

Esteban L. Bovo, Jr.  
Miami-Dade County Board of County Commissioners Chair  
Stephen P. Clark Center  
111 NW 1<sup>st</sup> St., Suite 320  
Miami, FL 33128

April 2, 2018

Dear Chairman Bovo,

We support the use of reclaimed water generally to address Miami-Dade County's needs, and think that the proposed Joint Partnership Agreement ("JPA") project could, with the right design and implementation, have wide-ranging benefits for County citizens.

We are concerned, however, that the current draft JPA may not fulfill that objective. We are also concerned about some of the comments made at the March 8, 2018 Committee meeting, particularly by Florida Power & Light ("FPL"), that may have misrepresented certain realities surrounding the JPA and the current environmental issues posed by the Turkey Point cooling canals.

Attached please find:

- 1) A brief letter setting forth some of our concerns for the JPA and our responses to several, but not all, of the statements made at the March 8, 2018 Chairman's Policy Committee meeting, as well as our hopes for language to improve the JPA; and
- 2) A more detailed letter previously sent to Committee members explaining our desired changes to the JPA in more detail.

The first two attached documents describe our proposed changes to the JPA in more detail, but our overarching recommendations include:

- **Explicitly committing to treating reuse water to Biscayne Bay anti-degradation standards to avoid additional pollution in the Bay & aquifer**
- **Explicitly committing to provide reuse water for wetlands restoration and rehydration**
- **Explicitly committing to maintaining the County's position to decommission the cooling canals and upgrade the cooling technology system.**

Sincerely,

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Miami, FL 33128

April 2, 2018

Dear Honorable Chairman Bovo,

During the March 8, 2018 Chairman's Policy Council meeting, a number of statements were made regarding the Joint Partnership Agreement ("JPA") and the proposed Advanced Reclaimed Water Project ("ARWP") that were misleading, inaccurate, or failed to provide critical information regarding the project and Miami-Dade's public and environmental health. Because the Commissioners' constituents were prohibited from providing public comment at this meeting – though FPL was able to speak at length, as were residents from outside the County – we would like to take this opportunity to correct some of the misrepresentations, and offer suggestions as to how the JPA and proposed ARWP can add greater value for the County and its residents, while still meeting FPL's requirements.

First, we are not opposed to wastewater reclamation and use of processed water; rather, we support it, but only when such activities do not contribute to environmental degradation or pollution. In this case, due to the proven connectivity between the cooling canal system, the Biscayne Aquifer, and surface waters including Biscayne Bay, the quality of any water added to the cooling canals must meet Biscayne Bay's anti-degradation standards. Without language making an explicit commitment to strict water quality standards, the JPA as currently drafted prioritizes FPL's short-term needs at the possible expense of the County's long-term sustainability.

The memorandum the Mayor provided to Commissioners prior to the meeting noted that the reclamation project could be a "stepping stone to other reclaimed water projects that could meet 100 percent of our reuse goals and offer a reliable and safe source of water to rehydrate regional wetlands."<sup>1</sup> However, as currently drafted, the JPA does not reflect the Mayor's position – it does not mention the potential for wetland rehydration, focusing exclusively on fulfilling FPL's need for County water. By moving forward with the JPA without changes to define its goals, the County and its residents could lose a unique opportunity to enhance Miami-Dade ecosystems on a larger scale and improve resiliency, public health, and the environment.

When entered into by the parties, the current JPA will be a legal instrument with binding provisions that can be enforced by injunction; without setting forth the County's needs explicitly in the JPA, County negotiators will not have the guidance needed to adequately develop a final ARWP or conduct necessary analyses when determining the County's interests in the ARWP.

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<sup>1</sup> <http://www.miamidade.gov/mayor/library/memos-and-reports//2018/01/01.30.18-FPL-JPA-Memorandum.pdf>

We believe that with thoughtful modifications to the JPA, the resulting ARWP could be hugely successful and help further the County's global reputation as a sustainability and resiliency innovator.

