



# COLUMBIA LAW SCHOOL

**Michael B. Gerrard**

*Andrew Sabin Professor of Professional Practice  
Director, Sabin Center for Climate Change Law  
Associate Chair, Faculty of the Earth Institute*

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Kathryn Lamond  
The Port Authority of NY & NJ  
4 World Trade Center  
150 Greenwich Street, 18th Floor  
New York, NY 10007

Via e-mail: JFKEA@PANYNJ.GOV

**Re: JFK Runway 13L-31R**

Dear Ms. Lamond,

This comment on the Draft Environmental Assessment (“EA”) for the Reconstruction of Runway 13L-31R and Associated Taxiways Project at John F. Kennedy International Airport (“JFK”) is submitted on behalf of the Sabin Center for Climate Change Law of Columbia Law School.

We recommend that the EA: (1) more thoroughly assess the impact that rising sea levels and consequent flooding will have on the newly reconstructed runway infrastructure, (2) set forth more detailed plans to protect against this flooding in the future, and (3) disclose applicable New York State permitting requirements, especially as they relate to work in the water, and set forth a process for complying with them.

The EA has only one paragraph discussing sea level rise; it refers to Appendix F for further details on the Port Authority’s evaluation of the relevant risks. In the EA, the Port Authority concludes that the proposed reconstruction project would be above the “the 1% annual chance flood zone” in the years of 2020, 2050, 2080, and 2100, and proposes to mitigate flooding risks by creating a system of tide gates and raising perimeter berms.<sup>1</sup>

Various reports from outside sources have warned of JFK Airport’s vulnerability to sea level rise caused by climate change, which necessitates decisive action to protect the airport’s runways and other structures from extensive flooding damage. The Regional Plan Association (“RPA”), for example, stated in a 2016 report that JFK “will need to be hardened for the more severe future storm surges.”<sup>2</sup> A 2018 update report from RPA stated, “While not impacted by three feet of sea level rise and only marginally by six feet, JFK Airport is still vulnerable to

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<sup>1</sup> THE PORT AUTHORITY OF NY & NJ, RECONSTRUCTION OF RUNWAY 13L-31R AND ASSOCIATED TAXIWAYS PROJECT, JOHN F. KENNEDY INTERNATIONAL AIRPORT, DRAFT ENVIRONMENTAL ASSESSMENT (Sept. 2018) at 3-28.

<sup>2</sup> Regional Plan Ass’n, *Under Water: How Sea Level Rise Threatens the Tri-State Region*, 4 (December 2016), available at <http://library.rpa.org/pdf/RPA-Under-Water-How-Sea-Level-Rise-Threatens-the-Tri-State-Region.pdf>.

flooding from what are expected to be more frequent and higher intensity storms.”<sup>3</sup> As such, “investments in storm surge mitigation solutions should be employed as part of the airport’s redevelopment,”<sup>4</sup> and JFK “will need to be hardened to increase its ability to cope with more frequent storm surges.”<sup>5</sup>

Climate Central has also reported on JFK’s vulnerability to storm surge, focusing on the economic consequences of this vulnerability. In a 2013 publication, Climate Central highlighted that sea level rise and flooding can lead to “more delays, potentially costing billions of dollars in the years ahead from lost revenue and storm cleanup operations.”<sup>6</sup> For example, after Hurricane Sandy, JFK did not resume service until three days after the storm, contributing to the more than 20,000 flights cancelled nationwide (roughly half of those occurring in the New York City area).<sup>7</sup> The report listed JFK among the U.S. airports most vulnerable to sea level rise.

The consulting firm of Michael Baker International made a presentation entitled “Ensuring Continuing Operation of New York City Airports in the Presence of Coastal and Climate Change Hazards” to the Association of State Floodplain Managers Conference in June 2014. Its key conclusions indicated, for JFK Airport, “significant jump in inundation by future year 2055 relative to other airports” and “subsurface backwater flooding issues.”<sup>8</sup>

The U.S. Global Change Research Program, a Congressionally-mandated interagency study group, identified JFK in 2014 as one of the U.S. airports most vulnerable to climate change.<sup>9</sup> More recent federal projections indicate the possibility of even higher levels of sea level rise and storm surge.<sup>10</sup>

Despite JFK’s clear vulnerability to increased storm surge as sea levels rise, the Port Authority’s EA lacks detail in its analysis regarding these dangers. The following are some of the shortcomings of the EA and its accompanying Appendix F:

- 1. Lack of detail regarding sea level rise projections:** Appendix F does not reveal what sea level rise projections were utilized. A range of projections exists, from low

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<sup>3</sup> Regional Plan Ass’n, *Upgrading to World Class The Future of the Region’s Airports Revisited* (June 2018), available at <http://library.rpa.org/pdf/RPA-Upgrading-to-World-Class-Revisited.pdf>, page 36.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 24.

