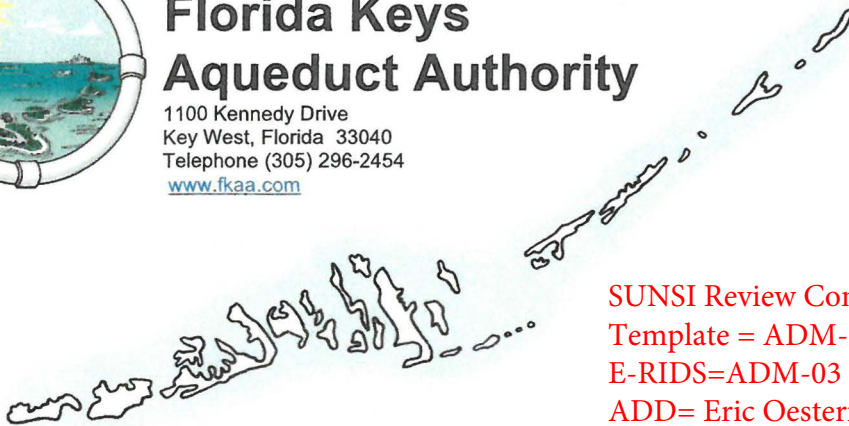




# Florida Keys Aqueduct Authority

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SUNSI Review Complete  
Template = ADM-013  
E-RIDS=ADM-03  
ADD= Eric Oesterie, David  
Drucker, Kevin Folk, Lois  
James

J. Robert Dean  
Chairman  
District 3

Richard J. Toppino  
Vice-Chairman  
District 2

David C. Ritz  
Secretary/Treasurer  
District 5

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District 4

Cara Higgins  
District 1

Kirk C. Zuelch  
Executive Director

October 29, 2019

Mr. Marc Harris, PE  
Environmental Administrator  
Industrial Wastewater Section  
Florida Department of Environmental Protection  
Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, FL. 32399

COMMENT (14)  
PUBLICATION DATE:  
4/4/2019  
CITATION # 84 FR 13322

RE: Florida Power and Light Company  
Turkey Point Power Plant – Wastewater Permit No. FL0001562  
Response to FPL Letter to ORCA, dated September 26, 2019

Dear Mr. Harris:

The Florida Keys Aqueduct Authority (FKAA) appreciates the opportunity to provide comments, pursuant to the provisions of 62-620.555, Florida Administrative Code, to the referenced draft permit.

For 10 years, Florida Power and Light (FPL) has not, as required by Florida Statutes and governing administrative rules, provided reasonable assurances that it has the ability, under continued operation of this wastewater disposal system, to prevent uncontrolled seepage from its Cooling Canal System (CCS) at the Turkey Point facility from continuing to contaminate the Biscayne Aquifer. For that reason, this application for renewal of the Industrial Wastewater (IWW/NPDES) Permit No. L0001562 at the Turkey Point facility does not comply with the applicable provisions of chapter 403, Florida Statutes and the pertinent administrative rules set out in Title 62 of the Florida Administrative Code. It is in recognition of this that FKAA requests that DEP not renew FPL's IWW/NPDES permit as written.

Uncontrolled seepage of hypersaline water from the CCS at the FPL Turkey Point facility is responsible for the presence and westward migration of the hypersaline plume within the Biscayne Aquifer. FPL is now under Consent Orders with both DEP and Miami-Dade County Department of Environmental Resource Management (DERM) to remediate this hypersaline plume. In agreement in principle of both Consent Orders, it is the position of FKAA that: (1) FPL must be required to cease discharge of hypersaline water and all other potential contamination from its CCS into the Biscayne Aquifer whose

presence is facilitating further westward migration of the saltwater interface that currently threatens FKAA's municipal potable water supply to Monroe County.

