Dear Ms. Brighton,

I am writing on behalf of Lower Hudson Group of Sierra Club, which represents over 5,500 members in Rockland, Westchester, and Putnam Counties, all on the Hudson River. As the leader of Rockland Sierra Club, I have personally worked on climate change policy issues for about 15 years. I’m also an appointed member of the Rockland County Water Task Force. These are the second set of comments submitted on behalf of Lower Hudson Group of Sierra Club, in addition to comments submitted for the August 20 deadline.

**TRANSPARENCY & PUBLIC NOTICE**

The final project selected by the Army Corps of Engineers (ACOE) will have a major impact on New York City and on the entire region. In many ways this project is on a new frontier, confronting now unavoidable and possibly devastating impacts of climate change on the largest city in the U.S. and on the American economy.

Given the magnitude of the problems and the proposals, it is difficult to understand why so little information about the plans has been released.

We make the following amended requests in order to give these proposals the review commensurate with the importance of the final project:

- All comments should be publicly posted, as was done by the U.S. Coast Guard with comments on the proposal for oil barge anchorages on the Hudson River.
- All studies on which decisions are based should be publicly posted.
• Notices should be sent in sufficient time for dissemination, should be sent to all commenters, and should be written in plain English that can be understood by the general public.
• All public hearings should be publicized with sufficient notice for dissemination and should be scheduled throughout the affected and adjacent area so that excessive travel is not required.

ECOSYSTEM SERVICES SHOULD BE INCLUDED IN TIER I ANALYSIS

It is our understanding that Tier I of the review process will be based on a cost/benefit analysis that will not factor in ecosystem services. The Tier I review is critical, however, as it will determine which options will be retained for further analysis.

We therefore strongly suggest that ecosystem services should be factored into all calculations, including in Tier I. The costs and benefits of maintaining a healthy ecosystem are every bit as tangible as real estate property values. In fact, among the many important ecosystem services that should be factored into Tier I analysis is the protection afforded by marshes and other shoreline natural features from future storms, protection that could be jeopardized by some of the current ACOE proposals.

COST BENEFIT ANALYSIS SHOULD INCLUDE COST OF ANTICIPATED LATER MODIFICATIONS

ACOE project engineers have stated that, based on projections of sea level rise, the in-water barriers will not be sufficient over time to protect the region from future storms and sea level rise, possibly by the end of the century. The ACOE engineers foresee that it will be necessary to add on further protections in the form of land based sea walls and natural features. Some scientists project that sea level rise will render the harbor barriers ineffective quite a bit earlier, possibly by 2050 or 2060.

We therefore suggest that the cost of these further adaptations be added into the cost analysis for those options that will not afford adequate protection against sea level rise.

NEW STUDIES AND MODELING SHOULD BE COMMISSIONED WHERE NEEDED

The ACOE has stated that the analysis will be based on already existing science. However, in many cases there are no previous studies that model impacts within this specific environment. The implications of the final project are too great for the false economies of avoiding new studies.
We urge the ACOE to commission new studies wherever needed, as well as to draw on the latest work of the most authoritative sources, such as the National Oceanic and Atmospheric Administration and the UN Intergovernmental Panel on Climate Change. We also ask that the studies on which decisions are based be publicly posted.

OPTION #5 – SHORELINE OPTION – SHOULD BE RETAINED FOR FURTHER ANALYSIS
While barriers across the harbor could afford short-term protection, those barriers will ultimately not protect from sea level rise. Storm gates will need to be closed more frequently over time, while intensified storms will result in back flooding, behind the barriers.

The question, then, is whether we will jeopardize the ecology of the rivers in order to buy ourselves only a few decades, rather than beginning to build shoreline based features now, while also planning for strategic relocation.

We ask that option 5 be retained for further analysis for the following reasons:

- Harbor barriers protect from storm surge, but not from sea level rise. Over time it will be necessary, according to ACOE project engineers, to add on shoreline measures such as sea walls and nature based features.
- Harbor barriers would jeopardize the health of the Hudson and other rivers. The barriers would, in fact, jeopardize the marshes and other shoreline natural features that can help to protect communities.
- Shoreline features are the only options that may address sea level rise adequately. The ACOE acknowledges that ultimately shoreline features will be needed.
- Shoreline features can be built incrementally. That means that the most vulnerable areas can be protected first and the costs can be spread over time.
- Shoreline features are adaptable. If built for future modification, it should be possible to modify sea walls over time, as sea level rises.
- Shoreline features are aligned with NYS DEC’s Sustainable Shorelines guidelines and would help to support natural features that protect shoreline communities.

COORDINATE CRITICAL PLANNING WITH OTHER FEDERAL & STATE AGENCIES
The ACOE projects should be planned to offer long-term protection as much as possible. But it would be a shame if this protection enabled or even encouraged development to continue in the wrong places at enormous ongoing taxpayer expense, while ultimately leaving such development far more vulnerable as sea level rise continues and storms become increasingly severe.
We therefore ask that the ACOE work with other federal and state agencies, such as FEMA, New York Department of Environmental Conservation, New Jersey Department of Environmental Protection, and New York City and other local planning agencies, to incorporate projections for sea level rise and more intense storms into planning guidelines. Areas that are identified in this project as particularly vulnerable to future flooding should be restricted from continued development.

LOOKING FORWARD

The publication of the most recent UN IPCC Climate Report has brought home the message only too clearly that climate change is accelerating and could spiral out of control by mid-century. We cannot afford to use massive resources and lose critical time on projects with a short-term life span. A false sense of security offered by short-term protection could leave us suddenly at 2040 or 2045 even more vulnerable – and without the resources or time to protect the region.

We must rethink the most vulnerable areas of the city and must not only protect but also plan in a way that is adapted to the new reality of climate change.

If we hope to avoid climate change that will go beyond what we can adapt to, we cannot focus on adaptation alone. While moving ahead on its important work, we hope the ACOE will also make clear to policy makers the urgency of action to quickly transition to renewable energy, with the goal of avoiding the worst of climate change.

Sincerely,

Peggy Kurtz
On behalf of Lower Hudson Group of Sierra Club