<sup>6</sup> Andrew Freedman, *U.S. Airports Face Increasing Threat From Rising Seas*, CLIMATE CENTRAL (June 18, 2013), available at <http://www.climatecentral.org/news/coastal-us-airports-face-increasing-threat-from-sea-level-rise-16126>.

<sup>7</sup> *Id.*

<sup>8</sup> Available at [http://www.floods.org/Files/Conf2014\\_ppts/A4\\_Eberbach.pdf](http://www.floods.org/Files/Conf2014_ppts/A4_Eberbach.pdf).

<sup>9</sup> Schwartz, H. G., M. Meyer, C. J. Burbank, M. Kuby, C. Oster, J. Posey, E. J. Russo, and A. Rypinski, 2014: Ch. 5: Transportation. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 130-149. doi:10.7930/J06Q1V53, p. 134, available at <https://nca2014.globalchange.gov/report/sectors/transportation>.

<sup>10</sup> William V. Sweet et al., Global and Regional Sea Level Rise Scenarios for the United States, National Oceanic and Atmospheric Administration, January 2017, available at [https://tidesandcurrents.noaa.gov/publications/techrpt83\\_Global\\_and\\_Regional\\_SLR\\_Scenarios\\_for\\_the\\_US\\_final.pdf](https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf). See also In worst case scenario, Trump’s Mar-a-Lago estate and JFK could be underwater by 2100, Circa News, April 27, 2017, available at <https://www.circa.com/story/2017/04/27/scitech/in-worst-case-scenario-trumps-mar-a-lago-estate-and-jfk-could-be-underwater-by-2100>.

cases to high cases. Most definitive for these purposes are the official projections from the New York State Department of Environmental Conservation, 6 N.Y.C.R.R. Part 490. Under the high case, New York City would experience 75 inches of sea level rise in 2100. The EA should disclose the elevations of the runways out to the year 2100 under each of the scenarios set forth in these projections, and for each of these scenarios, it should discuss not only the static sea levels, but also the frequency and extent of storm surges, and their impacts on infrastructure and operations.

2. **Lack of detail regarding the term “1% floodplain”:** The EA should also clarify that is meant by "1% floodplain." It should detail when and how this term was defined, whether it is subject to revision, and the extent, if any, to which it reflects anticipated future sea level rise. Existing FEMA flood maps exclusively look at historic flooding, not future flooding that is anticipated in view of sea level rise.
3. **Lack of findings regarding runway status in 2100:** The EA should discuss the viability of JFK's runways in the year 2100 in view of the sea level rise projections, including the frequency with which the runways would be completely flooded.
4. **Lack of detail regarding proposed tide gate system:** Appendix F mentions that tide gates that will be constructed to mitigate damage from flooding, but there is no description in the entire EA or Appendix F of their design and operations, and whether their construction would require any additional permitting. Appendix F only states that “gating has been authorized for the five outfalls adjacent to Bergen Basin, west of the proposed project.”<sup>11</sup>

The Draft Environmental Assessment was prepared pursuant to the National Environmental Policy Act (“NEPA”), because the project will require the approval of the Federal Aviation Administration. Under NEPA, agencies must consider the environmental impacts of sea level rise and associated storm surge, flooding, and erosion risks, as exacerbated by increased frequency and intensity of hurricanes and tropical storms. NEPA’s implementing regulations provide that agencies must consider significant and reasonably foreseeable indirect and cumulative environmental impacts.<sup>12</sup> Agencies must define an appropriate baseline for considering projected environmental impacts; such a baseline should incorporate anticipated environmental conditions.<sup>13</sup> Accordingly, the Port Authority must consider sea level rise, the increasing frequency and severity of hurricanes, and their combined effects on storm surge as future baseline environmental conditions. Several federal courts have confirmed that NEPA regulations require federal agencies to evaluate the impacts of a changing climate on their

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<sup>11</sup> THE PORT AUTHORITY OF NY & NJ, RECONSTRUCTION OF RUNWAY 13L-31R AND ASSOCIATED TAXIWAYS PROJECT, JOHN F. KENNEDY INTERNATIONAL AIRPORT, DRAFT ENVIRONMENTAL ASSESSMENT (Sept. 2018) at F-26.

<sup>12</sup> See 40 C.F.R. §§ 1508.7 (defining “cumulative impact”), 1508.8 (defining “effects” as including direct and reasonably foreseeable indirect effects), 1508.25(c) (providing that EISs must consider direct, indirect, and cumulative impacts); see also CEQ, Considering Cumulative Effects under the National Environmental Policy Act (1997) [hereinafter “Considering Cumulative Effects Under NEPA”], available at <http://1.usa.gov/JLkM2I>.

