



November 5, 2018

Sent VIA E-Mail NYNJHarbor.TribStudy@usace.army.mil

Nancy Brighton
Room 2151
US Army Corps of Engineers, New York District
26 Federal Plaza
New York, New York 10278

Scoping Comments for the NY/NJ Harbor and Tributaries Focus Area Feasibility Study

Dear Ms. Brighton-

The Sierra Club Atlantic Chapter appreciates the opportunity to comment on scoping for the New York/New Jersey Harbor and Tributaries Focus Area Feasibility Study. We are a volunteer led environmental advocacy organization of 54,000 members dedicated to protecting to New York's air, water and remaining wild places. While the Sierra Club has an innate interest in protecting the health and safety of our communities from climate change, the long term ecological integrity Hudson River Estuary and Long Island and New Jersey Shores is of particular concern to our membership as the Army Corps of Engineers weighs options for how to safeguard coastal New York's built infrastructure from sea level rise and increasingly severe storm surges.

Four of the six conceptual plans under consideration by the Corps represent a scale of unprecedented in-water development within the NY Bight and Hudson River Estuary that demands intense public scrutiny and discussion. The sheer magnitude of some of the proposals, stretching from Sandy Hook, N.J. to Breezy Point, N.Y. with major barriers and gates on interior waterways could have major unintended consequences upon the Hudson River estuary and beyond. We appreciate that the once accelerated pace of decision making has appeared to have slowed down enough for the public to catch up. While we understand that the 6 conceptual plans will not be winnowed down into one "tentatively selected plan" until the spring of 2020, we ask that the ACOE provides much needed information and reports on each option in the interim. In approaching the reports and scoping for the 6 options, the Sierra Club requests that the ACOE adopt a set of core principles to help guide the process:

Maintaining that ecosystem services and habitat integrity should be a priority outcome of any proposal.

The proposed sea walls, gates and barriers (Alternatives 2, 3A, 3B and 4) designed to block storm surges could also alter fish migration and the natural flow of the Hudson River over time, irreversibly compromising an irreplaceable ecosystem and the fisheries, recreation and tourism

industries that rely upon the health of that system. Constrained water flow could impede the natural flushing of pollutants from the river system and degrade the quality of the drinking water for more than 100,000 Hudson Valley residents. Barriers could also prevent seasonal storm surge scouring and sedimentation of coastal wetlands that is an essential component to the rejuvenation of these essential natural systems. Intact and healthy coastal wetlands themselves provide invaluable storm surge protection in a multidimensional way that monolithic sea barriers cannot.

Part of the ACOE's responsibility in this substantial review process is to determine a benefit-to-cost-ratio in all the development plans for sea level rise mitigation. The conventional interpretation of this charge is whether the tens of billions of dollars invested in barriers will see greater savings from the buildings, roads and infrastructure spared from rising oceans and increasingly severe storms. But this analysis would not be complete if no specific costs were to be attributed to the loss of sturgeon, shad, striped bass and hundreds of other marine species; the degradation of clean drinking water; the accelerated sedimentation of navigation channels, or the loss of storm surge absorbing wetlands. The ACOE must, throughout its work, including Tier I, and other stages of the environmental review, acknowledge and factor in the value of ecosystem services.

Any storm surge / sea level rise mitigation plan should take into account short-term, mid-term and long-term effects of any action.

It is likely that in the short term, large barrier projects in the water eliminate the need for aggressive land use changes to metropolitan New York and New Jersey's built human environment – thus making them attractive alternatives to difficult choices in how to transition buildings and infrastructure to higher ground. But it is also clear that the proposed sea walls, gates and barriers designed to block storm surges will be effective for only a finite amount of time. As global sea levels rise, gates will have to be closed more frequently and flooding from a barricaded Hudson River will eventually nullify the effectiveness of storm surge containment walls as waters rise from within. In its careful analysis of the 6 alternatives the ACOE must consider the long-term effects of its mitigative actions and cannot be satisfied with losing the core ecological value of the Hudson River for a few years of relief from flooding.

