

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2012 PROGRESS REPORT

Quarter: 2012 4th quarter (October 1, 2012 through December 31, 2012)

Grant Number: NALCC 2011-05

Grant Title: Permeable Landscapes for Species of Greatest Conservation Need

Grant Receipt: The Nature Conservancy

Grant Contact Name: Mark Anderson

Were planned goals/objectives achieved last quarter?

Yes

Regional Conservation Need Addressed: RCN Topic 4: Identification of Regional Focal Areas and Corridors for the Conservation of Species of Great Conservation Need in the Northeast

Progress Achieved:

GOAL 1: Re-run resistant kernel analysis for the Northeast (or at least NAP) with the 2006 NLCD and resistance layer improvements. We did not fully accomplish this goal because some of our potential state users found errors and omissions in the roads datalayer. To address this we reviewed the new 2012 tiger roads and found that these were a major improvement from the ESRI 2010 roads. They have significantly more forest roads, and look much more accurate spatially than the 2010 tiger roads. The 2012 tiger roads are only available in a county by county download. We obtained a script written to batch the download and extraction. Next, we merged the county files to a region-wide geodatabase. Then, we used the type attribute to separate out the major and minor roads. Finally, we burned the roads into the improved 2006 NLCD landuse grid. Although this step took some time, it will pay-off in the accuracy and quality of the final product.

GOAL 2: Finalize python program to automate individual runs of the circuitscape tiles for regional connectivity and also post process the results to create the final grid.

The final scripting was completed and tested on the new resistance grid with excellent results. This allows us to begin experimenting with the cell size and weighting

Difficulties Encountered: Errors in road layer described above. .

Activities Anticipated Next Quarter:

- Re-run resistant kernel analysis for the Northeast with the 2006 NLCD, 2012 Tiger roads layer and resistance layer improvements

- Change the regional connectivity parameters (cell size, tile size, water weighting) to improve the model and test the sensitivity of the model to input parameters
- Begin downloading and experimenting with traffic volume layers.

Costs:

Are you within the approved budget plan? Yes

Are you within approved budget categories? Yes

A handwritten signature in black ink, appearing to read "Mark Anderson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Signature: Mark Anderson, Director of Conservation Science

Date: January 29, 2013