NORTHEAST REGION HABITAT VULNERABILITY ASSESSMENT AND CLIMATE CHANGE CAPACITY BUILDING – PROGRESS AND NEXT STEPS

Regional Vulnerability Assessment – science progress

Over the last 12 months, Manomet and NWF have accomplished the following:

- Created a steering committee of state Fish and Wildlife Directors to ensure that the project started out by addressing the questions that most interest the state agencies.
- Created an expert panel of about 40 state, NGO and federal professionals from across the Northeast region to review and critique the directions and aims of the project
- Developed for the science expert panel a 30-page scientific report that describes to the best of our knowledge how the climate is likely to change across the Northeast Region over the remainder of this century.
- Developed for the science expert panel a report that describes the known current changes that are occurring in northeastern ecosystems in response to climate change, and what other effects may be expected in the future.
- Working with the science expert panel, we developed a first-of-its-kind habitat vulnerability model for quantifying the likely vulnerabilities of northeastern habitats to the changing climate. Based on Excel spreadsheets, this model has now been disseminated to the panel, together with a guidance report on how it should be used.
- The habitat model described above has been taken up by other agencies and is now being independently applied to ecosystems in Maryland and the South Dakota Badlands National Park.
- On completion of the habitat model, we developed from the expert panel three habitat workgroups forested landscapes, wetlands, and aquatic systems. Each is comprised of about eight habitat experts from states and NGOs across the Northeast and their function is to help review, modify, and finalize the results of the habitat modeling that are being produced by Manomet.
- We have now run the habitat model on three northeastern forested habitat types and the resulting writeups are under review by the forest workgroup. Initial indications are that the results are being received favorably.

Regional Vulnerability Assessment – science next steps

Over the next 12 months we expect to:

• Run the habitat model on another 7-10 northeastern habitat types, including forests, wetlands, and aquatic systems. The results will be reviewed, modified, and finalized with the cooperation of the relevant habitat workgroups.

- Produce a major report detailing the aims, methods, and results of the habitat modeling.
- Working with coastal experts, we will develop a predictive model that can be used by managers and scientists at coastal sites to evaluate: the vulnerability of a site to sea level rise; which habitats and species may be affected most; and what adaptive responses may be available and feasible.
- We will test the coastal predictive model by running it at at least one site. This may well be the Parker River NWR (we are already talking with PRNWR staff about the funding for this and the timing).

Capacity Building – progress

To date, NWF and Manomet have worked to build capacity within each northeastern state's fish and wildlife agency. Specifically, we have focused on: educating agency staff about the challenges posed by the changing climate and identifying adaptation options; the likely impacts that climate change will have on the region's ecological resources; and how adaptation planning is progressing throughout the northeast.

Accomplishments/Highlights:

We have

- Coordinated monthly climate adaptation safeguarding calls with state and regional climate change adaptation leaders to discuss strategies and tactics by which state fish and wildlife agencies can safeguard wildlife from climate change across the northeast. These calls enable state agency staff to share lessons learned, address challenges, and brainstorm related strategies. They include guest experts on topics associated with climate change. This work involves the following NWF national staff: John Kostyack, Bruce Stein, and Naomi Edelson.
- Convened <u>Adaptation 2011</u>, a national workshop held in Washington and focused on encouraging the implementation of "on the ground" adaptation strategies throughout the Northeast and further afield.
- Developed a 30-page scientific report that describes to our best knowledge how the climate is likely to change across the Northeast Region over the remainder of this century. This was written specifically to help educate the science expert panel.
- Developed a report that describes for the science expert panel the current changes that are occurring in northeastern ecosystems in response to climate change, and what other effects may be expected in the future.
- Built and coordinated a Regional Climate Change Expert Panel that facilitates efficient knowledge exchange on topics including vulnerability assessments, adaptation strategies, and best management practices for "on the ground" adaptation related activities.
- Organized a special session at the NEAFWA 2011 Annual Meeting entitled *Scanning the Conservation Horizon: A Guide to Climate Change Vulnerability Assessments*. The session included information on conducting vulnerability assessment as well as highlighting the current efforts of several state fish and wildlife department/ division's (Virginia, New Jersey, and New York) efforts to carry out climate change vulnerability assessments. Presentations also focused on how the valuable information garnered

from the assessments will be used in the states. Partnered with the U.S. Fish and Wildlife Service to provide multi-session trainings for conservation and resource management practitioners based upon the "Scanning the Conservation Horizon" at the NCTC training center in WV. This training course was first held in May, 2011 and is being repeated in August, 2011.