In its letter to the Ocean Reef Community Association (ORCA) dated September 26, 2019 (ORCA Response Letter), FPL asserts that it "has implemented an extensive groundwater, surface water and ecological monitoring network covering Biscayne Bay, Card sound, manmade canals and wetlands surrounding the [Turkey Point] facility" and that the "...results from these monitoring points do not support the contention that the Turkey Point facility has been releasing pollutants and contaminants from the CCS to Biscayne Bay, Card Sound, or the surrounding wetlands and surface waters". It is of note that FPL specifically excludes the Biscayne Aquifer from this assertion in recognition of its own failing to prevent or control uncontrolled seepage from the CCS from contaminating the Biscayne Aquifer. FPL further claims that Best Management Practices will be used to prevent further degradation of the Biscayne Aquifer, but offers no concrete evidence, data or factual support on specifically what means and methods will actually be used to prevent further contamination under the proposed IWW/NPDES permit.

In the ORCA Response Letter, FPL also claims that the hypersaline plume is "a distinctly separate groundwater phenomenon" from the saltwater interface and in doing so, completely ignores the existential threat to FKAA's municipal water supply wellfield. The 2016 FPL Consent Order from FDEP (Consent Order) specifically states in Paragraph 13 that, "the CCS is the major contributing cause to the continuing westward movement of the saline water interface" and specifically obligates FPL to mitigate impacts arising from the influence of the hypersaline plume on the saltwater interface. In support of this goal, FPL conducted a study to allocate relative contributions of various factors on the historical movement of the saltwater interface, the results of which established that hypersalinity in the CCS has the greatest influence on the saltwater interface out of a total of eight factors considered and therefore the saltwater interface is an integral part of the hypersaline plume originating from the CCS. The current location and movement of the saltwater interface is not natural nor is the hypersaline plume a distinctively separate phenomenon, rather it is a direct and ongoing result of CCS operations. In making the claim that the hypersaline plume and the saltwater interface are separate phenomenon, FPL not only contradicts information developed by its own consultants, but also contradicts its own admissions in the Consent Order.

With regard to distances of various salinity tritium contours from the FKAA municipal water supply wellfield, we have attached two diagrams showing recent salinity and tritium data collected from monitoring stations owned and operated by FKAA, DERM, the USGS, and FPL showing that the hypersaline plume extends approximately 2 miles from the CCS (7-8 miles from FKAA wellfield); the saltwater water interface extends 5-6 miles from the CCS (3-4 miles from FKAA wells); and the elevated tritium plume extends 4-5 miles from the CCS (4-5 miles from FKAA wells). These diagrams show a clear relationship between the hypersaline plume, the saline water interface, and the tritium plume originating at the FPL Turkey Point facility


FKAA is also concerned that current freshening activities are inadequate to successfully reduce the overall salinity in the CCS. FPL has previously stated that the elimination of hypersaline conditions in the CCS is critical to the success of reducing the extent of the hypersaline plume; therefore, failure to achieve this goal has risk implications to FKAA's municipal potable water supply wellfield. In the

Mr. Marc Harris, PE  
FPL Turkey Point Power Plant IWW/NPDES Permit No. FL0001562  
October 29, 2019  
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ORCA Response Letter, FPL acknowledges that failure to meet the freshening goal appears to be a distinct possibility due to the variability of rainfall. The only assurance of success from FPL is to cite the following DEP Consent Order language: "If FPL fails to reach an annual average salinity of at or below 34 PSU by the end of the fourth year of freshening activities, within 30 days of failing to reach the required threshold, FPL shall submit a plan to the Department detailing additional measures, and a timeframe, that FPL will implement to achieve the threshold." Essentially, FPL will remain in compliance with the Consent Order regardless of the success or failure of its remediation efforts and they offer no assurance, reasonable or otherwise, that current operation of the CCS can continue without risk or harm to the environment.

If you have any questions, please contact Kent Nelson, PE at [knelson@fkaa.com](mailto:knelson@fkaa.com) or at (305) 295-2140.

