveness into planning
- c. Learning from industry and/or non-traditional restoration businesses and programs
- d. Developing proactive approaches to address emerging issues
- e. Defining and understanding principles of adaptive management and adaptation planning
- f. Implementation of [climate-smart adaptation](#)

4. Science tools, synthesis, and application in support of restoration implementation

- a. Restoration vision and performance measures
- b. Isolated project contributions to landscape-scale goals
- c. Prioritizing restoration projects and funding in support of restoration implementation
- d. Tools to support restoration implementation accountability and assessment
- e. Measuring restoration progress made towards restoration end goals
- f. Ecosystem monitoring and data management – essential tools for ecosystem restoration
- g. Development and tracking of landscape-scale indicators of ecological condition

5. Improving restoration communication, stakeholder engagement, and conflict resolution capacity throughout all levels of government

- a. Communicating the need for and importance of restoration
- b. Science communication to decision-makers, stakeholders, and public
- c. Communication, stakeholder engagement, and conflict resolution capacity building and training
- d. Valuing ecosystem benefits – ecosystem services including cultural and socio-economic values, predicting restoration benefits
- e. Showcasing the value of ecosystem restoration to non-technical audiences

6. Building capacity for large-scale restoration planning with implementation at multiple scales and sectors

- a. Defining restoration problems, opportunities, and realistic goals and objectives

- b. Regulatory frameworks for scalable solutions, actions by multiple sectors
- c. Developing and leveraging collaborative restoration partnerships
- d. Using “small-scale” projects and pilot projects to inform large-scale restoration
- e. Forums for intergovernmental and non-governmental dialogue to support large-scale restoration planning

7. The state of the science in ecosystem restoration

- a. Nutrient reduction case studies for freshwater and marine environments
- b. Invasive species impacts
- c. Natural abiotic and biotic processes versus acceptance of novel ecosystems
- d. The role of urban and suburban infrastructure greening
- e. Water quality and water quantity issues in ecosystem restoration
- f. Successes and failures of the adaptive management model in ecosystem restoration
- g. Transferring lessons learned across ecosystems and/or regions
- h. Watershed based restoration programs – the trend of the future?
- i. The power of models – Considerations of the balance between detail and uncertainty in the predictions of ecosystem restoration program outcomes
- j. Defining “large-scale” ecosystem restoration – how many small projects make one big program?

8. Ecosystem restoration as tool for enhancing resiliency

- a. Use of restored ecosystems as natural infrastructure to reduce risk from sea level rise
- b. The application of green infrastructure to enhance resiliency in urban environments
- c. Linkages between ecosystem restoration and coastal resiliency
- d. Linkages between ecosystem restoration and global warming
- e. Can ecosystem restoration be used to reduce impacts of climate change?
- f. Modeling and forecasting as tools to predict the effects of large-scale ecosystem restoration on regional impacts of climate change

9. Current challenges for ecosystem restoration in today's economic and political landscape

- a. Impacts of reduced federal / state funding for large-scale ecosystem restoration programs
- b. A regional comparison of government support and funding for ecosystem restoration initiatives
- c. Examining the role of government agencies, non-profit organizations, and private corporations in large-scale ecosystem restoration
- d. How to increase effectiveness of science, policy, and implementation of ecosystem restoration programs in the face of decreasing budgets
- e. Public-Private Partnerships – a new approach to implementing ecosystem restoration projects?
- f. New challenges and opportunities arising from emerging federal and state legislation for ecosystem restoration
- g. The importance of context for driving political and social support for ecosystem restoration

10. Ecosystem-based technical sessions

- a. Estuaries
- b. Coasts
- c. Rivers and streams
- d. Riparian areas
- e. Woodlands
- f. Others