

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Conservation Cost Recovery
Clause

DOCKET NO. 20170007-EI

FILED: November 13, 2017

CITIZENS' POST-HEARING BRIEF

Pursuant to Order No. PSC-2017-0400-PHO-EI, issued October 20, 2017, the Citizens of the State of Florida by and through the Office of Public Counsel (“Citizens” or “OPC”), hereby submit this Post-Hearing Brief.

STATEMENT OF BASIC POSITION

The Public Counsel’s Basic Position in this Docket is:

1. FPL violated the law and customers should not have to pay \$132 million for the consequences of those violations.
2. The Environmental Cost Recovery Clause (“ECRC”) was not intended to provide recovery from ratepayers for a utility attempting to correct the harm it caused in the past through its own actions.
3. FPL knew or should have known that the operation of its Cooling Canal System (“CCS”) was causing harm and failed to take steps to mitigate or prevent the harm.
4. Only the costs related to *bona fide* containment and/or prevention activities prudently undertaken should be recoverable from customers.
5. The Retraction Well System (“RWS”) will not be effective to retract the hypersaline plume from the portion of the Biscayne Aquifer that lies outside the CCS and, thus, its cost is not a reasonable or prudent cost to be recovered from FPL’s customers.
6. One hundred percent (100%) of the cost attributable to remediating the damage caused by FPL should be borne by its shareholders. During the first ten years of the retraction and remediation effort, 100% of the cost of the Retraction and Freshening Remediation Project should be borne by FPL’s shareholders.

POSITIONS AND ARGUMENT ON DISPUTED ISSUES 10A-10E

ISSUE 10A: Should FPL be allowed to recover, through the ECRC, prudently incurred costs, if any, associated with the June 20, 2016 Consent Order between FPL and the Florida Department of Environmental Protection and the October 2015 Consent Agreement between FPL and the Miami-Dade County Department of Environmental Resources Management (as amended by the August 15, 2016 Consent Agreement Addendum)?

POSITION: *No. The jurisdictional portion of approximately 95% of the total O&M and capital expenditures of \$132,577,031 in remediation costs to clean up the Biscayne Aquifer should be disallowed. *

ISSUE 10B: Which costs, if any, associated with the June 20, 2016 Consent Order between FPL and the Florida Department of Environmental Protection and the October 2015 Consent Agreement between FPL and the Miami-Dade County Department of Environmental Resources Management (as amended by the August 15, 2016 Consent Agreement Addendum) were prudently incurred?

POSITION: *The costs of the Retraction Well System are remedial in nature and should not be imposed on FPL's customers. FPL's management knew or should have known that its actions in operating the CCS were creating material harm to the Biscayne Aquifer. FPL's actions and inaction over time placed the Company in violation of law, and therefore, constitute imprudence, such that the costs of addressing the consequences of that imprudence are not appropriate costs that should be borne by customers.*

ARGUMENT (Issues 10A and 10B addressed together):

FPL has not met its burden of demonstrating that the costs associated with the CCS Recovery Well System (RWS) and the Freshening activities (referred to herein as the "Retraction and Freshening Remediation Project" or the "RFRP") are recoverable through the Environmental Cost Recovery Clause ("ECRC"), much less are recoverable from customers under any circumstances.

FPL implemented the legally required Turkey Point Cooling Canal System pursuant to a settlement in litigation about the prospective implementation of a cooling water mechanism for the then-under-construction Turkey Point Nuclear Generating Units 3 & 4. In 1972, the United States Environmental Protection Agency issued FPL an NPDES/IWW (National Pollutant Discharge Elimination System/Industrial Wastewater) Permit to operate the canal such that FPL was allowed to discharge – through the unlined CCS – salt water into the aquifer below.¹ The relevant condition of the permit and agreements with the South Florida Water Management District (and its predecessor) was that the CCS and surrounding area were to be monitored for saltwater intrusion outside the boundary of the system and that the waters of the state (including groundwater) were not to be contaminated by the CCS. (EX 4 at 10; EX 5 at 3; 4-5; EX 47 at 2; 4-5).

Imprudent costs are not recoverable from customers.

It is undisputed that FPL had an obligation pursuant to its permit and per rule and statute to prevent the CCS' saline water from contaminating the G-II (potable) waters of the aquifer. Yet, the evidence shows that over a 45-year period FPL consciously, through willful indifference or negligence, ignored these requirements of law and allowed the CCS to severely contaminate the aquifer that serves a natural resource of the people of Florida and Miami-Dade County. Whether the acts were overtly intentional or a matter of uncaring neglect is irrelevant, and any notion that the consequence of a massive hypersaline plume was unintended by FPL is misplaced. The overwhelming evidence demonstrates that the decades-long harmful buildup of salt from the CCS outside the system was entirely foreseeable and would occur absent close attention and intervention by FPL.

The evidence also shows that FPL did not intervene or affirmatively take action on its own to seek permission to modify the CCS' operations to prevent harm (nor was it prohibited from so doing).² TR 415; 504-506; EX 4,5,47 and 71. FPL was, in fact, obligated to monitor and propose modifications that would prevent the harm that it ultimately caused. EX 4 at 13-14 (Condition VIII.5; EX 5 at 1-2³; Consultants hired by the company warned them about the westward migration

¹ The renewal of the permits was issued by the state (FDEP) in 1982. EX 57, Interrogatory 12.

² In opening statements counsel for FPL claimed that the OPC would have challenged any effort to undertake preventative measures on its own. Under cross-examination, witness Sole conceded that the OPC's track record belied that assertion. TR 264;746-749.

³ In relevant part the Fifth Supplemental Agreement provides:

of salt, tagged with the distinct tritium marker of FPL's nuclear-generated electric production. (TR 618; EX 70 at 56.) FPL inexplicably chose to ignore these warnings and calls for attention and action and, in fact, disregarded them for decades.

Unfortunately, FPL only followed the faulty advice from the consultants hired by its management without following the valuable recommendations to monitor trends and (assumedly) verify the advice and whether conditions might have changed. Citizens' observations are not given in hindsight. They are consistent with FPL's obligations in the agreements with the SFWMD and its obligations under rule, statute and permit to safeguard the waters of the state from harmful CCS activities. Citizens' hydrogeology expert testified that such a responsibility would have existed practically at all times during the operation of the CCS. TR 624-324.

Ultimately, without active monitoring and intervention by FPL, the salt from FPL's cooling canals foreseeably escaped the boundaries of the system and, through years of concentration and deposition, caused immense damage. Once the damage was discovered by the authorities, FPL was compelled to undertake action to clean it up. FPL agreed to the cleanup with the expectation that its customers would pay for the costs, even though the self-serving deal it "collaboratively" worked out with regulators requires no guarantees that its efforts will be initially effective. TR 354; 522-523. Nevertheless, FPL is banking on the Commission to force customers to pay for cleaning up the mess that FPL caused and which it could have prevented. FPL further expects the Commission to force customers to pay for any future trial-and-error costs of cleanup. TR 409-410; 412-413.

Remediation costs necessitated by violations of law are not recoverable from customers.

The Citizens are focusing its principal analysis of this issue on the DEP Consent Order.⁴ Assuming, *arguendo*, that the imposition of a requirement and resulting costs by collaborative agreement (such as a Consent Order or Agreement) does not *per se* preclude ECRC recovery, the costs of implementing required remediation activities to correct administratively determined

5. WHEREAS, under the prior Agreement, FPL has had continuing obligations to monitor for impacts of the cooling canal system on the water resources of the DISTRICT in general and on the DISTRICT'S facilities and operations in particular and to implement new operating criteria and/or engineering measures if the objectives of the 1983 Agreement are not being met.

⁴ The Miami-Dade County Division of Environmental Resource Management (DERM) Consent Agreement (2015) is similar but only addresses local water quality regulation violations (which are significant) FPL has acknowledged that the DEP Consent Order independently requires the RFRP activities and costs. TR 378.

violations of law (i.e. violations of permits, administrative regulations or statutes) are not eligible – nor should they be – for recovery from customers through the ECRC (or any other traditional ratemaking).

