



August 8, 2013

*Submitted via email to [pubcomment-ees.enrd@usdoj.gov](mailto:pubcomment-ees.enrd@usdoj.gov)*

Robert G. Dreher  
Acting Assistant Attorney General  
Environment and Natural Resources Division, U.S. Department of Justice  
P.O. Box 7611  
Washington, DC 20044-7611

**Re: *United States, State of Florida and State of Florida Department of Environmental Protection v. Miami-Dade County, Civil Action No. 1:12-cv-24400-FAM, D.J. Ref. No. 90-5-1-1-4022/1***

Dear Assistant Attorney General Dreher:

These comments are submitted by the Natural Resources Defense Council (NRDC) on the proposed consent decree between Miami-Dade County and the U.S. Environmental Protection Agency (EPA), which was lodged with the United States District Court for the Southern District of Florida on June 6, 2013. These comments are timely submitted pursuant to 28 C.F.R. § 50.7, 78 Fed. Reg. 35315-02 and 78 Fed. Reg. 4210878.

NRDC is a nonprofit international environmental advocacy organization with more than 1.4 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Livingston, Montana, and Beijing.

EPA has brought the current federal enforcement action against Miami-Dade County for violations of the Clean Water Act related to the illegal discharge of tens of millions of gallons of sewage, which have polluted local waterways and threatened public health and aquatic ecosystems. Many local and national organizations, including NRDC, have presented concerns. In particular, the Biscayne Bay Waterkeeper has supplied expert statements regarding the proposed consent decree long before its lodging with the Court. Yet the current consent decree fails to address any of the issues expressed by these stakeholders. NRDC remains very concerned that the Capital Improvement Plan for the multi-billion dollar re-build of the sewer system fails to address these critical issues, and by

doing so, undermines the County's ability to achieve long-term compliance with the Clean Water Act.

Our specific concerns with the proposed consent decree between EPA and Miami-Dade County are as follows:

**1. The proposed consent decree does not adhere to the principles of Miami-Dade County's *GreenPrint* or the Southeast Florida Regional Climate Compact and its *Regional Climate Action Plan* because it fails to consider sea level rise projections and other climate change risks.**

Given the County's coastal location and low elevation, it is extremely vulnerable to sea level rise and other climate risks. Land elevation in Miami-Dade is typically only 3 to 10 feet above mean high water and since 1913, sea levels in the region have risen at the rate of 0.73 feet per century.<sup>1</sup> In fact, a study by the Organisation for Economic Co-operation and Development (OECD) ranks Miami fourth in terms of population and first in the world in terms of exposed assets at risk to coastal flooding.<sup>2</sup> Further, the County's own sustainability plan, *GreenPrint*, acknowledges that "changes in sea levels have the potential to significantly affect our infrastructure, drinking water supply, and risks associated with storm surge, flooding, and coastal erosion."<sup>3</sup> Accordingly, the plan states that future climate impacts will be integrated into "community and government decision-making for capital, operational, and land-use issues."<sup>4</sup> The Miami-Dade Board of County Commissioners also has passed numerous resolutions and ordinances in the past decade in support of action on climate change issues.<sup>5</sup>

Further, the County is an active member of the Southeast Florida Regional Climate Change Compact, which was established in 2010 to foster collaboration in support of regional climate resilience. In recognition of the severe risk that sea level rise poses, the Compact adopted unified sea level rise projections that recommend that planning in the region consider future

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<sup>1</sup> ICLEI USA, *Institutionalizing Climate Preparedness in Miami-Dade County, Florida* (2010), 4-6, available at [http://www.icleiusa.org/action-center/learn-from-others/ICLEI\\_Miami\\_DadeCase\\_Study\\_lowres.pdf](http://www.icleiusa.org/action-center/learn-from-others/ICLEI_Miami_DadeCase_Study_lowres.pdf).

<sup>2</sup> R.J. Nicholls, S. Hanson, Celine Herweijer, Nicola Patmore, Stephane Hallegatte, Jan Corfee-Morlot, Jean Chateau and Robert Muir-Wood, "Ranking Port Cities with High Exposure and Vulnerability to Climate Extremes," *OECD Environment Working Papers, No. 1* (2008), available at <http://dx.doi.org/10.1787/011766488208>.

