Northeast Regional Conservation Quarterly Report

Grant Number: 2007-07

Grant Title: Proposal to Establish a Regional Initiative for Biomass Energy Development for Early Successional SGCNs in the Northeast

Grant Receipt: 6/11/2008

Grant Contact Name: Scott Klopfer

Report #: 2009-01

Abstract

Our project is entering the final phase and will be completed by the March 4th, 2010 end date. Our objectives for developing a website and populating it with map and other information are complete. We have also completed the analysis of biomass systems and potential impacts on SGCNs for each state. The only remaining tasks to be completed include the publishing of state-level summaries and databases to the web (expected to be available by January 22nd), a regional summarization report (expected March 1, 2010) and a symposium to be held as part of the 2010 NEAFWA meeting in Massachusetts (date to be determined).

Were planned goals/objectives achieved last quarter?

Progress was made on remaining incomplete objectives.

Objective 1 - ongoing. We continue to identify opportunities to speak with constituents within State agencies and non-governmental organizations. We attended the joint meetings for the Habitat Technical Committee and Wildlife Diversity Technical Committee in Lewes, Delaware to present the project and recruit interested state contacts.

Objective 2 – complete. The website is operational and is populated with information. We are continuing to update references to news items, facilities, etc.

Objective 3 – complete. The website has a map capability that shows biomass refineries on the landscape (planned or operational). It also allows other users to add refineries.

Objective 4 – complete. Initial analyses were completed for each state. During this process, we elected to provide an opportunity for biologists from each state to supply their own assessments if they choose to do so. We created worksheets for each state to simplify the process. To date, no biologists have responded to our offer.

Objective 5 – complete. The regional and state analyses are complete. However, we are waiting to finalize this information until November to allow state biologists to provide input.

Objective 6 – ongoing. Once the other objectives have been met, we will be able to package the information by state and post this to the website. Templates for these reports are complete and are only awaiting final results for inclusion. Completion of the final report and regional analysis are ongoing. Expected completion of all project reporting is March 4, 2010.

Regional Conservation Need Addressed: Regional Landscape-level habitat initiatives

Progress Achieved:

1. Build a coalition of organizations and individuals working in each state in the Northeast (at least one group per state)

We have been participating in meetings to introduce the initiative and to enlist state biologists and managers in assisting with the initiative. We provided a presentation to the NE Habitat Technical Committee (by invitation) meeting. We now have individuals contacted and interested in further participation from Maine, New Hampshire, Vermont, Delaware, Pennsylvania, New York, West Virginia and Virginia.

We are presently identifying organizations and companies within each state that list biomass production interests as a primary objective of their mission. We are building a database of these companies and making initial contacts with them via phone or email.

2. Create Internet site to serve participant database, relevant materials, and communications

The Internet site is operational and is available at http://fwie.fw.vt.edu/nebiomass/. The site provides introductory information for both the biomass energy industry and wildlife biologists (Figure 1). We include definitions of common biomass terms, principals of basic habitat management, and a searchable database of recent articles on biomass activities in the Northeast and the US. We also provide links to external resources for those who wish to find more detailed information.

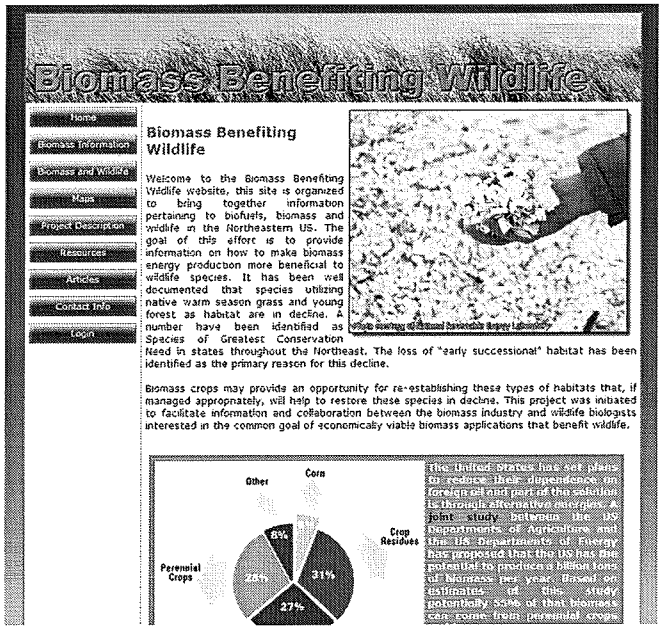

Figure 1. Homepage of the website created for this project.

