

Storm surge barriers threaten the very life of the Hudson River

The U.S. Army Corps of Engineers is considering several options for coastal storm protections in our region, and some of these options would have catastrophic consequences for the Hudson and New York Harbor. Specifically, storm surge barriers – giant ocean gates – would choke off tidal flow and the migration of fish – damaging the life of the Hudson River Estuary forever.

This is a critical time to speak out and prevent a short-sighted decision.

In response to Superstorm Sandy, the U.S. Army Corps of Engineers (USACE) initiated **the NY/NJ Harbor & Tributaries (NYNJHAT) Coastal Storm Risk Management Feasibility Study,** affecting more than 2,150 square miles, 25 NY and NJ counties and 16 million people. Communities along the shorelines of NYC, Long Island, NY Harbor, northern NJ, the Hudson River up to Troy, and western Connecticut are affected. The goal is to reduce the risk of coastal storm damage to communities and critical infrastructure. The Corps has offered six alternative conceptual designs:

Alternative 1: "No Action," meaning no new action by the Corps. Instead the region would move forward with numerous existing flood control projects already in the works.

Alternative 2: Build two in-water barriers, from Sandy Hook to Breezy Point (5 miles) and across Long Island Sound near Throgs Neck Bridge (see map at right).

Alternative 3A: Build in-water barriers in the Arthur Kill, Jamaica Bay, Verrazano Narrows, Pelham Bay, and Throgs Neck, and a levee or berm system along Brighton Beach and the Rockaways.

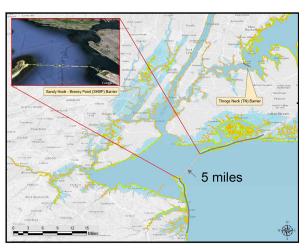
Alternative 3B: Build in-water barriers in the Arthur Kill,

Kill Van Kull, the Gowanus Canal, Pelham Bay, Throgs Neck, Newtown Creek, and Jamaica Bay. Build a levee and berm system and shoreline measures in East Harlem, the NJ upper bay and Hudson River, and the West Side of Manhattan.

Alternative 4: Build in-water barriers in Pelham Bay, Jamaica Bay, Newtown Creek, the Gowanus Canal, and the Hackensack River. Build shoreline measures in East Harlem, the NJ Upper Bay and Hudson River, and the West Side of Manhattan.

Alternative 5: Build only shoreline measures along the perimeter of coastal locations (dunes, berms and levees). Note that these shoreline protections are in addition to the wide array of shoreline flood control projects already planned or under way which are shown in Alternative 1.

Several of these plans – specifically, the ones including giant in-water barriers throughout NY Harbor (Alternatives 2, 3A, 3B & 4) – threaten the very existence of the Hudson as a living river. These in-water barriers would disrupt the migrations of the river's iconic species (striped bass, Atlantic



sturgeon, herring, shad, eel) and restrict tidal exchange, essential in numerous ways: from moving sediment and flushing contaminants from the Harbor, to regulating nutrient distribution and adequate dissolved oxygen.

In-water barriers would not protect against flooding from sea-level rise – only from storms. With gates that must be open for ships to pass, the in-water barriers would do nothing against sea-level rise. By contrast, shoreline measures (Alternatives 5 and 1 combined) can protect against flooding from both storms and sea level rise, and can be more easily heightened as projections evolve.

Deflection or induced flooding in nearby unprotected shorelines may be a fatal flaw to these alternatives. Areas such as the Jersey shore, the south shore of Long Island, western Long Island Sound, and the Lower Bay of New York Harbor would be at risk.

Back flooding: In-water barriers could hold back rainstorm flood waters, as we experienced during storms like Irene and Lee in 2011, from leaving the Hudson. This could cause fresh water flooding inland of the barriers.

Potential costs: USACE estimates \$30 billion to \$50 billion to build Alternative 2 in-water barriers, with annual maintenance likely costing billions, without addressing flooding from sea level rise. Alternative 5 (shoreline measures like dunes, dikes, floodwalls, and levees) is estimated at \$2 billion to \$4 billion and addresses both storm surge and sea level rise, while leaving the river to flow freely.

What is the status of the study? USACE intends to narrow the six options down to one or two by this fall (2018). The one or two "tentatively selected plan(s)" will be the subject of a Draft Feasibility Report and Environmental Impact Statement this fall. USACE has opened a public comment period, ending September 20, to consider the "scope" of issues it should study in that preliminary environmental review. This short time frame and limited number of meetings is inadequate given the enormous scale of the project.

Non-federal sponsors of the study include New York State, represented by the NYS Department of Environmental Conservation (DEC) and New Jersey, represented by the NJ Department of Environmental Protection. **NY and NJ may reject any construction alternative.**

Elected officials can take action and make a difference:

- 1. Send a letter to Basil Seggos, Commissioner, NYSDEC; Bryce Wisemiller, NY District Project Manager, U.S. Army Corps of Engineers; and Nancy J. Brighton, Chief, Watershed Section, Environmental Analysis Branch, Planning Division, U.S. Army Corps of Engineers:
 - a. Insist that any coastal protection project address the risk of flooding from both storm surge and long term sea level rise.
 - b. Request more information for the public, including the studies the USACE is using to evaluate alternatives.
 - c. Request additional public scoping meetings across New York City, Long Island, and throughout the Hudson Valley.
- 2. Submit comments, and urge your constituents to do the same, to USACE (NYNJHarbor.TribStudy@usace.army.mil) by September 20. (See template at link below.)
- 3. Adopt a municipal resolution. (See model language at link below.)

Riverkeeper information page: <u>Riverkeeper.org/barriers</u>

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