COLUMBIA LAW SCHOOL

SABIN CENTER FOR CLIMATE CHANGE LAW

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Filed Via Electronic Mail

RE: Kingston Waterfront Brownfield Opportunity Area Plan – Positive Declaration

Mr. Swanzey:

The Sabin Center for Climate Change Law ("SCCCL")[1] submits these comments to the City of Kingston on the scope of environmental review for the proposed Kingston Waterfront Brownfield Opportunity Area Plan (the "Project"). SCCCL focuses on a critical issue not identified in Kingston's draft scoping document – the need to consider future climate change impacts when designing and implementing the Project. Since much of the Project site is directly adjacent to the Hudson River, Kingston should evaluate whether sea level rise, and an associated increase in flooding and storm surges, will impact the proposed redevelopment projects and whether they will compromise brownfield remediation measures, causing new releases of and exposure to contaminants present in sediments at the Project site.

SEQRA and Climate Change

Pursuant to its obligations under the State Environmental Quality Review Act ("SEQRA"), Kingston must consider sea level rise and related coastal processes in its environmental impact statement ("EIS") for the Project. SEQRA's implementing regulations require that EISs consider future baseline conditions at project sites.[2] When defining an appropriate threshold against which to compare projected environmental impacts, future environmental conditions due to climate change must be incorporated. The New York Department of Environmental Conservation ("DEC"), the state agency charged with issuing regulations under SEQRA, also adopted a policy on climate change adaptation in 2010 ("2010 DEC Policy"). The 2010 DEC Policy directs agency staff to "incorporate climate change adaptation strategies" into DEC operations.[3]

Moreover, Governor Cuomo recently signed the "Community Risk and Resiliency Act" ("CRRA"), a landmark adaptation bill that amends certain state statutes to reflect greater

[1] The Sabin Center for Climate Change Law at Columbia Law School develops legal techniques to fight climate change, trains law students and lawyers in their use, and provides the public with up-to-date resources on key topics in climate law and regulation. SCCCL works closely with the scientists at Columbia University's Earth Institute and with governmental, nongovernmental, and academic organizations. *See* http://web.law.columbia.edu/climate-change. Please contact SCCCL for assistance locating any sources.
[2] 6 NYCRR § 617.9.
[3] DEC, Climate Change and DEC Action (2010), *available at* http://www.dec.ny.gov/docs/administration_pdf/commisclimchpolicy.pdf.

awareness of and preparedness for climate change-associated risks.[4] The CRRA requires state agencies to consider future physical climate risks caused by storm surges, sea level rise, or flooding in certain permitting, funding, and regulatory decisions.[5] The CRRA amends the Smart Growth Public Infrastructure Policy Act ("Smart Growth Act") to require state agencies to ensure that public infrastructure projects are consistent with the goal of "mitigat[ing] future physical climate risk due to sea level rise, and/or storm surges and/or flooding, based on available data predicting the likelihood of future extreme weather events, including hazard risk analysis data if applicable."[6]

Sea Level Rise

As oceans absorb heat and as glaciers and ice sheets melt, global sea levels are rising at increasing rates.[7] In the next several decades, storm surges and high tides will combine with sea level rise and, in some locations, land subsidence to increase flooding in many regions, threatening the communities and industries along our coastlines.[8] In addition to threatening above ground infrastructure, climate change poses a major risk to contaminated sediment sites.[9] Flooding, storms, and other major events can disrupt sediment beds, thereby reducing the effectiveness of certain control methods, such as monitored natural recovery and in-situ capping.[10]

CRRA requires DEC to adopt official sea level rise projections by January 1, 2016.[11] Meanwhile, many sources provide current and credible data regarding sea level rise and its potential consequences.[12] Most recently, a 2014 Report released by the New York State Energy Research and Development Authority indicates that sea level rise on the Hudson River is expected to increase by as much as 71 inches by 2100.[13] Using these and other sources, Kingston

