North Atlantic LCC Needs Review Results

- 17 top common science needs
  - 3 aquatic, 4 coastal, 6 terrestrial, 4 multiple
- 4 top information management needs
- Linked to about 80 more specific needs and projects

North Atlantic LCC Priority Science Needs

- Vulnerability of coastal wetlands and beaches to sea level rise and other anthropogenic stressors
- Recommendation: assessment of current state of science, data gaps and needs; determine most important value added

North Atlantic LCC Priority Science Needs

- General vulnerability assessments to northeastern fish and wildlife habitats and species
- Recommendation: Fully fund RCN 2010 Manomet/NWF phase II project incorporating NatureServe species Vulnerability Index (converge two approaches)

North Atlantic LCC Priority Science Needs

- Specific vulnerability assessments of northeastern amphibians
- Recommendation: Work with NEPARC to address highest priority regional scale needs to understand vulnerability of amphibians to land use change and climate change

North Atlantic LCC Priority Science Needs

- Specific vulnerability assessments of cold water stream habitats and species including brook trout
- Recommendation: Convene a meeting of principal investigators, partners and partnerships (EBTJV) working on vulnerability of brook trout and coldwater streams to facilitate working together and identify highest priority next steps

North Atlantic LCC Priority Science Needs

- Habitat mapping and modeling of marine bird distributions and coastal migration of birds and bats
- Recommendation: Work with ACJV, Division of Migratory Birds and States to assess current status and needs for marine bird and coastal migration data; identify data gaps.

North Atlantic LCC Priority Science Needs

- Species-habitat modeling and mapping of aquatic species
- Recommendation: Develop consistent, comparable approaches to hydrology and temperature that can complement the NEAFWA aquatic habitat classification and map and connectivity analysis; develop species-habitat models for representative species

North Atlantic LCC Priority Science Needs

- Species habitat modeling and mapping of terrestrial and wetland species
  Recommendation: Develop species habitat models for all representative species expanding initial set of models developed for *Designing Sustainable Landscapes* to include additional species and geographic areas and explore options for occupancy models for a subset of these species.

North Atlantic LCC Priority Science Needs

- Assessment of forest condition and management
- Recommendation: Support regional assessments of forest age and structure to relate forest condition and forest management to regional habitat capability and connectivity

North Atlantic LCC Priority Science Needs

- Climate model downscaling
- Recommendation: No action needed but articulate needs next year for Climate Science Center

North Atlantic LCC Priority Science Needs

- Assessments of landscape connectivity
- Recommendation: Consider applications of existing local and regional connectivity analyses by TNC and UMass to prioritization of land protection; evaluate need for road and transmission data for Northern Forest Region; investigate opportunities for working with transportation planners in pilot areas

North Atlantic LCC Priority Science Needs

- Analysis of recent landscape change
- Recommendation: Request additional detail on assessment approach and link to decision support

North Atlantic LCC Priority Science Needs

- Identifying focal areas for conservation (PARCA)
- Recommendation: Include in larger needs discussion with NEPARC; determine appropriate short-term LCC investment to leverage longer term benefits and resources.

North Atlantic LCC Priority Science Needs

- Best management practices for vernal pools
- Recommendation: Discuss role of LCC in developing model regulations with Steering Committee; review model guidelines developed in RCN (NatureServe) project and other existing efforts

North Atlantic LCC Priority Science Needs

- Detecting changes in species distribution (coastal marine invasive species)
- Recommendation: Support detail with the LCC to develop overall strategy and highest needs for invasive species

North Atlantic LCC Priority Science Needs

- Adaptation planning pilot projects
- Recommendation: Summarize ongoing demonstration projects through Manomet, NWF and others; explore opportunities at Chincoteague/Assateague to support planning; consider other types of demonstration projects (e.g., forest connectivity); select projects that LCC can be value added

North Atlantic LCC Priority Science Needs

- Habitat mapping and modeling at NALCC scale (GAP Analysis).
- Recommendation: Review outcomes of recently published RCN/TNC Conservation Status document; consider follow-up analyses on specific habitats (e.g., floodplains)

North Atlantic LCC Priority Science Needs

- Adaptive Management Frameworks for Representative Species (American Black Duck)
- Recommendation: Consider pilot adaptive management project for this representative species in cooperation with the Chesapeake Bay Program. Small amount of funding needed.

North Atlantic LCC Priority Science Needs

- Long-term data management system
- Recommendation: Develop phased approach beginning with needs assessment; consult with adjacent LCCs and national LCC and CSC efforts. Engage agencies with existing databases. Specific needs such as habitat management could be developed and incorporated later.

Next Steps

- Technical Committee and staff to act on Steering Committee recommendations
- Discussions with partners on specific steps and needs
- Assess need for targeted RFP(s)
- Select projects
- Develop agreement(s) to obligate funds
- Steering Committee role in approval of final projects