The Sierra Club is equally concerned that tens of billions of dollars could be spent on barriers whose long-term completion and construction may coincide with earlier than expected obsolescence. Public funding for sea level rise will be extremely costly but also limited and investments in expensive short-term solutions could vanquish funding for what really needs to be accomplished over the long term. The ACOE needs to view all the plans to address sea level rise through the frame of a one-hundred-year outlook – even as it seeks to address immediate issues with flooding and storm preparedness. The long view time frame has to be an integral component to how the ACOE approaches any “benefit to cost ratio” analysis on the projects under review.

The review of proposals should incorporate sound land use planning

As the ACOE has acknowledged throughout its preliminary documents, sea level rise is inevitable and none of the alternatives presented will completely mitigate the current built environment from persistent flooding over the long term. In consideration of the *New York/New*

Jersey Harbor and Tributaries Focus Area Feasibility Study special attention must be made to how the Corps delineates existing infrastructure that can and must be saved, areas that must be abandoned for higher ground and most importantly, for the short term, areas that should be restricted from development now due to future flooding potential. As this process unfolds, the ACOE has to be consistent within its powers to reject permits for current projects seeking to build in areas vulnerable to sea level rise. Equally important, the Corps should not design and permit sheltered havens to new development in low lying areas through various sea wall configurations when in the mid and long term those areas will be vulnerable to flooding regardless of mitigation. In addition, proper consideration must be given to areas outside of mitigation barriers. Hardened sea walls and gates deflect the power of storm surges to the edges of its bulwarks – protecting the central metropolitan area but potentially focusing even more dangerous and damaging surf and currents to the Long Island and New Jersey shores, and within the interior of the estuary – communities with lesser real estate value or the financial means to fund their own adaptation programs.

Analysis for the feasibility study must be based upon the best and most up to date science and information

Billions of dollars and ecosystems as we know them will be saved or lost by the quality of the data that informs the engineering schemes and protective policies adopted by the *New York/New Jersey Harbor and Tributaries Focus Area Feasibility Study*. The ACOE must embrace the latest reports and findings from the National Oceanic and Atmospheric Administration, the Intergovernmental Panel on Climate Change, our federal and state environmental agencies and our academic research institutions and integrate that work into your deliberations and findings. Through analysis and modeling there will be inevitable gaps in understanding the true impacts of barriers, sea gates and on shore mitigations. Where there are gaps in knowledge, ACOE must continue to fund studies to find answers and rely on the best science available.

Public Notice and Information should be understandable and accessible to the general public

This massive undertaking to help adapt the NY/NJ metropolitan area to sea level rise and the catastrophic storms that come with climate change will require significant public engagement and input if any viable plan is to be mobilized. But in order to be successful the ACOE must provide adequate multilingual public notice with future public information opportunities, broaden the scope of outreach to upper Hudson River communities and those representing coastline communities just outside of the barrier areas.

The Sierra Club also urges the ACOE to employ an enhanced public participation protocol so that environmental justice communities and communities of color have every opportunity to engage in the process and provide valuable information that ensures they are not left out of the benefits resulting from the *New York/New Jersey Harbor and Tributaries Focus Area Feasibility Study*.

In our review of the 6 alternative plans thus far, the Sierra Club would encourage the ACOE, at the very least, to preserve option 5 as it pursues a “tentatively selected plan” to mitigate sea level rise. Strategies such as preserving and enhancing natural infrastructure like dunes and marshlands, returning vulnerable, low-lying development areas to more natural states through property buyouts and ecological restoration, elevating structures, building local on-land

pop up flood barriers and planned retreats from flood prone areas represent the most practical long term solutions. The impacts of climate change and sea level rise will continue to increase in severity over the long term. Planned relocation of infrastructure and development away from coastal areas will ultimately be the most effective means of balancing public safety, resources and ecological health. We hope that an exhaustive analysis by the ACOE will confirm our belief in the co-benefits of multifaceted, nature based natural infrastructure over massive, in water barriers.

Respectfully submitted,

A handwritten signature in black ink that reads "Roger Downs". The signature is written in a cursive style with a large, prominent initial "R".

Roger Downs, Conservation Director
Sierra Club Atlantic Chapter
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