Sincerely,



Kirk C. Zuelch  
Executive Director

Attachments

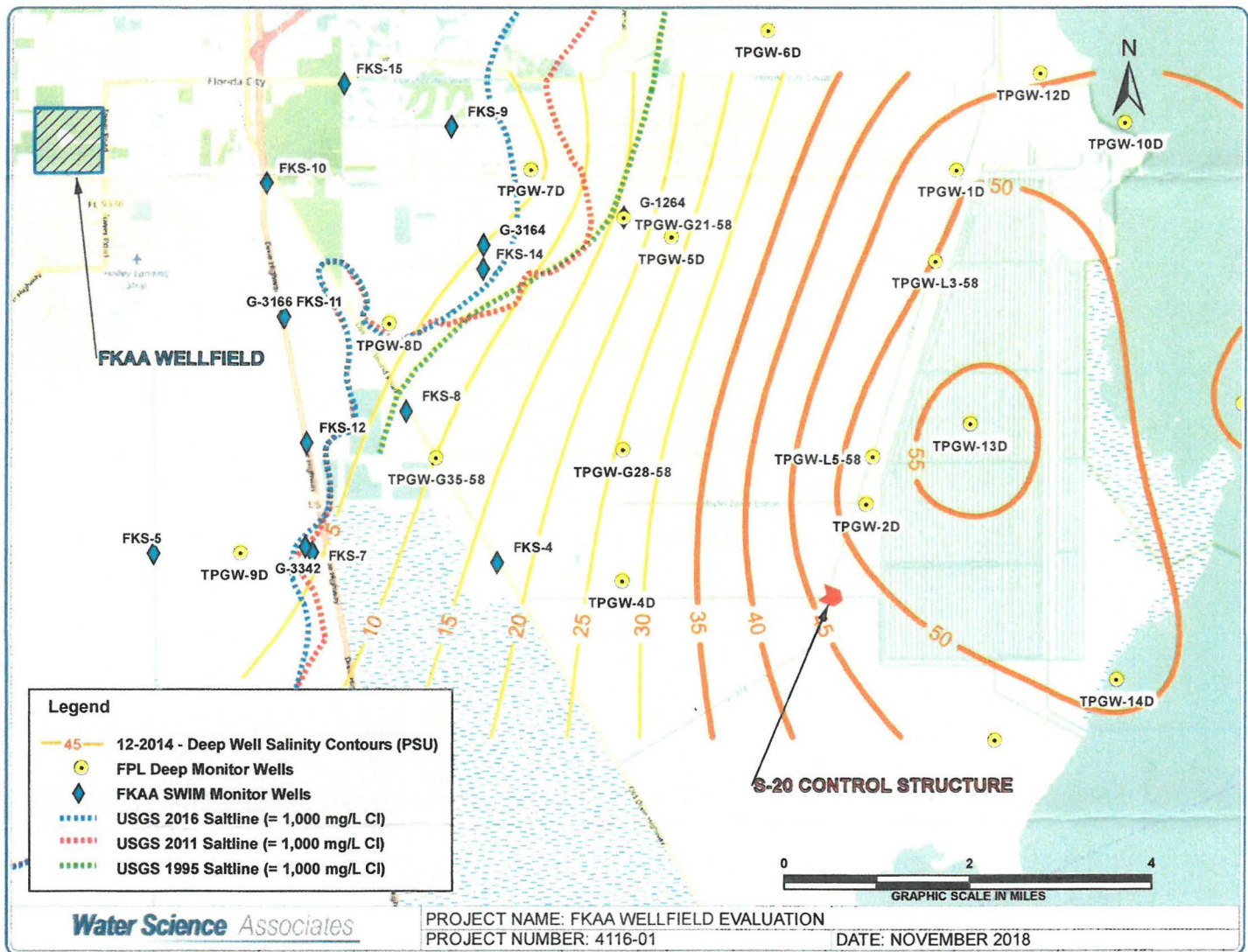
cc: Allan Stodghill, FDEP  
Frank Wall, FDEP  
May Ma, Director, Program Management, USNRC

J. Robert Dean, FCAA Board of Directors  
Antoinette M. Appell, FCAA Board of Directors  
David C. Ritz, FCAA Board of Directors  
Cara Higgins, FCAA Board of Directors  
Richard J. Toppino, FCAA Board of Directors