- Completed and distributed a survey to resource managers across the northeast that explores which environmental laws/policies are the biggest hindrance or help to facilitating on-the-ground climate change adaptation activities in the region.
- Completed and distributed three capacity-building Power Points that are available to state fish and wildlife agency staff in the region: *Climate Smart Demonstration Sites* (Northeast Natural History Conference); *Vulnerability Assessments in the Northeast* (NEAFWA Regional Conference); *Crosssector SWAP support in New York* (New York Wildlife and Climate Change Alliance). Also, we participated in an evening workshop coordinated by the Manomet Center for Conservation Sciences *Adapting to Climate Change in Northern New England*.
- Manage several habitat-specific expert panels to guide the build-out around three "showcase" climate smart demonstration sites in the region. This work brings together federal, state and NGO natural resource professionals working to establish a suite of guidelines to inform resource managers on how to implement on-the-ground initiatives with a climate focus.
- Hosted climate change adaptation workshops for state and NGO professionals in Vermont, New York, and New Jersey. These one day events were well attended and served as models for other states. They were often the catalyst for long-term, state-wide adaptation oriented efforts. We participated in such workshops in Maine and Rhode Island and New Hampshire.
- Advised New York staff on vulnerability assessment strategies.
- Built the New York Climate Change and Wildlife Alliance (NYCCWA) to enhance the state's capacity to amend its wildlife action plan amendment in light of climate change. We convened monthly calls with New York climate adaptation constituents designed to identify strategies for enhancing climate safeguarding capacity in New York.
- Helped lead development of the NY State Climate Action Plan. This work involved a variety of activities: participated on the Adaptation Ecosystem Technical Working Group; contributed to the Education section of the Climate Action; and provided formal comments to the state of New York on the NY Climate Action Plan.
- In Vermont, we continued to encourage state officials as they begin to "ramp up" climate change adaptation efforts. We attended two Vermont Climate Collaborative meetings where we worked with state natural resource leaders to implement programs/projects that expand Vermont's capacity to address climate change and build stakeholder momentum for a 2nd Wildlife & Climate Change Workshop. We have also been active participants at periodic Vermont Climate and Weather Research gatherings. This effort has now led to the state launching its own climate change vulnerability assessment (due to begin this fall).
- In New Hampshire, we are active on the NH Wildlife Action Plan Implementation Team, and Steering Committee. Our efforts are directed at advancing the SWAP revision process and planning the outreach

and implementation of the SWAP once it is completed. Finally, we helped organize the NH Wildlife Summit 3 and worked to generate stakeholder input on the SWAP via breakout sessions and working groups.

• In New Jersey, we worked with state agency staff to expand support and momentum for a state-wide vulnerability assessment conducted by Rutgers University.

Capacity Building – next steps

Over the next 12 months, in partnership with Manomet, we will continue and complete the above activities. We will also:

- Hold a workshop in each state showcasing how the emerging Regional Vulnerability Assessment (RVA) can support the state's vulnerability assessment and, as applicable, adaptation strategy.
- Hold a region-wide webinar on the synergy between the RVA and the state's VA.
- At NEAFWA 2012 Annual Meeting, host a workshop on informing state-based "on the ground" demonstration projects with detail from the RVA.
- Brief NEAFWA technical committee chairs on the impact that the RVA will have on their subject matter of interest.
- Host an NGO oriented, region-wide workshop to show case what each northeastern state is doing to advance the RVA and how NGO's can support the work.
- How the RVA, state VAs and state adaptation strategies can provide the foundation for a Regional Adaptation Strategy
- Advise NEAFWA on how the RVA can inform the RCN process.
- Distribute the RVA to other regional habitat conservation entities throughout the country.