A finding by the Commission to allow recovery of remediation costs under these circumstances would be contrary to public policy in that it would eliminate any incentive for utility management to operate in compliance with the law. The DEP Consent Order independently requires the RFRP activities (TR 378) and it addresses the broadest violations of law in the permit requirements, groundwater regulations and statutes that DEP is responsible for enforcing. FPL has acknowledged that the remediation activities that are in dispute in this case (the RFRP activities) are specifically required by the agreement they entered into in the Consent Order after the DEP found in its June 21, 2016 Administrative Order that the company had violated the law. By a Notice of Violation and Orders for Corrective Action (“NOV”) dated April 25, 2016 (EX 12), DEP specifically charged FPL with a violation of Section 403(1)(b), F.S., (EX 12 at 3-4) which provides in relevant part that:

403.161 Prohibitions, violation, penalty, intent. –

(1) It shall be a violation of this chapter, and it shall be prohibited for any person:

(b) To ... violate or fail to comply with any rule, regulation, order, permit or certification adopted or issued by the department pursuant to its lawful authority.

Subsection (2) of the same section further provides that:

(2) Whoever commits a violation specified in subsection (1) is liable to the state for damages and for civil penalties as provided in s. 403.141.

Absent the Consent Order agreement to implement the RFRP, FPL would have been liable to the state of Florida for the damage to the Biscayne Aquifer. TR 375. Damage payments to the state – caused by a violation of the law – would not be recoverable in rates. The Commission should treat remediation costs in lieu of the payment of damages in the same way. Customers should be no more liable for the RFRP costs than they would for payment of damages for unlawful conduct.

Section 366.825, F.S., is the ECRC and governs an electric utility’s eligibility for recovery of environmental compliance costs from customers when not being lawfully recovered in base

rates. This statute allows recovery of “prudently incurred” costs to comply with environmental laws or regulations, which include:

federal, state, or local statutes, administrative regulations, orders, ordinances, resolutions, or other requirements that apply to electric utilities and are **designed to protect the environment**. *Id.*

(Emphasis added).

Prudence has been defined as "what a reasonable utility manager would have done in light of conditions and circumstances which were known or reasonably should have been known at the time the decision was made." *In re: Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc. to refund customers \$143 million*, Order No. PSC-07-0816-FOF-EI, 2007 Fla. PUC LEXIS 561, *121-122, citing, *In re: Investigation of Fuel Cost Recovery Clauses of Electric Utilities (Gulf Power Company – Maxine Mine)*, Order No. 13452.

In the 2007 *Progress Energy* case cited above, it was the lack of action which led the Commission to find imprudence. The record showed that the price of Powder River Basin coal was competitive to the types of coal the utility historically purchased; however, Progress Energy failed to utilize it, which resulted in excessive fuel costs. Due to this failure to act, Progress Energy was ordered to refund costs to its customers. Similarly, the record evidence in the instant case demonstrates that FPL regularly sampled and monitored the groundwater salinity at and immediately adjacent to the CCS for decades since 1978; therefore, it always had raw data in its possession which showed an increase in salinity trends and movement of the saltwater plume. TR 621-622; 730-741; EX 82. See also, Order No. 12240, 83 FPSC 238 (Florida Power Corporation (later Progress Energy Florida) “Dropped Test Weight Case”). The Commission noted that in trying to pin on the backs of customers the costs of a bungled operation related to the fuel storage pool that extended a refueling outage by 55 days that the company “consistently sought to lay the responsibility for this incident on any number of its employees.” The Commission rejected this evasion tactic, and found that the company defenses could not absolve the utility of its responsibility to adequately plan and supervise its operations. The Commission further supported its finding by referring with approval to a Virginia Commission decision on similar grounds that rejected an effort to pin the blame on individuals and thus be passed on to consumers. The Commission quoted the determination by the Virginia Commission:

However, it is quite a different thing to conclude that a utility should not be held accountable for unnecessary expenses resulting from improvident management decisions, or omissions. The very realization that mistakes are likely to occur, as

recognized by VEPCO, requires prudent planning and reasonable foresight by management to identify the areas where mistakes [*25] can occur, together with likely consequences, and to take reasonable precautions at least to catch those mistakes before the consequences ensue.

In re: Virginia Electric and Power Company, Case No. 19883, Opinion issued November 2, 1979.

Cited at 1983 Fla. PUC LEXIS 499, * 25-26. The Florida Commission concluded that:

FPC's failure to foresee the "great potential for severe economic consequences" that might reasonably flow from the improvident move of a heavy weight over the fuel assemblies and prevent the same, constitutes improvident management, and the utility's customers should not be forced to bear the resulting adverse economic consequences.

Like Progress Energy, FPL failed to prudently act on the information in its possession. In the Dropped Test Weight case, the utility was found to be imprudent for failure to plan and execute tasks to avoid foreseeable damage. The instant case is the same, in that here, FPL has failed to prudently act and should be similarly held accountable.

The burden of proof in a Commission proceeding is always on a utility seeking a rate change. *See, e.g., Fla. Power Corp. v. Cresse*, 413 So. 2d 1187, 1191 (Fla. 1982); *In Re: Fuel and Purchased Power Cost Recovery Clause*, Order No. PSC-2009-0024-FOF-EI, 2009 Fla. PUC LEXIS 161, *43. As such, it is the burden of the utility to show that extraordinary costs are reasonable and not due to management imprudence. *See, Id.*

In accordance with Commission precedent, FPL cannot evade responsibility for its failure to prevent the growth and spread of the hypersaline plume by claiming that regulators reviewed the CCS project and never raised any issues regarding increasing salinity trends. *See, In Re: Fuel and Purchased Power Cost Recovery Clause*, Order No. PSC-2009-0024-FOF-EI, 2009 Fla. PUC LEXIS 161, *36. In this Order requiring FPL to refund to customers the excess replacement power costs for an extended power outage, the Commission found that FPL had acted imprudently in its management and oversight of the Turkey Point plant where FPL allowed a contractor unescorted access to the nuclear plant, and that contractor later vandalized the plant, which caused an extended power outage. Although FPL argued that the Nuclear Regulatory Commission ("NRC") closely regulated FPL's security access controls and found FPL in compliance with NRC regulations, the Commission nonetheless found that FPL had failed to meet its burden of proof regarding prudent

management. The record in that proceeding indicated FPL either knew or should have known of red flags in the contractor's criminal history, but failed to properly scrutinize or supervise him.

The facts in this case are directly comparable. FPL claims that regulators such as the SFWMD and DEP regularly and robustly monitored its operations and it relied on those regulators to point out any problems regarding its contaminants. TR 711, 712, 721; 728-729. However, the record clearly shows that FPL, as the custodian of the property, was primarily responsible for monitoring its own business operations. TR 370-371; EX 12 at 4. At all times since 1974, FPL has been in possession of data demonstrating that saline and hypersaline water from the CCS was moving westward.

FPL witness Andersen testified that the saltwater intrusion which happened over forty years could not have been contemplated until 2010 when new technology was available to document it; however, this testimony is contradicted by the record evidence and demonstrates that FPL is the one attempting to benefit from hindsight review, not OPC. TR 869. In proving that the increasing salinity trends were apparent to any reasonable utility operator who properly examined the data in real time, OPC's expert relied upon FPL's own annual groundwater monitoring reports and data produced contemporaneously, i.e., at the time that FPL chose to ignore the data. TR 613; 616-617; 617-618.

FPL belatedly tried to claim that a 1996 United States Geological Survey ("USGS") interpretation of the saltwater interface indicated that it receded eastward towards the coast between 1984 and 1995. TR 869; EX 53. Under examination at hearing, Mr. Andersen was forced to concede the fine print in the source document made it clear that the perceived eastward movement could well be from the absence of comparative data and thus an unreliable depiction. TR 913. As discussed *infra*, FPL also possessed compiled trend data showing the growth and expansion of saline and hypersaline water from the CCS. EX 46 (Demonstratives 4-6); Ex 81. This evidence demonstrates that from 1978 through at least 1992, FPL had contemporaneous information in its possession which showed the hypersaline contamination of the Biscayne Aquifer from the CCS, but at the time the data was collected and in its possession, FPL failed to act and failed to seek modifications from regulators.

