NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2014 PROGRESS REPORT

Quarter: 4th, 2014

Grant Number and Title: NALCC 2013-02 "Increasing Resiliency for Riverine Ecosystems via Collaborative Culvert Assessment"

Organization: University of Massachusetts Amherst

Project Leader: Scott Jackson, Extension Associate Professor

Abstract: To conduct assessments of river and stream continuity and set priorities for restoring aquatic and terrestrial connectivity at a regional scale, such as that of the NALCC project, it is necessary to reconcile disparate approaches for road-stream crossing assessment and knit them together into a compatible system for use across state lines and over large areas. The goals of the project are to 1) create a network of individuals and organizations working together to assess barriers, set priorities, and implement projects that restore river and stream continuity and enhance the resiliency of transportation infrastructure, and 2) create an infrastructure of GIS data, assessment protocols, scoring algorithms, databases and data sharing applications to support road-stream crossing assessments and priority setting for the restoration of aquatic connectivity.

Were planned goals/objectives achieved last quarter? Yes

Progress Achieved:

- Regular core and work group meetings and webinars occurred
- Draft protocol was developed and vetted by work group
- The database was updated to accept data from all 13 states in the North Atlantic region
- Prioritization of areas for field surveys continued and work group input was gathered

TASK	TASK DESCRIPTION	% DONE	PROGRESS NARRATIVE
1.1	Assemble and coordinate a team of Northeast Partners	50%	• Core group met regularly including an in-person meeting in Oct. • Continued to expand the NAACC working group to better represent the project geography and important stakeholder

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			organizations: working group now has over 60 members • Held 2 working group webinars on survey protocol and prioritizing for field surveys • Gathered additional feedback from working group via post-webinar web-based surveys
1.2	Create a broad network of individuals and organizations to conduct assessments of stream crossings	20 %	• A portion of the working group participants are actively engaged in on-the-ground assessment work • Began planning to hold two in-person meetings and field trainings for field survey staff and surveyor trainers in April and May
2.1	Identify sources of road-stream crossing data currently available in the region	30 %	• Some sources have already been identified. • All states encompassed by the NAACC project area will be contacted to attempt to locate all existing crossing datasets from state and federal agencies and non-governmental organizations.
2.2	Reconfigure River and Stream Continuity online database to accept data from NY and data collected using other protocols	20 %	• 13 states can enter data into the database using current Continuity Database forms and methodology • Over next two quarters, will consider how to handle existing data collected using other protocols from states
2.3	Compile currently available data into the River and Stream Continuity Project's online database	0 %	
3.1	Compile information on the various protocols and scoring systems currently being used in the region or in neighboring	100 %	• Information was compiled on eight protocols and scoring systems.

TASK	TASK DESCRIPTION	% DONE	PROGRESS NARRATIVE
	regions		
3.2	Crosswalk assessment data fields across protocols and implement scoring algorithms that will yield comparable scores for multiple data collection methodologies	15 %	• We have been comparing protocols. • We will begin work on scoring algorithms over the next quarters
4.1	Create categories for assessment protocols based on objective or level of rigor	100 %	• The work group identified five potential modules that could be developed in addition to the core aquatic connectivity module. The initial list of all metrics to be collected in either the core module, or in one of the proposed additional modules, was broken into two different tiers of categories to help understand better how those metrics function. The first, simplest level of categories places metrics into these groups: 1) Site, 2) Crossing, 3) Structure, 4) Secondary Structures, and 5) Other. Further grouping of metrics was done within each of the above groups as below: 1. Site: General, Location, Road, Dimensions 2. Crossing: Type, Condition, Stream, Structure, 3. Substrate Structure: Type, Dimensions, Structure, Substrate 4. Secondary Structures: Type, Dimensions, Structure, Substrate
4.2	Evaluate the strengths and weaknesses of the various protocols available for use in the region	100 %	• The work group provided feedback about overall composition of the core proposed aquatic connectivity module, and constituent metrics. • Work group members have experience with related survey methods and clarified the strengths and weaknesses of overall approach, individual metrics, and how those metrics can be effectively collected. • Important examples of direction given by the

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			work group include: benefit of assessing terrestrial wildlife passage potential, tidal sites, and geomorphic stability factors within the core aquatic connectivity module. • Examples of feedback on metrics include: emphasis on inclusion of a wider variety of potential physical barriers and how best to assess tailwater pools downstream of crossings.
4.3	Make recommendations on protocols that should be broadly used throughout the region	75 %	• A strawman protocol was presented to the Work Group for feedback and is currently being updated
5.1	Identify road-stream crossings across the North Atlantic region and make available by state and for the region as a whole	100 %	• Done for the entire 13 state region. Crossings have been identified and are available by state for the region.
5.2	Assign xycodes to all identified crossings across the region	100 %	• All crossings in the North Atlantic region have been assigned xycodes as of Q3.
5.3	Make recommendations for an online database that can store, score and make available data on road-stream crossings across the region	0 %	
5.4	Identify existing data gaps and prioritize areas for new field surveys	45 %	• A draft prioritization was developed and shared with the NAACC core group. • Based on feedback from the core group, a presentation was developed for a working group webinar laying out key questions and decision points • Feedback from the working group, collected via web-based survey, showed broad consensus on most topics. • We are moving forward in 2015 Q1 based on

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			this consensus.
6.1	Complete report of results and recommendations of next steps	0 %	
6.2	Make road-stream crossing assessment and GIS data available for download	0 %	

Difficulties Encountered: None.

Activities Anticipated Next Quarter:

- Hold successful remote and in-person core group meetings
- Core group presents updated assessment protocol to work group for comments and incorporates feedback
- Host two work group webinars with follow-up surveys to capture feedback and discuss: 1) the database and digital data collection, and 2) training and QA/QC
- Make progress on designating and formatting the database for assessment data
- Continue prioritization of areas for field surveys based on work group feedback

Expected End Date: 18 months from contract finalization between WMI and UMass (Sept. 30, 2015)

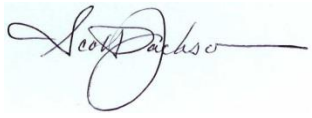
Costs:

Total expenses this quarter: $23,345 ($20,300 direct)

Total life to date expenses (including this quarter): $37,733 ($32,811 direct)

Total Approved Budgeted Funds: $150,000 ($134,644 direct costs)

Are you within the approved budget plan and categories: Yes

Signature: 

Date: January 30, 2015