NCER 2016 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
2. **Making large-scale ecosystem restoration program implementation sustainable**
    a. Stable funding mechanisms
    b. More sophisticated approaches to communications
    c. Improving implementation accountability
    d. Creating ecosystem restoration markets to attract private enterprise interest
    e. Incentives for local landowners and stakeholders to partner with governments on ecosystem restoration efforts
    f. Long-term funding requirements and their value for planning, implementation, monitoring, and adaptive management
3. **Adapting to emerging ecosystem-scale stressors (e.g. climate change, invasive species)**
    a. Building flexibility and responsiveness into planning
    b. Learning from industry and/or non-traditional restoration businesses and programs
    c. Developing proactive approaches to address emerging issues
    d. Defining and understanding principles of adaptive management and adaptation planning
4. **Science tools, synthesis, and application in support of restoration implementation**
    a. Restoration vision and performance measures for success
    b. Prioritizing restoration projects and funding in support of restoration implementation
    c. Tools to support restoration implementation accountability and assessment of success
    d. Measuring restoration progress made towards restoration end goals
    e. Showcasing the value of ecosystem restoration to non-technical audiences
    f. Ecosystem monitoring and data management – essential tools for ecosystem restoration
5. **Planning for and achieving ecosystem resilience**
    a. Measuring resilience
    b. Adaptation plans, flexibility, robustness
6. **Improving restoration communication, stakeholder engagement, and conflict resolution capacity throughout all levels of government**
    a. Science communication to decision-makers, stakeholders, and public
    b. Valuing ecosystem benefits – ecosystem services, predicting restoration benefits
    c. Ecosystem restoration need and importance
    d. Communication, stakeholder engagement, and conflict resolution capacity building and training
7. **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. Restoration partnerships and coordination
    d. Forums for intergovernmental and non-governmental dialogue to support large-scale restoration planning
8. **The state of the science in ecosystem restoration**
    a. Nutrient reduction case studies for freshwater and marine environments
    b. Invasive species impacts
    c. Success / failure of ecosystem restoration projects to replicate natural abiotic and biotic processes
    d. Water quality and water quantity issues in ecosystem restoration
    e. Successes and failures of the adaptive management model in ecosystem restoration
    f. Watershed based restoration programs – the trend of the future?
    g. The power of models – Considerations of the balance between detail and uncertainty in the predictions of ecosystem restoration program outcomes
    h. Defining "large-scale" ecosystem restoration – how many small projects make one big program?
9. **Ecosystem restoration as tool for enhancing resiliency**
    a. Use of restored ecosystems as natural infrastructure to reduce risk from seal 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
10. **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