FPL witnesses Sole and Ferguson further admitted that FPL had violated the law and was required to remedy the damage emanating from that violation. TR 419-420; 425-426; 561; 568-569; EX 11 at 21-22. The DEP 2016 Administrative Order contained a specific finding that FPL

violated the law. The Notice of Violation issued by the DEP charged FPL with a statutory violation resulting from the company's violation of an administrative rule protecting groundwater quality and a material condition of its operating permit, as did the Consent Order. EX 12 at 3-4; EX 13 at 7.

Notably, the standard for ECRC recovery includes both prudence and public policy elements. See, Order No. PSC-2000-2092-PAA-EI, at 6.⁵ As discussed above, FPL management's imprudence caused the hypersaline plume to extend beyond FPL's border and resulted in notices of violation; thus, RFRP for which FPL now seeks to recover costs are the result of FPL's imprudent actions and should not be recoverable from FPL's customers. Public policy should not reward a utility for management failures by allowing it to admit to violations via consent agreements, collaboratively work out the details of a compliance plan (complete with "mulligans" that give the utility multiple chances to get it right (TR 402-413; EX 13 at 9-10)), and then obtain recovery of the related costs from the utility's customers. This would impermissibly and inequitably shift all the risk of bad management decisions – even ones that violate the law – from shareholders to ratepayers.

The facts evincing FPL's admitted culpability and responsibility for the violation that developed over decades are not in dispute. FPL acknowledges that its consultant hired to conduct monitoring, data collection, data analysis and to perform regulatory reporting and to advise the company regarding the groundwater impacts of discharges from the CCS made two unqualified, astounding assertions that were wildly inaccurate. These assertions were (1) that the level of salinity underneath the CCS and in the near vicinity would never exceed a salinity measure of 23 ppt (or the level of salinity in the adjacent surface and ground waters of Biscayne Bay and the underlying aquifer to the east of the CCS (EX 70, pp. 2-3) and (2) that stabilization would occur underneath the CCS that would pose no threat to the Biscayne Aquifer (in the form of a "massive ongoing salt water intrusion") to the west of the CCS. EX 70, pp. 69-70; 105-106. Witness Sole also testified that the misplaced assurances the company received from the consultant nevertheless

⁵ See also, Order No. PSC-07-0722-FOF-E1, issued September 5, 2007 (granting ECRC recovery of Progress Energy Florida's modular cooling tower). In addressing public policy consideration, the Commission acknowledged, at 8 a need to be vigilant about improper efforts to recover costs through the ECRC:

We understand OPC's concern that utilities have the incentive to pass many costs through cost recovery mechanisms, and we are attuned to that concern, but that cannot lead us to restrict the eligibility of environmental costs beyond what the statute contemplates. The ECRC statute does not require or even contemplate remediation costs emanating from unlawful activities to be recoverable.

“advised” the company’s actions (and regulators) over the course of decades. TR 711-712; 728-729.

The consultant did make a significant, crucial recommendation to FPL that went unheeded: namely, that the company should monitor the long term trend of salinity west of the CCS and it should track that information from the inception of the CCS. TR 733-734; EX 70 at 100-101. Tragically, this advice was largely ignored – at least with respect to any meaningful, critical reliance on the trending analysis that was conducted to monitor saline discharges from the CCS and to verify the stabilization and maximum salinity claims of the expert. As a result of FPL’s inaction, massive damage occurred. And at least \$132 million in remediation is now required on FPL’s first attempt at being compliant. However, OPC witness Dr. Panday provided expert testimony that creates substantial doubt that these efforts will be successful as proposed (TR 639-642) or that this exact freshening and retraction combination has been successfully used elsewhere to remove saline pollution. TR 648-649. In contrast, FPL offered no evidence that such a saltwater remediation combination has been successfully deployed elsewhere.

The bottom line is that FPL broke the law. It violated state groundwater protection rules. It violated its permit. It caused massive damage to the aquifer. These facts are not in dispute. In the face of these violations and in an effort to unload the repair costs onto the backs of its customers, FPL attempts to minimize its violations of law, rules and permit that it was found to have committed. FPL even tries to downgrade the harm by suggesting that the aquifer was degraded anyway. TR 368; 438; 469-470; 942-943. The company’s attempt to pivot from accepting responsibility in an effort to saddle blameless customers with these costs is a shameful disappointment and should be rejected by the Commission.

In addition, the company engages in multiple evasion tactics. Its first line of defense was an attempt to deny any violation. To that end, FPL filed two contradicting pieces of testimony in April 2016 with Mr. Ferguson and Mr. Sole flatly contradicting each other. Mr. Ferguson (citing the report of FPL’s expert hydrogeologist) testified the Company violated the law (TR 561; 569-570; EX 21 at 1; EX 80 at 1), while witness Sole – offered as an expert in “Florida environmental regulation and policy” – claimed that FPL had always followed the law, regulations and permits when operating the CCS. TR 285; 289; 711. He later conceded to the opposite. TR 419-420; 425-426. The crush of evidence in the form of multiple adverse factual and legal findings destroy this attempt to evade responsibility. Citizens submit that customers cannot be held responsible for the

damages caused by a utility's violations of law. The Commission should find that such actions are *per se* imprudent and that the costs of remedying them are unreasonable costs for customers to bear.

A further pivot away from responsibility surfaced when FPL changed course and subsequently claimed that there was no violation of something called an "operational condition" of any of its permits. TR 419-420. This qualifier is an apparent game-time invention of FPL and an obvious attempt to suggest that red is green when all reasonable observers recognize the color red when they see it. When pressed, FPL witness Sole could not point to any express language contained in the DEP orders or the charging documents distinguishing a so-called "operational" violation from some other variety of violation of the law. TR 420-426. He further acknowledged that there was no such distinction found in the DEP Enforcement Manual or the Civil Penalty Directive (also known as "Memo 923"). TR 766-767; EX 83; EX 84.

Not done with trying to explain the unexplainable, FPL then introduced a day-of-hearing new term that was not included as part of its prefiled testimony. FPL claimed for the first time at hearing that the violation – to which it has now admitted and for which it is spending \$132 million on damage remediation – was part of something called a "narrative" standard. By resorting to this purely self-serving ploy, FPL's hope appears to be that the easily-duped would find such a violation of this allegedly ephemeral standard to be harmless and perhaps "unintended."

In suggesting on the fly, for the very first time when he took the stand, this type of legal trap-for-the-unwary, Mr. Sole tries to breathe life into the construct by contrasting it to something called a "threshold" standard – or something "real" that in hindsight FPL would surely have followed.⁶ Again, no reference to such an artificial distinction exists in the charging document or in the assortment of DEP orders (Recommended, Administrative or Consent) or in Rule 62-520.400, F.A.C., or in Section 403.161(1)(b), F.S. There also is nothing contained in the DEP Enforcement Manual or Memo 923 that would direct the agency to treat differently or "go easier" on violators based on violation of a "narrative" standard. (EX 83; EX 84).

Not to be outdone trying to minimize its legal transgressions, FPL's evasive maneuvering resorts next to claiming – on rebuttal for the first time – a sort of victimization by asserting that

⁶ Here again, FPL takes for itself additional liberties with the luxury of hindsight claims while wrongly accusing the OPC and its witness of "Monday morning quarterbacking." TR 869; EX 53. See also TR 816 where FPL uses what can only be called "Wednesday morning quarterbacking" to proudly pronounce that it would have followed a mythical rule that never existed.

the massive, 45 year pile-up of highly concentrated salt was “unintended.” (TR 414, 426-427; 718-719). It tries to portray this situation as just “stuff happens” and that it’s no one’s fault. This translates to code words for “stick the customers with 100% of the bill,” pure and simple. Notably, FPL does not claim that the salinity pollution was “unexpected” or “unforeseeable;” just that FPL did not mean for it to happen. Clearly, this is a blatant effort by FPL to evade responsibility for cleaning up the damage and to avoid having its shareholders bear the costs of cleaning up FPL’s damage. The evidence abundantly refutes this absurd claim as discussed below.