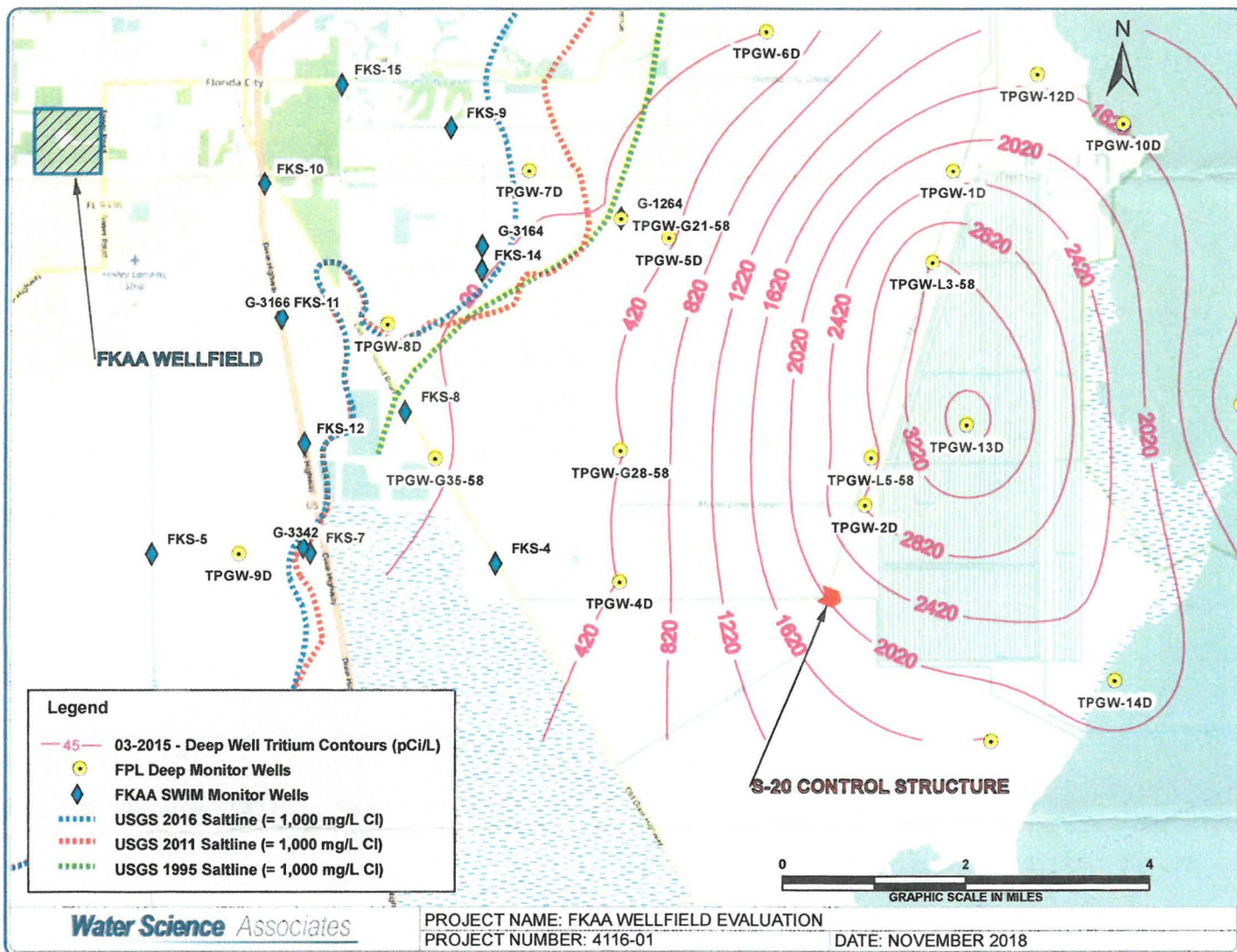
Sylvia Murphy, Monroe County Mayor  
Danny Kolhage, Monroe County Mayor Pro Tem  
David Rice, Monroe County Commissioner  
Heather Carruthers, Monroe County Commissioner  
Michelle Coldiron, Monroe County Commissioner  
Roman Gastesi, Monroe County Administrator  
Robert Shillinger, Monroe County Attorney

Gary List, Chairman, ORCA





MAP SHOWING FKA Wellfield, Monitor Wells, and Salinity Contours



MAP SHOWING FKA Wellfield, MONITOR WELLS, AND TRITIUM CONTOURS