

Table of Highest Ranking 2015 Science Needs

Topic	Relative Score*	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
Assessment of connectivity and resiliency of tidally influenced road crossings	100	Inform where to upgrade, restore, and repair tidal road crossings to benefit aquatic organisms and mitigate flood damage	Complements large LCC aquatic connectivity project for non-tidal road crossings	Survey protocols, field surveys, incorporation of data into connectivity prioritization tools	\$100,000
Aquatic classification for eastern Canada	88	Foundation for regional-scale conservation planning and prioritization	Extends U.S. classification for Northeast and Appalachian LCC regions	A consistent, mapped classification of stream and lake features into recognizable categories	\$110,000 (+ \$40,000 from partners would fully fund)
Planning for marsh migration with sea level rise and increased storm surge	88	Inform efforts to mitigate future tidal wetland loss by identifying potential areas for upslope marsh migration	Builds on marsh resiliency project (Hurricane Sandy) and other LCC work	Field-based surveys near conserved areas; maps of suitable areas for marsh migration	\$115,000†
Vulnerability of cultural resources to flooding; consistent floodplain assessment	80	Begin integrating cultural resources into planning and inform most important floodplains for conservation	Adds cultural resources to current LCC portfolio; complements and refines terrestrial and aquatic mapping	Regional assessment of cultural resource vulnerability to flooding; regional mapping of floodplains	cultural resources: \$25,000 floodplains: \$100,000
Evaluation of stream networks for climate resilience	66	Identify high-priority aquatic areas for long-term resilience	Adds to conservation design planning that incorporates terrestrial resilience	Regional map, spatial dataset and tool for stream resilience	\$100,000
Rare plant prioritization	54	Prioritize conservation needs for rare plants	Complements LCC-supported assessment of animal species (SGCN)	Assessment of the conservation status of wild plant species across the Northeast	\$75,000
Impact of sea level rise and storms on Atlantic Flyway migratory shorebird stopover habitats	54	Project impact of changes in stopover habitat for use in planning and management for beaches and tidal flats	Builds on Piping Plover, beach resiliency, and sea level rise projects	Project future availability of shorebird stopover habitat and impacts to shorebird populations	\$80,000

*The relative score is based on rescaling so that the votes of each of the three Technical Committee sub-teams have equal weight and so that the science need that received the most votes is assigned a score of 100.

†We expect to hear by May 4 whether this can be funded separately through Hurricane Sandy resiliency funds.

Additional High Priority Science Needs Considered by Technical Committee

Topic	Relative Score	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
Marine bird distributions	40	Overlay projected oceanographic habitat changes and prey abundance with marine bird aggregations to assess impacts	Leverages existing marine bird mapping and assessment project	Mapping and analysis of projected changes in distribution and abundance of birds based on various future scenarios	\$80,000
Regional forest structure	39	Understanding forest structure and condition (e.g. age, canopy height, management history) to improve species models and answer questions related to species habitat capability and change	Additional forest structure and condition data would significantly aid conservation design efforts	Mapping and analysis of current forest structure and condition using LiDAR, other remote imagery, FIA and forest management history data where available	\$125,000
Quantifying ecosystem services and benefits	38	Incorporation of the values and benefits of nature using recently completed Northeast habitat maps and new software tools such as InVEST to ensure such benefits are available to decision makers	Builds directly off of the Northeast terrestrial and aquatic habitat maps and their underlying datasets	On-line tools to allow users to quantify services such as carbon storage, timber production, sediment retention, flood mitigation, and coastal protection	\$100,000
Stream temperature network	28	Stream temperature information is essential for assessments of stream condition and habitat suitability for a myriad of aquatic organisms both under current conditions and with climate change	Used directly by brook trout projects and <i>Designing Sustainable Landscapes</i>	Enhancement and expansion of a centralized stream temperature database that can be used by states and other partners and improved quality assurance and functionality of stream temperature data	Scalable with level of demand met
Forest block prioritization	27	Synthesize complex existing datasets in a tool to prioritize forest blocks across Northeast for protection and management	Informs conservation planning and design efforts such as RCOAs	Tool allowing users to query and rank factors to help in development of a network of connected habitats across the region	(Not estimated. May be appropriate for consideration for Science Delivery needs)