Perhaps the most alarming aspect of this pivot and sleight-of-hand charade is the effort by a former DEP Secretary and senior FPL and NextEra executive to disparage the legal effect of the Consent Order as something akin to “we signed it but we really don’t mean it.” FPL, through Mr. Sole, stubbornly clings to the notion that while it effectively pled guilty to violating the law, the company claims that “scientifically ... [it] has yet to be proven” that the CCS caused or was the source of the westward movement of the saltwater interface or was even the source of the hypersaline plume in the aquifer outside the CCS boundary. TR 368; 376. Yet, FPL agreed to accept the findings so it could (in the convenience of hindsight) “get on with” the business of experimenting with unproven remediation efforts using its customers’ wallets. TR 436-437.

The Commission should reject FPL’s multi-pronged efforts to skip out on its responsibility for damage caused by the company’s own violations of the law. Shareholders hire management which has a duty to the customers and to the State of Florida to act prudently in its operation of the CCS and in so doing to cause no harm.⁷ The Commission must hold the company accountable for its failure in fulfilling this duty. If the Commission does not impose accountability, it will mean that there is effectively no limit to the actions a utility can take in violation of the law, and will render investor-owned utility customers in Florida nothing more than an inexhaustible “blank check” to pay for management’s wrongdoings. See, *In re: Long Island Lighting Co.*, 1985 N.Y. PUC LEXIS 40, *6 “A utility’s motivation to act prudently arises from the prospect that imprudent costs may be disallowed.”

The ECRC prohibits remediation costs for decades-long past harm caused by imprudence.

The Citizens further submit that the ECRC is not a vehicle designed to allow costs, resulting from past harm caused by the actions and inactions of a utility’s management which is

⁷ See, Section 403.021, F.S.

subjected to sanctions for legal violations, to be recovered under some broad rubric of “environmental compliance.” The statute is designed to allow timely recovery of costs imposed by prospective regulations to prevent harm.

There is no better illustration of the Commission’s interpretation of the ECRC to be prospective in nature than its decision in Order No. PSC-2011-0080-PAA, Issued January 31, 2011 (denying FPL ECRC recovery of Scherer Turbine Blades upgrade (“Scherer Turbine Blade Order”). In emphasizing the prospective nature of the compliance activity the Commission reviewed several prior decisions at 3-4, evincing its policy.

As the following review of our decisions indicates, and of particular importance to this case, we have consistently enforced the requirement that projects eligible for ECRC cost recovery must be ***required to comply, or remain in compliance with***, a governmentally imposed environmental regulation.

In Docket No. 980007-EI, In re: Environmental Cost Recovery Clause;⁸ we approved Gulf’s additional groundwater monitoring equipment ***to continue to comply with*** an existing environmental requirement, because greater treatment capacity was needed.

Although the NRC requirements had not changed, FPL requested recovery of the costs for a new turtle net project, which included installation of a new net of sturdier material and support structures, conducting a bottom survey of the intake canal, maintenance dredging the canal in the vicinity of the net, and installing a sand pump near the net. These additional activities were not specifically required by Appendix B, but FPL explained that they were necessary to ensure that the net worked properly ***so that it could continue to comply with its NRC license***.⁹ In this year’s ECRC docket FPL has requested approval of additional modifications to its Turtle Net Project, which FPL asserts are ***necessary to remain in compliance with*** the requirements of Appendix B.

Finally, in Docket No. 060162-EI, In re: Petition by Progress Energy Florida, Inc. for approval to recover modular cooling tower costs through environmental cost recovery clause,¹⁰ we approved Progress Energy Florida’s (PEF) modular cooling tower project ***in order to continue compliance with*** wastewater discharge standards required by the Florida Department of Environmental Protection (DEP). PEF’s discharge permit limits the temperature of discharge water into the Gulf of Mexico

⁸ Citing in the original, to Footnote 5, Order No. PSC-98-1764, issued December 31, 1998.

⁹ Citing in the original, to Footnote 6, Order No. PSC-02-1421-PAA-EI, issued October 17, 2002.

¹⁰ Citing in the original, to Footnote 8, Order No. PSC-07-0722-FOF-EI, Issued September 5, 2007.

from the Crystal River plants to 96.5 degrees Fahrenheit. Increased inlet water temperatures from the Gulf during the summers of 2004 and 2005 forced PEF to reduce the output of the plants *in order to remain in compliance with* its discharge permit. The modular cooling towers along the discharge canal provided additional cooling capacity that allowed PEF to comply with its permit and avoid numerous, expensive derates of its base load generating units.

(Emphasis added)

FPL's collaborative deal to repair 45 years of damage it caused cannot by any stretch of the imagination be said to allow it to "remain in compliance" or "continue to comply." The very fact that it was out of compliance makes its RFRP costs ineligible for ECRC recovery under Commission precedent.

The massive salt plume constitutes past harm caused by FPL's lack of compliance and the \$132 million cost to clean it up does not qualify for recovery since it is for attempted remediation. The RFRP simply does not qualify for cost recovery for the harm has already occurred. Protection of the environment has failed at this point.

The Commission has allowed certain specific clean-up, abatement and remediation costs to be recovered in the context of very specialized environmental regulations that are highly prescriptive about reporting and cleanup of actively monitored and reported spills and contamination. See, Order PSC-95-1051-FOF-EI, issued August 24, 1995 ("Order 95-1051")¹¹.

¹¹ At one point witness Sole attempted to liken the CCS to a leaking fuel storage tank (TR 422), but the effort at analogy is inapposite. The specific requirements of the NPDES permit and the SFWMD monitoring requirements for salinity impacts on the aquifer, bear no relationship to the industry-wide fuel tank leakage phenomenon. The highly specific CCS circumstances likewise bear no resemblance to the legacy, industry-wide manufactured gas cleanup costs that the Commission has traditionally allowed successor companies to recover in the natural gas distribution sector. In a 1986 Peoples Gas rate case, the Commission likened the manufactured gas cleanup ("MGC") costs to the costs of decommissioning a nuclear plant and noted the lack of any rules governing the disposal of the coal tar byproduct:

Prior to the availability of natural gas in Florida, a gas manufactured from coal or oil was distributed by companies which served many of those communities in which Peoples now provides natural gas service. These manufactured gas production plants became obsolete and were abandoned when natural gas became available in 1959 and 1960. While these plants were in production, there were few, if any, rules in effect governing their daily operations, including storage or disposal of by-products principally consisting of tar residues. If possible, the ratepayer should pay anticipated removal costs while these plants are in use as is this Commission's policy with decommissioning of nuclear power plants. However, waste cleanup may not have been anticipated while in use and in this case the need for such cleanup is more likely to be discovered after the facility is retired from use.

1986 Fla. PUC LEXIS 586, *32.

In that case, FPL was allowed to recover costs pursuant to then Rule 62-762.820, F.A.C., for the cleanup of fuel oil discharges from above ground storage tanks which was a highly regulated and long-established activity. Order 95-1051 at 5. Gulf Power was similarly allowed to recover the abatement expenses to reduce and control lead and copper contaminant in the water at certain plants. Order 95-1051 at 5-6.¹² However, neither of these apparently highly localized circumstances bears any resemblance to a massive 45-year discharge of salt to a major water resource.

Likewise, there is nothing that suggests the Legislature intended to allow companies – through a statute with a clearly preventive orientation – to claw back over decades and force customers to pay costs for remedying past environmental damages caused by a disregard for the law. What would effectively resemble retroactive ratemaking¹³ is not contemplated in the prospective language of the ECRC. Commission precedent has been consistently limited to authorizing costs for forward-looking measures such as new laws or changing scope of requirements that require additional costs to remain in compliance. The Commission has also been careful to limit recovery to environmental regulations that are uniformly defined as “requirements” that must be met in order for a company to continue to comply or remain in compliance with them. See, Scherer Turbine Blade Order discussion, *supra*.

Additionally, any notion that a consent order, agreement or decree is the equivalent of an environmental regulation may only be a valid position to take when the consent order or decree has prospective application to abate or eliminate future impacts. The Commission addressed this in 2005 when it allowed the prospective implementation of federal Clean Air Act (CAA)

The operation of the CCS and resulting violation of law occurred in the context of objective rules and permit requirements. The MGC line of cases allowing customer recovery do not apply.

