

North Atlantic Landscape Conservation Cooperative

October 7, 2013

Dr. Hector Galbraith
National Wildlife Federation
Dummerston, VT 05301

Dear Hector,

I am writing to provide you with the results of the peer review of the report *The Vulnerabilities of Northeastern Fish and Wildlife Habitats to Sea Level Rise* and to ask you to thoroughly consider these reviews and make appropriate revisions in preparing a final version of the report.

We obtained independent reviews from three experts in the fields addressed in the report: Donna Bilkovic of Virginia Institute of Marine Science, Robert Buchsbaum of Massachusetts Audubon Society, and Donald Cahoon of USGS Patuxent Wildlife Research Center. In addition to requesting written comments (attached), we held a conference call during which the reviewers could collectively discuss their comments. I am providing a summary of the major issues discussed during the call. Please consider these issues in addition to all individual written comments in revising the document.

Important issues and recommendations that the reviewers collectively agreed upon are the following:

- 1) The reviewers believed that the report was more a review of the vulnerability of coastal National Wildlife Refuges to sea level rise than a review of the North Atlantic coast generally. They were concerned that this scope was too narrow because it is inaccurate to assume that refuges are representative of coastal habitats collectively. The limitations of this scope should be clearly stated and if possible expanded to incorporate other areas.
- 2) The reviewers were concerned about the reliance on SLAMM modeling for assessing the vulnerability of coastal National Wildlife Refuges. The most problematic issue was that the report indicated that 13 of the 28 NWRs reviewed used elevation data in SLAMM that was accurate only to approximately 3-6 m whereas sea level rise was projected to be 1-2 m. The reviewers therefore viewed the results of SLAMM to be completely unreliable for such sites. They recommended that results be removed from the report in any cases where the uncertainty in elevation and model outputs was greater than the projected magnitude of sea level rise. Regarding SLAMM more generally, the reviewers acknowledged it has advantages, namely in its capacity for spatial predictions, but they felt that uncertainties and alternatives that can complement SLAMM should be more thoroughly described.

- 3) The reviewers questioned why the report focused on a single species, Piping Plover. The reviewers noted that a number of species of fish and wildlife using coastal habitats are considered vulnerable to sea-level rise and that more than one species and taxonomic group should be discussed.
- 4) The reviewers recommended that seemingly contradictory results, such as nearby refuges showing opposite habitat trends, be better explained. They noted that differences in geomorphic setting, e.g. open coasts vs. back barrier lagoons, make a large difference in responses to sea-level rise.
- 5) The reviewers recommended the addition of figures illustrating sea-level rise effects, and revisions to the existing figures and tables for greater clarity, especially considering that the audience is intended to be conservation managers rather than practicing scientists.

The reviewers provided a number of references pertinent to their comments and that could be used in revising the report, some of which were published after your draft report was completed, such as *Updating Maryland's Sea-level Rise Projections* (2013). I am forwarding these references to you.

We request that you complete the revisions by November 8, 2013. Please let us know if this deadline is feasible for you. Thank you very much for your consideration of the peer review comments and please let me know if you have any questions or concerns.

Sincerely,



Scott Schwenk
North Atlantic LCC
413-253-8647
william_schwenk@fws.gov

Attachments

- Reviewer #1 response to charge to reviewers
- Reviewer #2 response to charge to reviewers
- Reviewer #3 response to charge to reviewers