3. Compile a list of ongoing/potential biomass energy development projects by state

We have identified over 100 facilities in the Northeast (Figure 2). These are mapped on the website. These can be easily grouped by state for the final reporting. We continue to update this information as new sites are identified.

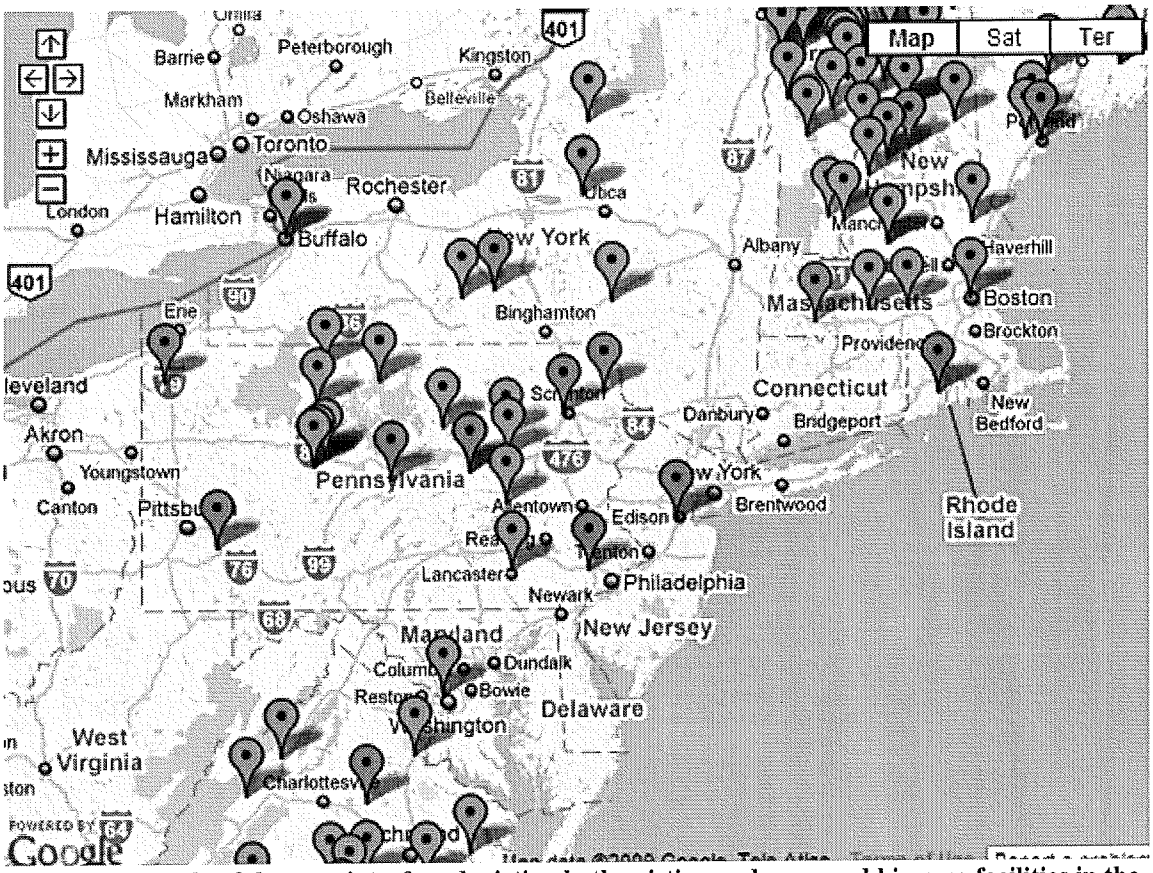

Figure 2. Example of the map interface depicting both existing and proposed biomass facilities in the Northeast.

4. Use list along with SGCNs and SWAPs to assess potential impact of biomass development on these species

We consolidated state lists of SGCNs across major taxa for amphibians, reptiles, birds, and mammals. We then identified 6 biomass energy applications with a high probability of implementation (or have already been implemented) in the Northeast. These are:

Native NWSG mix
Monoculture grass (dedicated)
Dedicated monoculture of deciduous woody plants
Dedicated monoculture of coniferous woody plants
Native early successional woody plants
Thinned timber stand

Impacts on SGCNs were determined by considering the existing land cover and the resulting impact of conversion to one of these biomass systems. We used the general land cover types of:

Agriculture (row crop, pasture/hay)
Mature Deciduous

Mature Coniferous
Shrub land

We categorized the potential impacts to species as either positive (i.e., will provide more potential habitat), negative (i.e., will provide less potential habitat), or no impact (i.e., the interaction is either not applicable or is unlikely to impact the species positively or negatively). This was done in a matrix for each general species grouping.