<sup>3</sup> Miami-Dade County, *GreenPrint: Our Design for a Sustainable Future* (2010), 71, available at <http://www.miamidade.gov/GreenPrint/pdf/plan.pdf>.

<sup>4</sup> *Id.* at 77.

<sup>5</sup> See Miami-Dade Board of County Commissioners, "Creation of Climate Change Advisory Task Force," Ordinance No. 06-113, available at <http://www.miamidade.gov/govaction/legistarfiles/Matters/Y2006/061152.pdf>; "Resolution on Climate Change Compact," Resolution No. R-1388-09, available at <http://www.miamidade.gov/govaction/legistarfiles/Matters/Y2009/092915.pdf>; and "Resolution Accepting the Southeast Florida Regional Climate Action Plan," Resolution No. R-240-13, available at <http://www.miamidade.gov/govaction/legistarfiles/Matters/Y2012/122459.pdf>;

sea level rise of 9 to 24 inches by 2060.<sup>6</sup> The Compact's *Regional Climate Action Plan* also specifically recommends that water infrastructure be assessed for potential climate change impacts and that strategies including replacement, reinforcement, or relocation be considered for high-risk infrastructure components.<sup>7</sup>

The proposed consent decree also does not account for other climate change impacts. In addition to sea level rise, climate change will affect other natural hazards. Higher ocean temperatures are expected to magnify the intensity of tropical storms and hurricanes, potentially leading to greater storm surges.<sup>8</sup> Increases in heavy rainfall events also have been observed in the region, and this trend is expected to only continue, placing public health and safety at risk from flooding and associated sewer system failures.<sup>9</sup>

The proposed consent decree also fails to comply with provisions of President Obama's *Climate Action Plan*, including that federal agencies "ensure that climate risk-management considerations are fully integrated into federal infrastructure and natural resource management planning,"<sup>10</sup> and is contrary to EPA's commitment to address climate change impacts.<sup>11</sup> Despite the fact that Miami-Dade County and EPA both consider sea level rise and climate change to be significant risks, the proposed consent decree fails to address how climate risks will impact the County's ability to upgrade and maintain its sewer infrastructure.

## **2. The proposed consent decree's failure to evaluate climate change risks is against the public interest.**

The use of billions of dollars in Miami-Dade County taxpayer funds for the proposed sewer system rebuild without first undertaking the appropriate sound science and engineering studies as to how to protect these investments from sea level rise, storm surge, flooding and climate impacts, is fiscally irresponsible. Failure to consider how the County's three wastewater

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<sup>6</sup> Southeast Florida Regional Climate Change Compact Counties, *A Unified Sea Level Rise Projection for Southeast Florida* (2011), available at <http://southeastfloridaclimatecompact.org/pdf/Sea%20Level%20Rise.pdf>.

<sup>7</sup> Southeast Florida Regional Climate Change Compact Counties, *A Region Responds to a Changing Climate: Regional Climate Action Plan* (2012), 27, available at <http://southeastfloridaclimatecompact.org/pdf/Regional%20Climate%20Action%20Plan%20FINAL%20ADA%20Compliant.pdf>.

<sup>8</sup> Florida Atlantic University, *Adaptation and Mitigation of Climate Change Impacts: South Florida on the Front Lines* (2009), 1, available at [http://www.ces.fau.edu/files/projects/climate\\_change/ICCE\\_whitepaper\\_Impacts\\_SFL\\_071409.pdf](http://www.ces.fau.edu/files/projects/climate_change/ICCE_whitepaper_Impacts_SFL_071409.pdf).

<sup>9</sup> Miami-Dade County 2010 at 73.

<sup>10</sup> Executive Office of the President, *The President's Climate Action Plan* (2013), 13, available at <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>.

<sup>11</sup> See U.S. EPA, *National Water Program 2012 Strategy: Response to Climate Change* (2012), available at <http://water.epa.gov/scitech/climatechange/2012-National-Water-Program-Strategy.cfm> and "U.S. Environmental Protection Agency Policy Statement on Climate-Change Adaptation" (2011), available at <http://www.epa.gov/climatechange/Downloads/impacts-adaptation/adaptation-statement.pdf>.

treatment plants will be protected against these climate impacts leaves the \$1.6 billion in proposed capital expenditures vulnerable. Consequently, the County's existing wastewater treatment plants likely will be severely damaged by hurricanes and other storms, causing massive pollution of coastal waters and threats to public health and safety.