¹² The cited environmental regulation was Rule 17-551, F.A.C., which was later transferred to Chapter 62, F.A.C. See also Order No. PSC-98-1764-FOF-EI, Issued December 11, 1998 where Gulf Power was allowed to recover the cost of a second mobile groundwater treatment system pursuant to what the order describes as “necessary to comply with governmentally imposed environmental requirements. This is consistent with the precedent discussed in Order No. PSC-2011-0080-PAA, *supra*. The Order indicates that recovery of the initial mobile groundwater treatment facility was authorized in Order 95-1051. In the earlier order the facility was described as for “Substation Contamination Investigation” and “is expected to reduce O&M approved activities for groundwater investigation and remediation.” The Commission does not indicate if the monitoring and treatment activity is intended to mitigate future harm or clean up damage. No other description or dollar amount is provided.

¹³ Essentially these remediation costs have been accruing over decades, effectively imposing a liability on the company. FPL now seeks to retroactively recognize these costs currently (in 2016-2018 and beyond) and to recover from a future generation of ratepayers who neither had responsibility for causing them nor received any benefit from them.

modifications for Tampa Electric to avoid the shutdown of Big Bend Unit 3 (by 2010) and Units 1 and 2 (by 2013) absent the installation of scrubbers called for by the company's Consent Decree with the EPA. There was no past clean up obligation imposed by that Consent Decree. Order No. PSC-07-0499-FOF-EI, issued June 11, 2007, at 5.

The Legislature, through the ECRC statute, and the Commission in implementing that law recognize that when the cows are out of the barn and off the property, it is too late to utilize the express or even implied intent of the law creating the clause to recover costs resulting from this type of historical, long-term damage. The harm cannot now be prevented, nor can the environment be retroactively protected; it can only be cleaned up. As currently proposed, FPL will not even be able to reverse the damage it has caused. That is an entirely different proposition compared to the Tampa Electric examples. In the instant case, the ECRC statute does not apply, nor can it be interpreted, to impose the clean-up costs on FPL's customers.

The ECRC does not allow recovery for costs caused by knowing, negligent or willful disregard for evidence of preventable harm.

The simple proposition that the costs to remediate harm that flows from a violation of law are not recoverable under the ECRC -- or from customers at all (regardless of the mechanism) -- is further bolstered by the lengthy factual record that demonstrates overwhelmingly FPL had clear knowledge of or "had reason to know"¹⁴ the foreseeable harm -- if not violations of law -- being caused by its operation of the CCS. This knowledge -- either actual or constructive -- is pervasive in the data (and associated analyses) that was collected by FPL as a requirement of its permitted operation of the CCS. However, in an effort to evade shareholder responsibility for the clean-up of the environmental damage, FPL now pleads ignorance, claims it was not aware for 41 of the 45 years that the salt plume was building up (or had built up), and that it did not know its CCS was causing the problem.

While the Citizens submit that actual knowledge (in the form of scientific proof of the extent and scope of the harm and the precise source) is not a strict requirement when one has constructive knowledge ("[knew or] should have known" or "had reason to know"), the record is

¹⁴ This is apparently the standard that FPL expects others (namely environmental regulators) to follow and it seems only fair to hold the company to the same standard. EX 61, Staff Interrogatory 54. FPL writes: "Accordingly, all persons engaged in construction, design and environmental permitting in the *region would have reason to know of the existence of saline groundwater in this area.* (Emphasis added).

replete with evidence that FPL knew or should have known that its CCS was essentially a 24-hour/365-day hypersalinity “pump” that was continuously dumping massive amounts of salt into the aquifer. In fact, FPL knew from the earliest days of operating the CCS that it was dumping salt into the aquifer. EX 70, pp. 55-57; 61; 68-69; 106. Moreover, the company was told from the beginning that it needed to constantly monitor the long term trends of salinity increases. TR 733-734; EX 70 pp. 100-101. FPL had a duty to take action to prevent harm with the knowledge it possessed. *First Fed. Sav. and Loan Ass'n of Miami v. Fisher*, 60 So. 2d 496, 499 (Fla. 1952), citing, *Sapp v. Warner*, 144 So. 481 (Fla. 1932); see also, *Potter v. Ellenthal and DEP*, 2012 Fla. Div. Adm. Hear. LEXIS 27, *24-25. “Actual notice is also said to be of two kinds: first, express, which includes what might be called direct information and second, implied, which is said to include notice inferred from the fact that the person had means of knowledge, which it was his duty to use and which he did not use, or as it is sometimes called, implied actual knowledge.”

Citizens’ hydrogeological expert Dr. Panday testifies that by at least 1990 or 1992, FPL should have known that saline water from the CCS was intruding into the groundwater outside of FPL’s property. TR 616-618. Tritium markers were known as early as 1976. TR 618. As noted by Dr. Panday and acknowledged by FPL witness Sole, steadily increasing salinity concentration trends showing hypersalinity inside and outside the CCS were available to FPL. TR 622; 734-738; EX 46, Demonstratives 4-6; EX 81; 82.

Whether willfully or carelessly, FPL ignored this advice to both collect and analyze long term trend data that showed increased levels of salinity year after year. As a result, FPL blithely let the problem stack up (literally) until it could no longer be ignored. These lapses were forced to the surface nearly two decades later in approximately 2008-2009 when the company decided to uprate the Turkey Point Units 3&4 and the problem could no longer be overlooked. Effectively, FPL improperly engaged in willful indifference about the hypersaline plume growing and spilling out of its borders. By ignoring the recommendations of its own hired experts, FPL failed in its obligations to its ratepayers. See, *Association of Bus. Advocating Tariff Equity v. Public Serv. Comm’n*, 527 N.W. 2d 533, 538 (Mich. App. 1994).

In addition, Dr. Panday documents the evidence that was sitting in plain sight. Exhibit 81 contains the elegantly simple evidence that was continuously in FPL’s possession. No hindsight or after-the-fact analysis is needed to recognize that FPL ignored the warning signs. In fact, witness Sole agreed that the L-3 well to the west of and outside the CCS boundary showed

hypersalinity by 1990. He also acknowledged that two sets of data in FPL's possession showed the level of hypersalinity inside the CCS was in many cases more than double the level of 23 ppt that Dames & Moore guaranteed would be a ceiling. TR 733-737.

The same bogus guarantee applied to the salinity above 23 ppt outside the CCS. Questioning of FPL's hydrogeologist by Commissioner Polmann illustrated that this "guarantee" was somewhat qualified. FPL witness Andersen read the following contingency clause from the 1978 Dames & Moore report under the Commissioner's guidance:

"... provided ... the hydrologic conditions operating on chlorinity in the past four years [before 1978] have the same magnitude of influence in the future."
EX 70 at 70.

Interestingly, when Mr. Sole was quoting a related stabilization concept in an effort to rebut Dr. Panday, he failed to recognize that Dames & Moore had in fact inserted the qualifier. Belatedly, under cross examination, Mr. Sole noted that "conditions changed." TR 293, 326, 352, 757. That is exactly the point – conditions changed. FPL assiduously ignored the very trends that were trumpeting the changing hydrologic conditions on chlorinity. TR 619-628. As a result, massive hypersaline intrusion occurred under its very nose.

As Dr. Panday points out, in so many words, the proverbial canary in the mine died in 1990 and the company walked past the carcass every day for another 20 years. Dr. Panday further testified that, from a hydrogeological standpoint contemporaneously with the collection, analysis and reporting of the trending data, the unmistakable signs of increasing salinity trends were essentially sitting in plain view. He notes that the data from wells west of the CCS boundary were exhibiting increasing salinity readings well above that of the supposed 23 ppt hypersalinity ceiling guaranteed by Dames & Moore in 1978. (EX 46, Demonstratives 4-6; EX 82 TR 622; 734-738. Additionally, that same data that was in FPL's possession from 1972 to the present showed the CCS became hypersaline no later than 1974-1975 and except for 1985-1986 remained hypersaline in an ever-increasing, steadily upward trend. (EX 81; TR 82) Both sets of data impeached the so-called stabilization suggestion that Dames & Moore put forth in 1978.

