RIVERKEEPER
NY's clean water advocate

September 21, 2017

Nancy M Baker
NYSDEC Region 4 Headquarters
1130 N Westcott Rd
Schenectady, NY 12306
R4DEP@dec.ny.gov

Dear Ms. Baker,

On behalf of Riverkeeper, Inc., please accept these comments regarding the draft Article 15 Title 5 and Section 401 permits related to BASF Corporation's proposal to install approximately 520 feet of steel bulkhead along the Hudson River at 36 Riverside Avenue, Rensselaer, NY.

Riverkeeper respectfully requests modification of these permits to require "soft" habitat-friendly shoreline modifications, rather than "hard" sheet pile bulkhead.

Based on observations made during monthly patrols of the Hudson River, we know this shoreline to be sheet-pile at this time, in poor repair, with no recent historic or present water-dependent uses. Depths immediately alongside and in the approach to this property are quite shallow and unsuitable for even moderate draft vessels. As such, the Department should require habitat-friendly shorelines. A steel bulkhead provides virtually no habitat value; whereas, other shoreline modifications can enhance or maintain habitat for the diverse life in the Hudson River Estuary.

The case for shoreline softening is a stated priority of the Department of Environmental Conservation (DEC) in "The Hudson River Estuary Habitat Restoration Plan" ("Estuary Restoration Plan"):

> Despite recent improvements in the Hudson, there remains a profound need for habitat restoration. Between 1800 and 1972, shorelines and wetlands were extensively altered, relocated and eliminated along the 152-mile length of the estuary. The river channel has been narrowed and straightened between Catskill and Troy, and over a third of the surface area of the river in this same reach—over 3,300 acres—was filled with sediments dredged from the federal navigation channel… As a result of these and other factors, many populations of native fish, wildlife, and plant species have declined, and several have been listed as threatened or endangered. While we cannot restore the river to its original condition, we can take action to improve and restore remaining habitats,

> while also continuing the Hudson's current function as a navigable river and a transportation corridor.[1]

Specifically, one of five "restoration actions" identified in the Estuary Restoration Plan is to "promote and implement use of ecologically enhanced shoreline treatments where shoreline stabilization is required to protect property or other economic assets." Shorelines are one of four priority habitats identified for restoration:

> A significant amount of natural shoreline has been eliminated or altered over the past 200 years. Comparisons of modern and historic maps have estimated that 71 miles of shoreline in the upper estuary were eliminated when shallows and backwaters were filled during construction of the federal navigation channel. In addition, many shorelines in the Hudson have been straightened and hardened to protect property from erosion or to create platforms for industry, transportation or cultural uses. An inventory of shoreline types by NYSDEC found that nearly half of the shoreline from the Tappan Zee Bridge to the Troy dam is engineered shore, meaning it has been altered by bulkheads, riprap, dikes, or other structures. Most of the engineered shore is associated with: railroad lines; dikes built in the upper estuary during the late 19th and early 20th century; and development of docks or shoreline erosion controls for riverfront communities and properties.

"Enhancing" shoreline habitat is a specific goal in the Estuary Restoration Plan for the stretch of the Hudson River Estuary in Rensselaer County, where this project is proposed.

Loss of shallow habitat, including at shorelines, is of particularly concern for specific high priority "signature" species of the Hudson River Estuary. American shad populations have crashed, and despite prohibitions on fishing dating to 2009, populations have not demonstrated signs of recovery. The DEC's "Hudson River American Shad An Ecosystem-Based Plan for Recovery" ("Shad Recovery Plan") notes that historic loss of "spawning and nursery habitat" contributed to declines in populations in the past, and "may influence the rate of stock recovery."[2]

One of the goals of the Shad Recovery Plan is to "characterize and restore critical spawning and nursery habitat":

> Approximately 1,420 hectares of upriver shallow water habitat were lost through dredge and fill operations during construction of the federal navigation channel in the early and mid 1900s (Miller and Ladd 2004). Much of this area was potential shad spawning and nursery habitat. The identification, characterization, and restoration of lost habitat are important long-term components of Hudson River shad restoration.

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[1] DEC, Hudson River Estuary Program, "The Hudson River Estuary Habitat Restoration Plan," 2013. Available at: http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrhrp.pdf

[2] DEC, "Hudson River American Shad An Ecosystem-Based Plan for Recovery Revised: January 2010" Available at: http://www.dec.ny.gov/docs/remediation_hudson_pdf/shadrecoveryplan.pdf

As stated in the Estuary Restoration Plan, several alternatives have been identified by the Sustainable Shorelines project, via “a science-based effort to identify shoreline treatments that protect property while providing habitat for fish, birds and invertebrates that live in natural shoreline habitats.”[3]

These alternatives should be considered for the BASF site.

Thank you for your consideration of these comments. If I can provide any other information about these comments, please contact me at dshapley@riverkeeper.org or 914-478-4501 x226.

Sincerely,

Water Quality Program Director

[3] Hudson River National Estuarine Research Reserve, “Sustainable Shorelines.” Available at https://www.hrnerr.org/hudson-river-sustainable-shorelines/