In particular, the County fails to demonstrate how significant investment in the Central District Wastewater Treatment Plant on Virginia Key is appropriate given the low elevation and high vulnerability of this unprotected barrier island to sea level rise and storm surge inundation. In fact, a storm surge vulnerability analysis of this treatment plant in the County's *Ocean Outfall Legislation Compliance Plan* indicates that numerous structures and critical components of the facility are vulnerable to sea level rise and storm surge.<sup>12</sup>

Additionally, under Florida law, the County must eliminate wastewater discharges through ocean outfalls by 2025 (only another 12 years). That legal requirement undermines any past geographic advantage of Virginia Key as a site for a major wastewater treatment facility. Further, the County claims that it will use Virginia Key for a sewage deep well injection site when it can no longer discharge to the Atlantic Ocean.<sup>13</sup> Yet no appropriate studies have been conducted to determine the ongoing safety of this disposal technique on Virginia Key given sea level rise impacts. Moving forward with capital projects that do not adequately consider climate change risks would jeopardize millions of dollars of taxpayer money on improvements that likely will be rendered moot in the face of climate change.

**3. The proposed consent decree must require Miami-Dade County to undertake a comprehensive sound science and engineering evaluation process in order to implement a proper re-build of its sewage collection and treatment system.**

The proposed consent decree must include a sound science and engineering analysis of how climate change will impact the ability of the County's sewer system to achieve and maintain compliance with the Clean Water Act, including an assessment of whether rebuilding the wastewater treatment plants at their current locations is cost-effective when climate impacts such as sea level rise and storm surge are properly considered. Because this evaluation likely will significantly alter the nature and costs of capital projects, it must be implemented as part of the consent decree.

In an affidavit previously submitted to EPA and Miami-Dade County, Professors Dr. Leonard Berry and Ricardo Alvarez of Florida Atlantic University describe in detail a sound science and engineering methodology designed to identify a cost-effective, long-term plan for operation of the County's wastewater treatment system. This methodology includes a detailed assessment of the vulnerability of the County's wastewater treatment plants to the impacts of climate

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<sup>12</sup> Miami-Dade Water and Sewer Department, *Ocean Outfall Legislation Compliance Plan* (2013), 39, available at <http://www.miamidade.gov/water/library/reports/ocean-outfall-legislation.pdf>.

<sup>13</sup> *Id.* at 70-71.

change and sea level rise and includes a detailed process for determining whether a plant, or some of its components, should be relocated or, alternatively, hardened in place.<sup>14</sup>

By failing to undertake such an analysis, the County's proposed taxpayer-funded sewer infrastructure investments will not withstand sea level rise and climate-related impacts projected to occur in the service life of such facilities. As evidenced by the major damages caused by Hurricane Andrew in 1992, which rendered the South District Wastewater plant inoperable for 30 days, and more recently by the devastating impacts to infrastructure and massive sewage spills caused by Hurricane Sandy in New York and New Jersey, it is an obligation to current and future residents to rebuild the County's sewage infrastructure using the best available science to build long-term climate resilience.

NRDC is fully committed to encouraging local communities, states, and the federal government to take action to plan and prepare for the challenges that climate change presents. Across the United States, the impacts of climate change on water resources are already being observed. Increasing temperatures, changing precipitation patterns, and rising sea levels are fundamentally changing our communities and natural resources. These changes are threatening public health, affecting water availability and energy production, putting vulnerable homes and infrastructure at risk, and jeopardizing vital ecosystems. By fully considering climate risks in planning, decision-makers can better manage the impacts of climate change and protect public health, the economy, and the environment. Given the County's significant vulnerability to climate change impacts and its commitment to a sustainable and resilient future, Miami-Dade can and should be serving as an example of a community that is fully committed to planning and preparing with sea level rise, storm surge, and other climate impacts in mind.

Thank you for the opportunity to comment.

Sincerely,



Ben Chou  
Policy Analyst, Water Program



Rob Moore  
Senior Policy Analyst, Water Program

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<sup>14</sup> "Declaration of Dr. Leonard Berry and Mr. Ricardo A. Alvarez," February 5, 2013.