

TurkeyPointLANPEm Resource

From: Grange, Briana
Sent: Thursday, July 24, 2014 2:01 PM
To: 'Foster, Stacy'
Cc: Gless, Jodie
Subject: RE: Turkey Point Aquifer Withdrawals and Canal Maintenance

Stacy,

Thanks for the quick turnaround. Would you say that I am characterizing the withdrawals correctly in the paragraphs below? I tried to combine your two emails plus my notes from Tuesday's meeting. If you have time to look it over, I would appreciate you correcting anything that's wrong or mischaracterized. Thanks!

Briana

Aquifer Withdrawals

The CCS is situated above two aquifers: the shallower saltwater Biscayne Aquifer and the deeper brackish Floridan Aquifer. A confining layer separates the two aquifers from one another. Turkey Point, Unit 5, uses the Floridan Aquifer for cooling water. The South Florida Water Management District (FWMD) granted FPL approval to withdraw a portion (approximately 5 million gallons per day [MGD]) of the Unit 5 withdrawal allowance for use in the CCS. FPL began pumping Floridan Aquifer water into the CCS in early July. FPL has also received temporary approval to withdraw 30 MGD from the Biscayne Aquifer, though FPL has not yet made use of this allowance.

FPL (2014d) also anticipates the FDEP to issue an Administrative Order requiring FPL to install six new wells that will pump approximately 14 MGD of water from the Floridan Aquifer into the CCS. Modeling performed by FPL consultants and FWMD indicates that in approximately two years, the withdrawals would reduce the salinity of the CCS to the equivalent of Biscayne Bay (about 34 parts per thousand [ppt]). Such withdrawals could also help moderate water temperatures.

From: Foster, Stacy [mailto:Stacy.Foster@fpl.com]
Sent: Thursday, July 24, 2014 1:26 PM
To: Grange, Briana
Cc: Gless, Jodie
Subject: Turkey Point Aquifer Withdrawals and Canal Maintenance

Hello Briana,

There are two aquifers below the Cooling Canal System (CCS). The shallow aquifer is call the Biscayne Aquifer (approximately 90 feet deep) The deeper aquifer is called the Floridan Aquifer. There is a confining layer between the two aquifers. The current approved temporary water withdrawals are approximately 5 MGD from the Floridan Aquifer. The future withdrawals that FPL will request approval for from the South Florida Water Management District will be 14 MGD from the Floridan Aquifer. FPL also received temporary approval for an additional 30 MGD withdrawal from the saline portion of the Biscayne Aquifer. FPL has not utilized the 30 MGD withdrawal.

FPL is evaluating the longer term solution to improve the conditions of the CCS. Potential solutions are increase in aeration and demucking the bottom of the canals.

Thanks,

Stacy M. Foster
Manager, Environmental Licensing and Permitting
Florida Power & Light Company

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From: Grange, Briana

Created By: Briana.Grange@nrc.gov

Recipients:

"Gless, Jodie" <Jodie.Gless@fpl.com>
Tracking Status: None
"Foster, Stacy" <Stacy.Foster@fpl.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

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Options

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