

# NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2015 PROGRESS REPORT

Quarter: (circle one)

2015 1<sup>st</sup>

2015 2<sup>nd</sup>

2015 3<sup>rd</sup>

2015 4<sup>th</sup>

Grant Program, Number and Title: NALCC 2012-06: F11AC00223 MOD #3 NALCC 1420  
Spatially explicit models for aquatic habitats

Organization: Downstream Strategies, LLC

Project Leader: John (Fritz) Boettner

Abstract: Please provide a short (1-2 paragraphs) abstract that addresses EACH of the following: the objectives of your project, accomplishments to date, future plans and timelines with an estimate for when the project will be completed.

In 2014 Quarter 4, DS finalized a modified scope of work with the NALCC to meet the goals of the project. DS was originally contracted by the NALCC to perform between 15-20 habitat assessments for areas within the NALCC region. Based on discussions with the DS project manager, the NALCC assessment project coordinator, and the assessment advisory group, it was determined a modification to the original scope of work was necessary. While the overall intent of the project will not change, after nearly two years of work it has become apparent that the original scope of work is no longer attainable given the effort necessary and the modified needs of the stakeholders. The modified scope of work will focus on discrete modeling efforts and ensure that frameworks are well-developed and the results are adequate, useful, and accepted by the stakeholders and user-groups. Our objectives will continue to function around a stakeholder-driven process to compile, analyze, and model existing data; producing results that will be useful to resource managers and develop model frameworks for estuarine and diadromous species.

Specifically, DS will produce the following deliverables (details provided in the following sections):

- Complete Chesapeake Bay brook trout model climate change scenarios. Supplementing the existing model with new climate change scenarios.
- Complete winter flounder case study for Narragansett Bay. Ongoing effort, the focus for this model is to develop useful products for winter flounder managers, but also to create a framework that could be applied to other coastal or estuarine species. This model is nearly complete.
- Winter flounder model for Long Island Sound. Using the framework developed for the Narragansett Bay, DS will apply this approach and develop a Long Island Sound winter flounder model.
- Develop a diadromous species framework for river herring. This effort will build from the TNC assessment, which compiled and analyzed river herring data for the Atlantic coast.
- All of the results produced in these efforts will be incorporated into a web-based decision support tool.

Were planned goals/objectives achieved last quarter?

Planned goals for Q1 2015 include:

1. **Draft brook trout technical report** – In draft form, comments provided by technical review team. Modification to report content was requested and approved. Additional content includes a comparison of the DS model with the other Brook Trout modeling efforts in the NALCC. Report will be complete in Q2 2015. A summary report was also discussed to supplement the technical report, an outline was provided and comments were gathered. Summary report will be completed in Q2 2015.
2. **Geodatabase of all data and brook trout model results** – Draft form
3. **Nar. Bay winter flounder model technical report** - Draft form, additional comments gathered from the coordinator group. The Nar. Bay and LIS model reports will be combined into a single document and submitted in Q2 2015
4. **Geodatabase of all data and winter flounder model results** - Draft form
5. **Long Island Sound (LIS) winter flounder model technical report** – Still processing data and building models. Additional comments gathered from the coordinator group. The Nar. Bay and LIS model reports will be combined into a single document and submitted in Q2 2015
6. **Geodatabase of all data and LIS winter flounder model results** – Not started

Progress Achieved: (For each Goal/Objective, list Planned and Actual Accomplishments)

- **Task 1: Inland model (Chesapeake Bay watershed brook trout model)**
  - Planned: Final model and report
  - Achieved: Final model and draft report
- **Task 2. Narragansett Bay winter flounder model**
  - Planned: Final model and report
  - Achieved: Final model and draft report
- **Task 3: Long Island Sound winter flounder model**
  - Planned: Final model and report
  - Achieved: Data processing and technical review of methods
- **Task 4. Diadromous species case study**
  - Planned: Final model and report
  - Achieved: Still discussing solutions with stakeholders
- **Task 5. Decision support tool**
  - Planned: Stakeholder feedback and coordination, data processing, tool development
  - Achieved: Based on other efforts unrelated to this project, a draft tool is complete and put out for stakeholder feedback.

Difficulties Encountered:

The diadromous modeling task has encountered data limitations that will not allow a predictive model to be created to assess habitat. Specifically, River Herring was selected, but the available data is not structured to allow for predictive modeling. This decision was made by the technical review team. A remedy is being discussed at this point, possible solution is to integrate Erik Martin's (TNC) River Herring Assessment data into the Decision Support Tool. A resolution to the issue is still under discussion.

Activities Anticipated Next Quarter:

- Final Brook trout reports and data
- Final Winter Flounder report (N. bay and LIS) and data

Expected End Date: June 30<sup>th</sup>, 2015

Costs:

Total life to date expenses (include this quarter): \$174, 064.97

Total Approved Budgeted Funds: \$250,000

Are you within the approved budget plan and categories? Yes

Signature:

A handwritten signature in blue ink, appearing to read "J. B. Bell", is written over a light blue rectangular background.

Date: April 10, 2015