Examples of some of the issues raised at the Chairman's Policy Council meeting and our responses are outlined below:

- 1) Several Commissioners expressed a desire for the County to maintain regulatory authority over the Turkey Point cooling canal system. However, it is important to clarify that the canal system is not subject to surface water quality standards and the County has limited authority to regulate water in the cooling canals.**

**Our response:** Despite interacting hydrologically with Biscayne Bay and the Biscayne aquifer,<sup>2</sup> the canal system is not subject to surface water quality standards. Because it is an industrial wastewater facility, FPL does not have the responsibility to maintain the same water quality standards for the cooling canals as are required for the sensitive waters surrounding them—namely, Biscayne Bay, Biscayne National Park, the Florida Keys National Marine Sanctuary and the Biscayne Aquifer. FPL refers to a Consent Agreement and Addendum with DERM, but that Agreement places few concrete responsibilities on FPL other than monitoring. Thus, there are currently no enforceable water quality standards for water entering the cooling canal system. Furthermore, though the DERM Consent Agreement and DEP Consent Order requires FPL to test the canal and surrounding ground and surface waters for certain contaminants, it does not require “immediate” remediation, as had been stated.<sup>3</sup>

- 2) FPL commented to the Commission that it was comprehensively addressing the environmental problems related to the canals by “withdrawing the hypersaline plume [and] reducing the salinity in the canal(s).” This is misleading because salinity is one of several contamination issues in the canals, the hypersaline plume withdrawal plan has been criticized by experts, and there is little evidence to suggest it will prevent future contamination from the system.**<sup>4</sup>

**Our response:** *First*, the salinity in the canals is only one contamination issue. As described by the Mayor, DERM discovered nutrient levels, at the bottom of the water column in Biscayne Bay in excess of state water quality standards, along with radioactive tritium, which provided “compelling” evidence that the increased nutrient levels and elevated salinity were a result of discharge from the canals.<sup>5</sup> However, in a subsequent March 2017 report on ammonia levels in the Bay, FPL argued that increased ammonia levels at the bottom of the

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<sup>2</sup> <http://www.miamidade.gov/mayor/library/memos-and-reports/2016/03/03.07.16-Report-on-Recent-Biscayne-Bay-Water-Quality-Observations.pdf>

<sup>3</sup> Statement by Mayor Giménez (Committee meeting video starting at 1:17:00).

<sup>4</sup> Statement by FPL Senior Director Stephen Scroggs (Committee meeting video starting at 1:02:56).

<sup>5</sup> <http://www.miamidade.gov/mayor/library/memos-and-reports/2016/03/03.07.16-Report-on-Recent-Biscayne-Bay-Water-Quality-Observations.pdf> (Page 4).

water column were not related to the canal system, made no reference to tritium, and argued that the company should not be required to take corrective action.<sup>6</sup> *Second*, a number of scientists and engineers, including experts at the University of Florida, the South Florida Water Management District, ESA Engineering and Water Science Associates all criticized the model used by FPL to justify their plume withdrawal plan.<sup>7</sup> Further, there is insufficient evidence to establish that the remediation plan will prevent further contamination.

**3) FPL stated that adding treated wastewater to the cooling canals would “make the canals healthier.”<sup>8</sup> This statement ignores the impact of the canal water quality on the Biscayne Aquifer and Biscayne Bay.**

**Our response:** The County must commit to preventing additional contaminants from entering the cooling canal system because it will add to existing pollution plaguing both the Aquifer and the Bay. Plans to restore “the canal ecosystem” with reuse water fail to include a discussion of what happens to contaminants in the cooling canals when additional water is added to the system. Ample documentation exists to support the fact that water and contaminants from the cooling canals migrate into the Biscayne Aquifer and Biscayne Bay, including documentation from the Mayor’s office.<sup>9</sup> Typical treated wastewater contains high levels of nutrients like phosphorus and ammonia,<sup>10</sup> which, if added to Biscayne Bay, could lead to ecological disruptions such as algae blooms and seagrass die-offs. Considering the direct connection between the canals, Aquifer, and Bay, insufficiently treated wastewater could further contaminate and degrade the Biscayne Bay ecosystem. We appreciate comments by Commissioner Sosa, in which she recommended that the JPA require processed wastewater to meet anti-degradation standards for Biscayne Bay. *We urge the Board of Commissioners to ensure that any JPA and subsequent ARWP contain anti-degradation water quality standards that protect Biscayne Bay and the Biscayne Aquifer.* There is no evidence that this additional water will increase the speed of the “clean up” of the canal system—in fact, experts believe that increasing the hydrologic pressure in the canals by adding more water will only push the pollution into the Aquifer and the Bay faster.<sup>11</sup> We urge the Board to acknowledge that adding water to the system is only a step in the remediation, mitigation and abatement process of the cooling canals. The only way to achieve true abatement and speed up remediation of this pollution is to decommission the cooling canal system.

