



## United States Department of the Interior



NATIONAL PARK SERVICE  
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IN REPLY REFER TO:

SER-PC

JUL 17 2015

Ms. Cindy Bladey  
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U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Col. Jason Kirk  
District Commander  
U.S. Army Corps of Engineers  
701 San Marco Boulevard  
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Dear Ms. Bladey and Colonel Kirk:

The National Park Service (NPS) appreciates the opportunity to be a cooperating agency with the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Army Corps of Engineers (USACE) in the review and development of the Draft Environmental Impact Statement (DEIS) for Combined Licenses for Turkey Point Nuclear Plant Units 6 and 7 proposed by Florida Power & Light (FPL). We offer the following comments on the recently released DEIS and the USACE's public notice for the FPL permit application related to the proposed units in accordance with Section 404 of the Clean Water Act and Sections 10 and 14 of the Rivers and Harbors Act.

FPL has submitted a Combined Construction and Operating License application to the NRC to build two additional nuclear reactors (Units 6 and 7) at the Turkey Point power plant facility in Homestead, Florida. The Turkey Point power plant complex is located adjacent to Biscayne National Park (Biscayne NP) and two miles south of the park's visitor center and headquarters. Additionally, Everglades National Park (Everglades NP) is located 15 miles west of the plant and would also be impacted by the project. Other proposed infrastructure includes the construction of additional access roads, bridges, a reclaimed water treatment facility, reclaimed and potable water pipelines, radial collector wells (RCW) and associated pipelines, expansion of an existing barge basin, and two separate powerline corridors, the westernmost of which is currently proposed within and adjacent to Everglades NP. The eastern powerline corridor would be built within a small portion of Biscayne NP where FPL has an existing powerline easement.

Due to the national and international significance of Biscayne and Everglades NPs, NPS signed a Memorandum of Agreement with NRC and USACE in July 2013 to become a cooperating agency to help ensure that concerns related to impacts on NPS resources and values would be carefully considered by NRC and USACE in the development of the DEIS. Our special expertise regarding NPS resources and impacts to those resources is informed by an intimate understanding of NPS specific legislation, including each park's enabling legislation, NPS policy, and extensive natural resource management experience of staff from each park. As a cooperating agency, NPS has actively engaged with NRC in the development of the DEIS by participating in scoping meetings, project calls, interagency meetings, and document reviews. We appreciate the extent to which NRC and USACE have actively engaged the NPS in the development of the DEIS.

In our role as a cooperating agency, the NPS has continually shared our concerns regarding the analysis of impacts to NPS resources with NRC. We previously submitted comments on October 8, 2014, and November 25, 2014, on the preliminary DEIS; yet many of these concerns have not been addressed in the DEIS. After a thorough review of the DEIS, the NPS has identified a number of concerns regarding assumptions contained in the DEIS, the analysis of impacts, and the conclusions related to severity of impacts on resources managed by the NPS. The NPS remains concerned that federal actions associated with permitting and operating the proposed facility could result in adverse impacts to NPS resources and values including water quality and quantity, wetlands, wildlife and fisheries resources (including species listed under the Endangered Species Act), scenery, and the experience of park visitors that may affect our ability to manage these resources for their preservation for current and future generations. Although we recognize nuclear power as one of the means to achieve energy independence from fossil fuel, we also recognize the unique situation posed by the proposed expansion of the Turkey Point power plant immediately adjacent to two national parks. Both Biscayne and Everglades NPs are located within the greater Everglades ecosystem, which is not only one of the nation's most iconic landscapes, but also the focus of the largest intergovernmental watershed restoration program in the world. Accordingly, our primary concerns with the DEIS include the following:

### **Hydrologic Modeling**

The NPS is concerned that numerous assessments in the DEIS rely upon hydrologic models, whose scale and extent were too large to adequately determine localized environmental effects of the proposed action on NPS resources. Although the model utilized by the NRC answered some questions related to the effect of the proposed action on the regional hydrologic system, the scale of the model used by the NRC in conducting its impact assessment is not fine enough to effectively evaluate impacts to NPS resources located with portions of Biscayne NP from the removal or moderation of freshwater along the shoreline of the park, the removal of water within the park through groundwater withdrawal at the RCWs, and the potential for direct adverse impacts at the site of withdrawal on seagrass beds and seagrass faunal and benthic communities. The NRC should utilize newer data available from NPS and the South Florida Water Management District to improve the extent, scale, and calibration of the models to accurately evaluate the appropriate spatial extent of these potential impacts on park resources. Furthermore, the model should better characterize operations of the RCWs and the relative

localized impacts of the resulting movement of the hypersaline plume that presently exists from the operation of the Industrial Wastewater Facility (IWF or cooling canals) used to cool the existing facility on surface and ground waters, as well as the relative effects of sea-level rise on operations of the RCW system.

### **Extended Operation of the RCWs**

The NPS is concerned about the potential for adverse impacts to park resources from continued and extended operation of the RCWs, particularly operating scenarios involving either the combination of RCW water with the primary wastewater supply or using RCW water in place of reused wastewater for the primary source of cooling. More specifically, the NPS is concerned that the DEIS does not contain information to evaluate whether the operation of the RCW could draw the subterranean hypersaline plume further eastward into Biscayne NP. The NPS recommends that additional scenarios that extend the period of RCW operation and vary IWF stages and salinity should be assessed with an appropriately scaled model to quantify this uncertain risk to Biscayne NP.