By 1990, FPL had abundantly sufficient information from even a cursory review of the data to know that stabilization was a bogus theory with respect to the CCS's interaction with the aquifer and that there was no ceiling on the level of hypersalinity. The principles of density and salinity exchange that were discussed in 1978 (EX 70, pp. 68; 102-105 coupled with the data,

should have alerted even the least astute and careless operator of a facility such as the TPCCS that something was amiss and that more investigation and remedial or preventative action should have been considered nearly 30 years ago. This evidence is not in dispute and its existence should dispel any notion that FPL was caught unawares with an “unintended” consequence of operating the CCS. Ignorance is not a viable defense against absorbing the \$132 million cost of the RFRP.

The Commission should not support ECRC recovery of costs due to FPL’s claimed reliance on regulators to give them direction.

FPL’s further brazen suggestion that it relied on regulators’ hand-holding to tell it when the CCS was causing harm should be immediately rejected out of hand. FPL had a stand-alone obligation to comply with its permit, and the applicable administrative rules and statute. FPL’s position is particularly untenable considering that, from 1972 to date, FPL was the party responsible for collecting data and providing its interpretations to regulators in the form of summaries or annual reports.¹⁵ In fact, from 1983 to 2009, FPL was not required to provide raw data to regulators, unless it was requested. Where FPL was the owner and custodian of the property, was the party collecting the water samples, and bore responsibility for operating the plant within the law, FPL was imprudent in failing to act where it knew or should have known of increasing salinity trends and the growth of the hypersaline plume contamination.

Even where regulators performed oversight for over 40 years, those regulators relied on FPL to collect the raw data, analyze the data, and then provide summaries or interpretive reports to the regulators. TR 753. FPL was always in primary possession and control of the data which showed the increasing salinity trends at the TPCCS, and therefore, cannot hide behind regulators for its failure to prudently manage the CCS.

¹⁵ Per the original 1972 Agreement between FPL and the Central and Southern Florida Flood Control District (“FCD”), FPL was required to collect and maintain records of monitoring data, para C(3); and the data was to be furnished to FCD by FPL, C(4) and (5). EX 71; The 1983 Fourth Supplemental Agreement between FPL and South Florida Water Management District (“SFWMD”) required FPL to collect, review and analyze the data and to submit an annual summary report to the District – the summary report was not to contain raw data unless requested by the District, C(4)-(5). EX 47; The 2009 Fifth Supplemental Agreement between FPL and SFWMD required FPL to collect the data and provide it to the District; FPL was also to review and analyze the data, and submit reports to the District, C(3) – (4). EX 5.

Notably, FPL failed to provide testimony from any manager of the water monitoring regulatory program.¹⁶ As such, FPL failed to meet its burden of proof. Dr. Panday documented at least a three-year period where the company failed to even supply the District with the required reports. TR 628. Clearly, for whatever reason, the District was not actively monitoring the CCS or the growing saltwater plume if they did not even take notice that the required reports were not filed in those years. This regulatory failure casts grave doubt on FPL's weak effort to shift blame away from itself. FPL witness Sole provided little to no insight regarding FPL's compliance with its water monitoring obligations. He could offer no explanation concerning FPL's failure to timely file reports from 2005 through 2007.¹⁷ TR 755, lines 11-16. When asked about his investigation into why the reports were late, Witness Sole stated "...I never could get an answer. There is turnover at some of the folks at Turkey Point that run the environmental program, as a result, getting a clear answer as to why they weren't submitted, other than they affirmatively were not submitted until late in 2 – in early 2008." TR 790-791.

Astoundingly, witness Sole even blamed the SFWMD for the failure of the Interceptor Ditch. TR 414-415. He did this despite the express obligation of FPL to monitor and suggest engineering solutions if things were not occurring as expected. Yet, he admitted that FPL had designed the ditch, and that FPL originally promised to "... hold the DISTRICT ... harmless ... from ... the performance by FPL ... under this Agreement, or ... the construction, operation, maintenance ... alteration, modification ... of any existing ...interceptor ditch ... or abatement, remediation or mitigation made necessary by the cooling canal system ..."¹⁸ Nonetheless, FPL is

¹⁶ FPL offered only the testimony of an outside contractor hired to conduct technical work at the plant – witness Andersen. Even so, Andersen testified that, despite doing work at Turkey Point starting in 2004, he did not become involved in analyzing the CCS until 2008. As such, Andersen did not, and could not, provide testimony regarding management decisions. He is not an FPL employee. In fact, FPL has referred to Andersen and his company, TetraTech, as "independent" experts, despite the fact they were hired and paid by FPL. TR 727.

¹⁷ Also FPL failed to produce groundwater monitoring reports from 1980s and from 1993-2001, despite multiple discovery requests; FPL was purportedly unable to locate the reports for 1993-2001 and failed to provide an explanation as to the others. Dr. Panday was able to obtain the data for the years FPL failed to provide reports to OPC via other documents (FPL's Response to Staff's Interrogatory No. 2 (EX 57); Chin 2016, figure 10 (EX 46, Demonstrative 5); Golder 2011c; (TR 633) Dames & Moore 1990 (TR 623) FPL should not now be allowed to benefit from its failure to produce its own reports. If it can find the Dames & Moore report from 1978, it should have been able to find the reports it wrote later than 1978.

¹⁸ The first full sentence of Paragraph II(E)7(c) provides that: FPL shall indemnify, save and hold the DISTRICT and its directors, employees and contractors (the "Indemnified Parties"), harmless and will defend against any and all claims, damages, costs, expenses, and liability arising from (1)

decades later before a different regulator trying to pin blame on the District in a desperate effort to shield shareholders from the enormous cost of errors in its management's judgement and prudence. The unmistakable import of the indemnification clauses in the SFWMD Agreements was that FPL agreed to shoulder 100% of the responsibility for the operation of the CCS and associated interceptor ditch.

Furthermore, FPL has pointed to no provision of law, permit or in the agreement that absolves the company of fully complying with all legal requirements in its operation of the CCS. Reliance on regulators was at the company's risk and, to some degree, was a circular proposition inasmuch as the regulators were reliant on the data and analysis reporting that FPL conducted. FPL's record on providing data to SFWMD, the groundwater regulator, is also suspect at best. Dr. Panday also pointed out FPL's self-serving and diversionary summaries that glossed over the trends showing the increasing levels of hypersalinity both inside and outside the CCS. TR 619-624. FPL's response was to change the subject and accuse Dr. Panday of attacking the regulators while trying to divert attention from the central point that the data demonstrated the trends that belied the 1970s consultants' theories that FPL claims to have been advised about. Nowhere could FPL point to overt approval of the 1978 stabilization and hypersalinity ceiling theories as having any merit. FPL's only defense – if it can be called that – is that the regulators did not say anything. TR 751.

This additional blame-shifting is not unlike the defense that was put forth in the 2008 drilled hole sabotage case where the company tried to hide behind the skirts of the NRC in arguing the security vetting process was approved by the NRC and they (the NRC) did not point to any gaps or lapses. The Commission rightfully rejected this defense and found that FPL had access to information that indicated the contractor/saboteur had a history of criminal mischief that should have excluded him from unescorted access that allowed him to damage the plant. See *In Re: Fuel and Purchased Power Cost Recovery Clause*, Order No. PSC-2009-0024-FOF-EI, 2009 Fla. PUC LEXIS 161, *36. The same result should apply here. FPL should not be allowed to shield its

the performance by FPL or its contractors, agents, or representatives of FPL's obligations under this Agreement, or (2) the construction, operation, maintenance, replacement, alteration, modification, or relocation of any existing or future interceptor ditch, monitoring facility, water transfer facility, or abatement, remediation or mitigation made necessary by the cooling canal system or required under this Agreement. EX 5 at 9. This is an enhanced version of the original provision in paragraph A(17) in the 1972 Agreement. EX 71. A similar indemnification provision is found in Paragraph A(7) the 1983 Agreement. EX 47 at 3.

shareholders from the mismanagement that its management condoned for 45 years by making the customers pay to clean up the mess FPL caused.

Other alleged mitigation costs (\$1.5 million “donation” and land conveyance) should be disallowed if no customer benefit is realized.