Due to the sheer volume of work that would be required for this analysis (SGCN x biomass system x land cover), we elected to complete assessments for general habitat guilds (e.g, mature deciduous forest species) and then assign each SGCN to one of those groups. We used 9 habitat guild groups based on general land cover required by the species. These were:

Mature Deciduous Forest	Mixed Woodland
Mature Coniferous Forest	Early successional
Mature Mixed Forest	Grassland
Deciduous Woodland	Agricultural
Coniferous Woodland	

Other types, like wetland, were not included as they are unlikely to be directly utilized for implementing biomass systems for regulatory or logistical reasons.

5. Create database of SGCNs and biomass issues and post on website

This database is complete and replicated for each state in the Northeast. The databases contain all SGCN/Biomass type interactions for birds, mammals, and herps listed as SGCN in the state.

Impact assessments were completed by staff biologists and reviewed internally. Opportunities for external review and comment were extended to biologists attending the recent Technical Committee Meetings in Delaware, but to date we have received no interest.

The final analyses were completed for each state and the region. We incorporated comments received at the Technical Committee Meeting in Delaware by separating the "agriculture" class into "row crop" and "pasture/hay" classes.

6. Complete state-bundled information and supply to each state

We have completed a template report for each state that will be populated with the final assessment data. These reports will be made available as PDF documents for each state and will be served via the website. We have developed a tool utilizing the data from each state that will allow users to manipulate the biomass-species and biomass-habitat impacts should they disagree with our assignments. This is a very useful capability for extended use of the project products that was not originally included.

7. Convene a workshop outlining the results of this project, disseminating recommendations/opportunities identified, and allowing for wider engagement of the wildlife community in biomass related wildlife issues.

Initial plans were to convene this workshop at the 2009 NEAFWA meeting but were unable to meet the deadline for submission of materials.

We are submitting a proposal for a half-day symposium/discussion on Biomass Benefitting Wildlife due January 15, 2010. The objective of this symposium will be to provide biologists attending the meeting with basic information on how to actively engage the biomass energy industry to improve wildlife habitat for their state SGCNs. Participants will receive information resulting from this project as well as other resources.

The abstract submitted to the program committee for consideration is:

> **Biomass Benefitting Wildlife? Opportunities and obstacles to biomass crops as SGCN Habitat**
>
> There is a great deal of interest in biomass energy systems in the Northeastern US. The proposed systems are taking many forms many of which have wildlife biologists concerned about impacts to species of greatest conservation need. However, there are some systems under consideration that may provide opportunities for wildlife conservation if biologists actively participate early on in the design process.
>
> This workshop will introduce the results of a project funded by the NEAFWA RCN project in 2007 that examined the potential impacts to some SGCN species throughout the region. We will discuss how the results of that project may be used by state biologists to better understand how proposed biomass systems may impact reptiles, amphibians, birds, and mammal SGCNs in their state. We will also discuss some strategies for engaging the biomass industry early in their planning process to potentially improve residual wildlife benefits for their projects.

8. Complete a final report detailing all project activities, accomplishments, outcomes and recommendations for further action.

The final report will summarize our state level findings for the Region. Much material to support this project is already complete. This report will pay particular attention to the regional perspective for the potential for landscape changes to impact SGCNs at the regional level. The report will be published in PDF format on the project website.

Difficulties Encountered: We are dealing with personnel changes to the project that have resulted in delays for completing final tasks, however we will be able to complete all project deliverables on or before the end date of March 4, 2010 with the exception of the symposium which will not take place until April. However, we should know whether or not our workshop proposal is accepted before the end date on the project.

Activities Anticipated Next Quarter:

During the next quarter we anticipate:

1. Posting of state-level PDF reports and databases to the project website (expected by January 22, 2010).
2. Completion of the final report and posting to website (by March 4, 2010).
3. Submission of a proposal for a biomass and wildlife interaction session at the NEAFWA meeting in 2010 (completed January 7th, 2010)

Costs:

We are within our budget plan on all line items. We do expect to increase the costs related to travel (supplied as matching funds by CMI) in the next quarter and throughout the project.

We are within the ranges of our approved budget categories (see spreadsheet attached)

Signature:

Date: 1/5/10