**2012 Highest Priority Science Needs for the**

**North Atlantic Landscape Conservation Cooperative:**

**Summary of Recommendations of the LCC Technical Committee**

|  |  |  |
| --- | --- | --- |
| Science Need | Potential Costa | Running Total |
| 1) Phase II of Designing Sustainable Landscapes project, extended to 13 Northeast states | $406,000 | $406,000 |
| 2) Develop a regionally consistent aquatic habitat classification system, select representative aquatic/coastal species, and compile species-habitat relationship and range information for coastal, estuarine, and freshwater fish and other species | $290,000 | $696,000 |
| 3) Consistent regional coastal mapping for habitat, species, infrastructure, and elevation in the North Atlantic (including Canada) | $75,000 | $771,000 |
| 4) Develop seamless land cover and stream mapping that spans the U.S.-Canada border of the North Atlantic LCC | $150,000b | $921,000 |
| 5) Develop coastal wetland restoration methodologies for climate adaptation given a range of state conditions with monitoring frameworks | $180,000 c | $1,101,000 |
| 6) Better characterize the location and abundance of vernal pools across landscapes and their use by amphibians | $85,000 | $1,186,000 |
| 7) Understand implications of marsh migration, fragmentation and conversion due to sea level rise on salt marsh dependent species | $45,000 | $1,231,000 |
| 8) Identify comparable strategies for standardization of aquatic sample design, methodology, and monitoring for data analysis | $250,000 | $1,481,000 |
| 9) Inventory and assess risk for estuarine and marine invasive species from Maine to Virginia | $225,000 | $1,706,000 |
| 10) Understand and develop models to quantify and describe ecological flow in the North Atlantic | $250,000 | $1,956,000 |
| 11) Improve characterization of forest structure and condition across the North Atlantic  | Not estimated |  |

a Preliminary estimate of costs required to implement projects that address the science needs (except Designing Sustainable Landscapes Phase II estimate is based on project proposal).

b Cost estimates presume additional support is provided by the Northeast Climate Science Center as part of the funding opportunity announced on March 13, 2012.

c Cost assumes inclusion of a field component; $150,000 if modeling component only.

Additional note: the Technical Committee continues to believe that understanding vulnerability of coastal ecosystems to sea level rise is one of the highest priority science needs of North Atlantic LCC. It is not listed in the table based on the assumption that the topic will receive support through the Northeast Climate Science Center 2012 funding opportunity.