Part of the deal that FPL cut with the DEP included a “donation” of \$1.5 million in (what it hopes the Commission blesses as) ratepayer funds for general saltwater intrusion mitigation in the Turkey Point vicinity as a of the Consent Order. TR 457-460; EX 13 at 14; EX 61, (Staff Interrogatory No. 62). Mr. Sole could provide no details; however, he did acknowledge that the FPL ratepayers would receive no direct benefit from the “gift” to other wrongdoers causing saltwater intrusion. TR 460. He also acknowledged that FPL need not be the cause of the saltwater intrusion being mitigated in order for the funds to be withdrawn from escrow and spent. TR457-458. FPL utterly has failed to demonstrate why these costs are reasonable and prudent costs of generation, transmission or distribution of electricity and should be borne by its customers. The Commission only has authority to allow recovery of such costs if they are a necessary, reasonable and prudent cost of service to the public. See, 366.02(1); 366.041; 366.06, F.S.) The \$1.5 million gift cannot be passed along to FPL’s customers. FPL’s shareholders should instead be given a hearty “thank you” from the Commission for its charitable contribution to the people of southeastern Miami-Dade County.

FPL also agreed to convey land to the SFWMD as a condition of the Consent Order. TR 461-464; EX 13 at 12; EX 61, Staff Interrogatory No. 62. FPL claims not to be seeking any cost associated with this transaction; however, the Consent Order allows for FPL to convey the property at below market value. The Commission should reserve jurisdiction to review this transaction in a future proceeding. To the extent FPL records a loss on the transaction and then seeks to pass that cost along to customers, it should be clear from Commission’s ECRC precedent that such a transaction is different in scope and character from any ECRC project that has been approved historically through revenues or as part of the RFRP (e.g., Project 42). As such, any resulting loss (cost) would need to be reviewed under the Commission’s new scope and case-by-case policy discussed *supra*.

The entire \$132,577,031 of 2016-2018 remediation costs should be disallowed.

Citizens' bottom line position in this proceeding is that the costs of both the RWS and the freshening wells (including expense and capital) are the sole responsibility of FPL's shareholders. The Commission should disallow recovery in this docket – as being imprudent – for the costs that FPL has incurred and will incur in 2016-2018 for the RFRP. As demonstrated by the evidence, these costs are required to mitigate the harm that FPL caused, with actual or constructive knowledge and with no effort made to prevent the harm for at least 40 of the 45 years of the CCS' operation. The record establishes that these costs are at least \$132,577,031. TR 267;EX 57, Staff Interrogatories 9-10; EX 67.¹⁹ OPC submits the expert testimony demonstrates that the freshening wells are the major contributor to any retraction (remediation) that FPL's own modeling shows will occur over the next ten years. Accordingly, these costs should be recorded as remediation and borne by shareholders.

Any new costs of prevention or containment that are attributable to the RWS or the freshening activities, once retraction has occurred and the remediation objectives of the Consent Order have been fulfilled, can be recorded as an improvement to the CCS and evaluated for recovery under the appropriate ratemaking mechanism. The 20 year approach for allocating costs in this case is illogical in that FPL attempts to reach into years 11-20 of an artificially determined 20-year horizon and pull forward future attributes to assign to current activities. This is improper and is yet another effort by FPL to lighten the load on shareholders to correct the harm it actually caused. The insult to injury is exacerbated when customers are also faced with providing an equity reward to shareholders for true remediation costs inappropriately capitalized as “prevention/containment” to fix the problems FPL caused. Baron Munchhausen²⁰ would have been proud of the irony.

¹⁹ See discussion *infra* under Issue 10C for derivation of the dollar amount for disallowance.

²⁰ Whether true or not, the real life Baron (Hieronymus Karl Friedrich von Munchhausen) is famously quoted as saying regarding to efforts to achieve an armistice in the Russo-Turkish War (1735-1739) that “Only I can stop this war because I am the one who started it!” FPL shareholders would be pleased to earn a tidy profit on fixing a problem they caused.

ISSUE 10C: Should the costs FPL seeks to recover in this docket be considered part of its Turkey Point Cooling Canal Monitoring Plan project

POSITION: * No.*

ARGUMENT:

FPL would like the Commission to find that Order No. PSC-2009-0759-FOF-EI, issued November 18, 2009 (“2009 Order”), is dispositive of the issue relating to the recovery of the remedial RFRP costs required by the 2016 DEP Consent Order. In 2009, the Commission approved the TPCCMP as a stipulation based on the testimony of FPL witness Randall LaBauve. Testimony in this 2017 hearing conclusively proved the reason for the 2009 project was strictly limited to monitoring the groundwater impacts of the pending uprate of the Turkey Point Units 3&4 nuclear units and nothing more.

To begin, ECRC precedent related to the Turkey Point CCS states that eligibility for recovery on any project is to be considered on a case-by-case basis. See, Order No. PSC-2009-0759-FOF-EI, p. 13. Therefore, the Order relied upon by FPL plainly on its face refutes any assertion that the transformation of the \$5 million purely monitoring TPCCMP into the \$132 million (and remediating) RFRP was contemplated and pre-approved in 2009.

The TPCCMP was clearly called a “monitoring plan” for a reason – monitoring was the activity that was proposed by FPL and monitoring was the activity the Commission approved. FPL’s subsequent, repeated attempts to “re-brand” the monitoring project, by changing the name from Project 42 to the TPCCMP to the “Cooling Canal Project” does not change the fact that the costs before the Commission in 2009 were in fact for monitoring work, and that a major investment of over a hundred million dollars in remediation 6-8 years later clearly constitutes new work requiring independent vetting, and then approval or denial by the Commission.

The 2009 TPCCMP costs pale in comparison to the costs being sought in 2017 – both in the dollar amount and scope of work. If FPL can put ratepayers on the hook for upwards of \$200 million or more by simply hinting in a pleading many years prior that the monitoring program might find a violation to be remedied, then every ECRC request by every utility going forward can potentially become a cash cow. Simply put, it is contrary to the principles on which clause recovery is based to suggest that the Commission in 2009 would pre-approve work which has not yet even been shown necessary, not outlined, not described or not estimated.

Moreover, when the CA and CO were entered into in 2015 and 2016, respectively, FPL had not disclosed the full scope of the remediation projects, according to FPL witness Sole. FPL's reliance on the suggestion that the DEP and Miami-Dade County DERM purportedly "approved" of the RWS system before signing off on the CO and CA rings hollow, considering the fact that FPL did not present either agency with a specific plan, an engineering design or a model before the CO and CA were signed. TR 763, lines 9-25.

The company essentially seeks to shortcut the Commissions' ability to make a determination about whether FPL has met its necessary burden of proof to demonstrate that the costs of repairing harm caused by its management of the CCS, are reasonable and prudent and can be shifted from shareholders to customers. FPL undeniably has the burden of demonstrating that its costs were prudently incurred. *Fla. Power Corp. v. Cresse*, 413 So. 2d 1187, 1191 (Fla. 1982). This burden includes demonstrating whether its actions (including inactions) over the past 45 years caused damage that is appropriate for recovery through the ECRC. In this docket, FPL impermissibly wants to impose these retroactive costs on future customers. By attempting to shoehorn the costs of damage repair (remediation and retraction) into a relatively minor existing program that was never designed to address corrective remediation and mitigation costs of this nature, scope or magnitude, FPL would evade scrutiny and avoid being held to its required burden of proof. The Commission must reject this effort.