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<sup>6</sup> <http://www.psc.state.fl.us/library/filings/2017/09365-2017/Support/EXH%2062%2020170007%20-%20Staff%27s%203rd%20POD%20No.%2025%20-%20Attachment%20No.%201.pdf>

<sup>7</sup> Those analyses can be provided upon request.

<sup>8</sup> Statements by FPL Senior Director of Operations Support Irene White (Commission meeting video beginning at 50:51).

<sup>9</sup> <http://www.miamidade.gov/mayor/library/memos-and-reports/2016/03/03.07.16-Report-on-Recent-Biscayne-Bay-Water-Quality-Observations.pdf>

<sup>10</sup> <https://www.epa.gov/nutrientpollution/sources-and-solutions-wastewater>

<sup>11</sup> Data available upon request and *see* “Review of the CCS Water and Salt Budget Reported in the 2012 FPL Turkey Point Pre-Uprate Report and Supporting Data” 5 April 2013 W.K. Nuttle.

- 4) FPL stated that cooling towers are “not a viable option,” “do nothing to address environmental issues,” and “when it comes down to an environmental answer, cooling towers don’t help.”<sup>12</sup> These statements are inaccurate and misleading because cooling towers would eliminate reliance on the contaminating cooling canal system.

**Our response:** This statement is inaccurate. Cooling towers would eliminate discharge of the plant’s contaminated industrial wastewater into the canal system and would reduce ongoing pressure on the aquifer, thus improving conditions for our aquifer and the Bay. The Board of County Commissioners recognized the environmental benefits of cooling towers when they passed a July 19, 2016 resolution urging FPL to discontinue use of the cooling canals. Cooling towers are technically feasible, economically cost-effective and will improve the efficiency of operations at Turkey Point.<sup>13</sup>

**Respectfully, we request the Board make the following changes to the current JPA:**

- **Explicitly require reuse water be treated to meet Biscayne Bay anti-degradation water quality target standards identified by the Biscayne Bay Coastal Wetlands Rehydration Project Delivery Team<sup>14</sup>**
- **Designate a meaningful supply of additional reuse water for Biscayne Bay restoration and wetland rehydration**
- **Insist on a cooling tower retrofit and decommissioning the cooling canal system by 2033**

Our prior letter on this topic is available at the link below<sup>15</sup>. Because the JPA agreement has also had amendments, we further request that additional public comment be allowed at the meeting on this item before the full Board. Thank you for your consideration.

Sincerely,

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<sup>12</sup> Statements by FPL Senior Director of Operations Support Irene White and FPL Senior Director Stephen Scroggs (Commission meeting video beginning at 1:09:31).

<sup>13</sup> *Closed Cycle Cooling Tower Feasibility Assessment for Turkey Point Nuclear Units 3 and 4*, July 2016, Powers Engineering. Available at: [http://www.cleanenergy.org/wp-content/uploads/PowersReport\\_on\\_CoolingTowerFeasibility\\_Assessment\\_TurkeyPoint-Nuclear2016.pdf](http://www.cleanenergy.org/wp-content/uploads/PowersReport_on_CoolingTowerFeasibility_Assessment_TurkeyPoint-Nuclear2016.pdf)

<sup>14</sup> Biscayne Bay Coastal Wetlands Rehydration Pilot Project: Pilot Plant Closeout Report. July 2011. Table 2-1.

<sup>15</sup> [http://www.cleanenergy.org/wp-content/uploads/F\\_GroupLtr\\_reJPAonReusewithFPL\\_030118.pdf](http://www.cleanenergy.org/wp-content/uploads/F_GroupLtr_reJPAonReusewithFPL_030118.pdf)

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