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[4] 2014 Sess. Law News of N.Y. Ch. 355 (S. 6617-B) [hereinafter "CRRA"].
[5] *Id.*
[6] *Id.*; N.Y. Envtl. Conserv. Law § 6-0107.
[7] Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., 2014: Climate Change Impacts in the United States: The Third National Climate Assessment. U.S. Global Change Research Program, 841 pp. doi:10.7930/J0Z31WJ2 [hereinafter "National Climate Assessment"], at 44, *available at* http://nca2014.globalchange.gov.
[8] National Climate Assessment, at 45; Gordon, Kate, 2014: Risky Business: The Economic Risks of Climate Change in the United States. The Risky Business Project [hereinafter "Risky Business"], at 20, *available at* http://riskybusiness.org/.
[9] Katrina Fischer Kuh, Climate Change and CERCLA Remedies: Adaptation Strategies for Contaminated Sediment Sites, 2 Seattle J. Envtl. L. 61, 63 (2012).
[10] *Id.* at 65-66, 71.
[11] N.Y. Envtl. Conserv. Law § 3-0319.
[12] *See e.g.*, Intergovernmental Panel on Climate Change ("IPCC"), Chapter 2.2.3 Ocean, cryosphere and sea level. In Climate Change 2014 Synthesis Report, Fifth Assessment Report, at 65, *available at* http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_LONGERREPORT_Corr2.pdf; National Climate Assessment, at 44-45, 371-95; Climate Central, Surging Seas: Sea Level Rise Analysis, *available at* http://sealevel.climatecentral.org; Climate Central, Sea level rise and coastal flood risk: Summary for Ulster County, NY, *available at* http://ssrf.climatecentral.org.s3-website-us-east-1.amazonaws.com/Buffer2/states/NY/downloads/pdf_reports/County/NY_Ulster_County-report.pdf; Risky Business, *supra* note 8; Metropolitan East Coast Assessment, Assessment Report: Coasts (2000), *available at* http://metroeast_climate.ciesin.columbia.edu/reports/coasts.pdf.
[13] Horton, R., D. Bader, C. Rosenzweig, A. DeGaetano, and W.Solecki. 2014. Climate Change in New York State: Updating the 2011 ClimAID Climate Risk Information. New York State Energy Research and Development

should assess the projected range of sea level rise and storm surge throughout the life of the Project and determine whether the Project adequately protects against flooding and prevents exposure of contaminated sediments. To avoid underestimating these risks, Kingston should base its determination on the high end of the projected sea level rise range. Moreover, Kingston should exhibit a low tolerance for risk in light of the potential for dangerous pollutants to be present at the Project site.

Further, Kingston should consider the risks of more frequent and severe flooding. These risks are not fully reflected by static sea level rise data. Increasingly intense storm surges are a foreseeable risk along the Hudson River, and should be considered in connection with the Project. Particularly relevant is the 2014 National Climate Assessment's observation that a sea level rise of two feet, without any changes in storms, would more than triple the frequency of dangerous coastal flooding throughout most of the Northeast.[14]

Finally, the design of the Kingston Waterfront Brownfield Opportunity Area should incorporate an additional margin of safety, known as "freeboard," to account for unanticipated risk factors. The inclusion of freeboard in flood planning is intended to protect against risks that can contribute to flood heights, such as waves and the effect of development on ground water absorption.[15] These risks are separate from and additional to the risks of sea level rise and storm surge, and should be evaluated as such in connection with the Project.

In sum, due to the Project site's location on the Hudson River, sea level rise, increased flooding, and rising groundwater are risks that should be considered in the design and implementation of the Kingston Waterfront Brownfield Opportunity Area Plan.

Thank you for the opportunity to submit scoping comments on Kingston's proposed environmental impact statement for its Kingston Waterfront Brownfield Opportunity Area Plan. Please feel free to contact SCCCL with any questions.

Sincerely,

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Authority (NYSERDA), Albany, New York, at 10, *available at* http://www.nyserda.ny.gov/-/media/Files/Publications/Research/Environmental/ClimAID/2014-ClimAid-Report.pdf (high estimate (90th percentile) projection for Troy Dam).

[14] National Climate Assessment, at 374.

[15] *See* New York City, N.Y., Rules, Tit. 1, § 3606-04 (citing FEMA's definition of freeboard, 44 C.F.R. § 59.1); American Society of Civil Engineers, Highlights of ASCE 24-05 Flood Resistant Design and Construction (2010), *available at* http://www.fema.gov/media-library/assets/documents/14983; FEMA Hurricane Sandy Recovery Advisories RA2: Reducing Flood Effects in Critical Facilities (April 2013) and RA5: Designing For Flood Levels above the BFE After Hurricane Sandy (April 2013), *available at* http://www.fema.gov/media-library/assets/documents/30966.

Enclosures:

Climate Central, Sea level rise and coastal flood risk: Summary for Ulster County, NY
NYSERDA, Updating the 2011 ClimAid Climate Risk Information: Sea Level Rise Projections