<sup>13</sup> See Considering Cumulative Effects under NEPA, *supra* note 12, at 41; 40 C.F.R. 1502.15 (defining “affected environment”).

actions.<sup>14</sup> Consideration of climate change impacts has accordingly become an essential part of the NEPA process.<sup>15</sup> Furthermore, the withdrawal of the CEQ guidelines by the Trump administration does not affect judicially upheld obligations as was explicitly noted in the withdrawal notice.<sup>16</sup>

The Draft Environmental Assessment does not disclose, though it should, the state and local permits that will be required for the project. (Page 1-10 addresses the required federal approval, but not state approvals.) Any tidal gates or other work in the water, for example, would require approvals under New York State’s tidal wetlands program, N.Y. Environmental Conservation Law Article 25, and its Use and Protection of Waters regulations, 6 N.Y.C.R.R. Part 608. These approvals would be subject to the State Environmental Quality Review Act, N.Y. Environmental Conservation Law Article 8 (“SEQRA”). (Preparation of a full environmental impact statement under NEPA could obviate the need for review under SEQRA, but an Environmental Assessment does not.) The New York State Department of Environmental Conservation’s regulations under SEQRA were recently amended to require consideration of “measures to avoid or reduce both an action’s impacts on climate change and associated impacts due to the effects of climate change such as sea level rise and flooding.” 6 N.Y.C.R.R. §617.9(i).

The New York sea level rise projections noted above were mandated by New York’s Community Risk and Resiliency Act, Chapter 355 of the Laws of 2014, which requires consideration of these projections in multiple types of state environmental permitting decisions. I also note that the CEQR Technical Manual, which guides environmental reviews conducted by New York City, calls for consideration of rising sea levels and increases in storm surge and coastal flooding.<sup>17</sup>

In view of these shortcomings and requirements, the EA for the Reconstruction of Runway 13L-21R and Associated Taxiways Project should further elaborate on flooding risks related to sea level rise, set forth more detailed measures to mitigate these risks, and address compliance with New York State’s environmental regulatory requirements.

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<sup>14</sup> AquaAlliance, et al., v. U.S. Bureau of Reclamation, No. 1:15-CV-754-LJO-BAM, 2018 WL 903746, at \*38-\*39 (E.D. Cal. Feb. 15, 2018) (finding that the Bureau failed to adequately account for effects of climate change on water management project); Idaho Rivers United v. United States Army Corps of Engineers, No. C14-1800JLR, 2016 WL 498911, at \*17 (W.D. Wash. Feb. 9, 2016) (finding the USACE analysis of the effect of climate change on sediment disposition was adequate); Kunaknana v. U.S. Army Corps of Engineers, No. 3:13-CV-00044-SLG, 2015 WL 3397150, at \*10-\*12 (D. Alaska May 26, 2015) (finding the USACE reasonably concluded, based on a supplemental information report, that a supplemental EIS was not necessary); Kunaknana v. U.S. Army Corps of Engineers, 23 F. Supp. 3d 1063, 1092-98 (D. Alaska 2014) (determining that USACE should consider whether to prepare supplemental EIS for issuance of § 404 permit in light of new information on climate change).

<sup>15</sup> See e.g., AquaAlliance 2018 WL 903746 at \*38-\*39 (“Nonetheless, the FEIS/R fails to address or otherwise explain how this information about the potential impacts of climate change can be reconciled with the ultimate conclusion that climate change impacts to the Project will be less than significant: . . . [T]his amounts to a ‘failure to consider an important aspect of the problem’ . . .”) (internal citation omitted).

<sup>16</sup> Withdrawal of Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, 82 Fed. Reg. 16576 (April 5, 2017), available at <https://www.federalregister.gov/documents/2017/04/05/2017-06770/withdrawal-offinal-guidance-for-federal-departments-and-agencies-on-consideration-of-greenhouse-gas> (“The withdrawal of the guidance does not change any law, regulation, or other legally binding requirement.”).

<sup>17</sup> CEQR Technical Manual, Chapter 18, p. 18-7, [https://www1.nyc.gov/assets/oec/technical-manual/18\\_Greenhouse\\_Gas\\_Emissions\\_2014.pdf](https://www1.nyc.gov/assets/oec/technical-manual/18_Greenhouse_Gas_Emissions_2014.pdf).

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Gerrard". The signature is fluid and cursive, with the first name "Michael" and last name "Gerrard" clearly distinguishable.

Michael Gerrard  
Andrew Sabin Professor of Professional Practice  
Director, Sabin Center for Climate Change Law  
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