**Summary of Proposal for Phase II of Designing Sustainable Landscapes**

The *Providing Science and Tools in Support of the North Atlantic Landscape Conservation Cooperative: Designing Sustainable Landscapes for Wildlife* (Designing Sustainable Landscapes) project is assessing the current capability of habitats in the North Atlantic to support sustainable populations of wildlife and predicting the impact of landscape-level changes - including those from climate change and urban growth - on the future capability of these habitats to support wildlife. It will provide decision-support tools to assist conservation managers in developing strategies to sustain wildlife populations in the face of these changes. In phase I of the project (to be completed May 2012), the framework for the Landscape Change, Assessment and Design (LCAD) model was developed. The landscape change and assessment portion of the was also implemented and tested in three study areas: Kennebec River watershed, middle Connecticut River watershed, and the combined Pocomoke-Nanticoke River watersheds. The objective of phase II is to extend the project in the following ways:

1. ***Extend the geographic scope of the overall project and modeling framework to the extent of the USFWS/NEAFWA Northeast Region (13 states + D.C.).***

Includes developing required GIS datasets, extending existing species and ecological integrity models, improving urban growth models, and compiling and disseminating model results.

1. ***Develop climate-habitat capability models for an additional suite of representative species.***

An additional 20 species will be selected in consultation with the North Atlantic LCC. Climate niche and habitat capability models will be developed for each species.

1. ***Develop landscape design and decision-support tools in close consultation with decision makers including but not limited to tools to to prioritize conservation actions for land protection, management and restoration.***

Decision-support tools will be developed in coordination of resource managers and scientists across the North Atlantic LCC. Workshops for potential users within the three phase I pilot watersheds (Kennebec, Connecticut, Nanticoke/Pocomoke) are being developed with LCC for summer 2012, which will be used to inform decision-support development.

1. ***Improve the forest succession model to incorporate spatial variability within ecological systems.***
2. ***Incorporate a sea level rise model into the LCAD model; to be developed by an LCC or CSC cooperator in coordination with the UMass team.***

A regional sea level rise model will be developed by a cooperator through the Northeast Cliamte Science Center and incorporated into the modeling framework and decision support tools.

1. ***Implement the regional connectivity assessment component of the landscape ecological integrity (coarse filter) assessment.***

Extends the ecological integrity assessment to assess regional connectivity (current version includes local connectivity).