### **Water Quality Impacts and the Industrial Wastewater Facility (IWF)**

The NPS is concerned that the DEIS does not fully analyze water quality impacts, which are derived from construction activities, associated cooling water drift, and the movement of IWF waters related to RCW operation, to NPS resources, especially cumulative impacts associated with the IWF. Recent developments relating to the operation of the IWF were not analyzed in the DEIS. The hyper-salinity and temperature in the IWF, including the use of regional system water under recent orders, must be evaluated as part of the past, present, and future cumulative impacts. Also, the IWF and its associated plume should be evaluated to better understand cumulative impacts from RCW operation on the hypersaline plume. Fundamentally, the NPS is concerned that the operation of the RCWs has the potential to affect the salinity of Biscayne Bay. The DEIS modeling demonstrated that RWC operations influenced salinity at a broad spatial scale. However, salinity variability at a scale finer than that addressed by modeling would provide more insight into localized potential ecological effects in southern Biscayne Bay. The NPS recommends more extensive analysis of the model output and some model modifications, including the consideration of more recent salinity data, to increase its spatial resolution to determine the extent to which RCW operations will adversely impact resources in Biscayne NP due to salinity changes.

### **Climate Change and Sea-Level Rise**

The NPS is concerned that the DEIS does not include a sufficient analysis of how sea-level rise, hurricanes and storms, and climate change may impact the proposed project and NPS resources affected by these changing conditions. As an example, the DEIS does not address how sea-level rise may impact plant operations or the availability of cooling water sourced from the South Miami-Dade Wastewater facility and a greater reliance on the RCWs. There is recent draft climate change guidance from the Council on Environmental Quality on how to consider the effects of greenhouse gas emissions and climate change in the evaluation of federal actions, as well as guidance related to sea level rise and siting infrastructure from National Oceanic and Atmospheric Administration. The NPS recommends that NRC review these or other related guidance documents and update the DEIS as appropriate to account for climate change/sea level rise.

## **Analysis of Impacts to Comprehensive Everglades Restoration Plan (CERP) Projects and the Biscayne Bay Coastal Wetlands (BBCW) Project**

One of the goals of the CERP is to increase freshwater flow to Biscayne NP to achieve more natural hydrologic conditions within the park that has been negatively impacted by implementation of the regional water supply and flood control project. Given the lack of specific localized information regarding the effect of the RCWs on nearshore salinity levels, the NPS disagrees with NRC's conclusion that the proposed action would have minimal effect on CERP and Phase 1 of the BBCW project. NPS remains concerned that the cumulative impacts resulting from this project could potentially negate current or potentially future efforts to increase freshwater flows to rehydrate wetlands and reduce point source pollution discharge into Biscayne NP and Biscayne Bay. A second phase of the BBCW project remains to be planned and authorized, but is reflected in overall salinity restoration target goals for the park. Detailed review of modeling results from the DEIS analysis show a potential for impacts to groundwater sources for CERP, as well as movement of the groundwater masses related to RCW operations. The BBCW Project Phase 1, which is intended to redistribute existing freshwater flows to Biscayne NP, is now entering the construction phase with operation to shortly follow.

In addition to the above concerns, more detailed technical concerns, requested changes, and supporting documentation will be provided to NRC and USACE next week.

The NPS asserts that the DEIS impact analysis associated with construction and operation of proposed Units 6 and 7 does not sufficiently address issues related to the environmental impacts of the proposed action on resources managed by the NPS. Based on our review of the DEIS, we have strong concerns that impact analysis described in the DEIS does not: 1) sufficiently utilize the best science/data/information (e.g., current salinity data or sea-level rise projections for modeling) to analyze the environmental effects of the proposed action on the affected environment, including Biscayne and Everglades NPs; 2) acknowledge scientific uncertainty associated with the effects of certain elements of the proposed action, including the use of groundwater collected from the RCWs on the resources of Biscayne NP; 3) fully describe the importance of the fragile and threatened nature of Biscayne and Everglades NPs, Biscayne Bay, and the broader Everglades ecosystem in the context of ongoing federal and state efforts to restore the Everglades; and, as a result, 4) provide for opportunities to eliminate or mitigate risks to NPS resources.

It is for these reasons, we respectfully request that NRC and USACE revise the DEIS to address these issues. An update to the DEIS analysis should: 1) more fully evaluate potential impacts on NPS resources; and 2) more fully address the current information related to the Florida Siting Board's Conditions of Site Certification that address features of the plant components that may affect the environment, including the RCWs and other associated infrastructure, including the construction of power lines. The development of this additional information would better inform NRC licensing and USACE's permitting decisions. Specifically, additional analysis of the outstanding issues we have identified may assist USACE in determining the Least Environmentally Damaging Practicable Alternative and consideration of the public interest. Moreover, this information would better inform the public

regarding the extent of potential impacts and the decision-making process. The NPS is ready to collaborate with the NRC and USACE on this effort.

Thank you for considering our comments and taking our views into careful consideration. Please contact Bryan Faehner at [bryan\\_faehner@nps.gov](mailto:bryan_faehner@nps.gov) or 202-513-7256 if you have any questions or concerns regarding our comments.

Sincerely,



*for* Stan Austin  
Regional Director

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