The costs imposed by the DEP Consent Order through the RFRP are unrelated to the program that was approved as the TPCCMP or Project 42. The only thing the two activities have in common is some convenient labeling. In substance, they are vastly different. The Commission has the tools to discern these differences. When the Commission first implemented the ECRC in 1994, it established a principle of demarcation that is a useful guide in this situation (if the Commission even believes there is a sufficient level of similarity) Order No. PSC-94-0044-FOF-EI, at page 5. In this order, when it first implemented the newly enacted ECRC law for Gulf Power Company, the Commission contemplated how to distinguish existing activities in base rates from those that would be eligible for clause recovery under the new law creating the ECRC. They devised the following approach which is equally applicable here in deciding whether a particular activity and associated costs should be considered separately from a past approval for prudence, reasonableness and recoverability from customers:

A problem arises if a new environmental regulation requires the utility to increase the scope of an activity which was considered in the last rate case. Regulatory theory indicates that the utility is already being compensated for such changes in scope. But the legislative intent is to allow utilities to recover increased costs due to new environmental requirements. ***We find that the cost of the scope change shall be allowed for recovery through the environmental cost recovery clause, because we consider the scope change to be a new activity.***

(Emphasis added)

Citizens submit that when this test is applied to the post-2015 activities that FPL seeks to pass through the ECRC in the instant case, it requires the RFRP to be treated as a brand new program and evaluated anew for prudence, reasonableness and recoverability. The Commission can use the 1994 Gulf ECRC implementation test in deciding how to separate and consider activities that have only minor overlap, if any, with the old, 2009 uprate-centric Project 42 – which back then only received prior, limited²¹ conceptual approval.

At hearing, FPL witness Sole read into the record the 2009 supporting testimony cited by the Commission in the stipulation contained in the 2009 Order that made no mention of remedial or corrective activities and clearly showed that the new activity of — uprate — and only the uprate — impacts were the subject of the monitoring expenses. TR 453-456; EX 74 at 10-13. That project was strictly for monitoring purposes and only was implemented because of environmental agency concerns over uprate-related groundwater impacts.

The TPCCMP (Project 42) itself was a change in scope from the ongoing (and base-rate recovered)²² monitoring that was required since the 1970s. The then-new Project 42 was highly specific to uprate impact monitoring and thus qualified for ECRC under the change in scope test from the 1994 order. Notably, nowhere in the 2009 Order does the Commission mention the terms “remediation” or “correction” or “corrective action.” TR 450. There is no mention of any violation of law, violation of regulations or violation of permit conditions in the 2009 Order. TR 440-443;

²¹ In approving the TPCCMP costs in Project 42 eight years ago. The Commission noted the scope of the monitoring and any uprate –impact related mitigation and declined to extend its approval beyond that, noting at page 13:

[I]t is uncertain at this point when the incremental O&M activities of the Project will cease due to the nature of the project scope, which includes further assessment of the impacts of the Uprate Project and the implementation of mitigation measures to offset such impacts.

The eligibility of ECRC recovery for any similar project will depend on individual circumstances and shall, therefore, be considered on a case-by-case basis.

²² Order No. 2009-0759-FOF-EI at 12.

EX 74 at 10-13. Likewise, the Commission does not express awareness in the 2009 Order of any impending violation of law, enforcement action or Consent Order or Consent Agreement.

In short, the 2009 Order plainly limited its approval of Project 42 to the costs of monitoring the impacts of the uprates and possibly any future mitigation of the incremental impacts of the uprate on the aquifer.²³ These facts and the application of the test clearly demonstrate that the RWS and freshening wells are a brand new activity and an entirely different project in purpose, scope and magnitude, and thus require a full, independent consideration for recoverability.

The record in this case further demonstrates that the costs being incurred in an attempt to halt and retract the hypersaline plume that built up over 45 years had nothing to do with the uprate. TR 518. In terms of scope, the substance of the activities and the magnitude of the costs provide a stark contrast. The pre-2015 monitoring costs of Project 42 were relatively small, while the new post-2015 RFRP costs dwarf the cost approved for uprate related monitoring. For example, in the years 2009 through 2014, the O&M costs range from \$14,527 to \$5,823,115 and average \$2,075,859²⁴ EX 57, Staff Interrogatories 9-10. If O&M for the year 2015 is included in the analysis, the average increases to \$5,575,973 because FPL included \$17,616,393 for “sediment removal” in 2015. There is no evidence that this amount was properly part of a “monitoring” program. If the sediment removal is not included, for the purpose of comparing to the RFRP, then the 2009-2015 monitoring average O&M amount is mathematically calculated to be \$2,999,346. The three year total of O&M for 2016-2018 –is \$70,501,961. EX 57, Staff Interrogatories 9-10; EX 67. ($\$14,047,116 + \$37,649,926 + \$18,804,919 = \$70,501,961$). The average O&M expense for the three years is \$23,500,654. Tellingly, the Project 42 costs did not require the consideration of any allocation of costs between expense and capital as FPL proposes in this hearing for the remediation and prevention categories. TR 570-571. This fact alone demonstrates a material qualitative difference between the old and new activities.

More importantly, the level of capital (depreciable plant) from 2009 through the end of 2019 barely increased from 3,593,541 to \$3,582,753 for the years 2010 – 2014. Plant increased to \$7,329,448 at the end of 2015 and then increased to \$17,170,089 at the end of 2016. The increase

²³ Witness Sole stated that the uprate impact was not deemed to have a material impact on the CCS’s discharges to the aquifer. TR 378

²⁴ The OPC understands the numbers discussed here to be total system numbers.

in 2016 is due almost exclusively to 5 freshening wells totaling \$9,836,968.²⁵ By the end of 2018, the plant balance is projected to grow to \$69,410,191 or an increase of \$62,080,743, (TR 267) and includes the cost of 18 wells (8 for freshening through pumping at least 14 million gallons per day (MGD) and 10 for retracting the salt for at least the next 10 years). O&M expenses for the years 2016 to 2018 are estimated to be \$70,501,961. Total system expenditures (O&M and capital together) for the RFRP for these three implementation years appears to be \$132,577,031 (\$70,501,961 (O&M) + 62,080,743 (increase in plant). EX 67. These new costs for the RFRP and the underlying scope and nature of these activities bear no relationship to the monitoring and perhaps abatement of the impacts of the uprate (which the company denies would be material anyway). TR 518. Furthermore, this \$132,577,031 (jurisdictional amount) should be excluded from cost recovery as being the responsibility of the company's shareholders.

The facts do not lie. The post 2015 RFRP costs represent a drastic change in scope and activity and are, by any reasonable definition, a totally new project when compared to Project 42 that the Commission approved through a stipulation in 2009, in a docket where FPL presented no evidence of any violation of law, impending NOV and Consent Order or Consent Agreement. The testimonies of witnesses Sole, Deaton and Ferguson and Exhibits 67 and 68, along with the unambiguous language from the 2009 order, clearly refute the notion that the Commission was aware of, considered or in any way approved the RWS and any other remedial or corrective measures that FPL years later agreed to under the Consent Agreement and the Consent Order.

Moreover, the Commission made it clear that new projects would be considered on a case-by-case basis. The agency has been careful in the past to not give blanket approval to new, unseen activities and have rightfully reserved to themselves the authority to make prudence determinations for new projects like the RFRP that represent a quantum leap in scope and cost. To do otherwise would open the floodgates to a utility merely hinting about things that could go wrong – much like is done in a SEC forward-looking statement risk disclaimer – and then expect “drive-by” approval in the future for any project that is merely similarly labeled. If that was true, then where would the line be drawn? The Commission has an effective test to stop this slippery slope and should apply it here.

²⁵ The OPC is asking that the jurisdictional cost of the freshening wells (approximately .95 x \$9,836,968 should be excluded from ECRC rate base and that no investment, depreciation and taxes revenue requirement be recovered from customers for this amount and as all freshening for the near future is remediation based retraction. This \$9.8 million is included in the \$62,080,743 reflected in the plant growth from 2015 to 2018

ISSUE 10D: Is FPL’s proposed allocation of costs associated with the June 20, 2016 Consent Order between FPL and the Florida Department of Environmental Protection and the October 2015 Consent Agreement between FPL and the Miami-Dade County Department of Environmental Resources Management (as amended by the August 15, 2016 Consent Agreement Addendum) between O&M and capital appropriate? If not, what is the correct allocation of costs between O&M and capital?

POSITION: * No. The costs of the Retraction Well System are remedial in nature and should not be imposed on FPL’s customers. FPL’s management knew or should have known that its actions in operating the CCS were creating material harm to the Biscayne Aquifer. FPL’s actions and inaction over time placed the Company in violation of law, and therefore, constitute imprudence. Thus, the costs of addressing the consequences of that imprudence are not properly costs that should be borne by customers.

ARGUMENT:

FPL’s own expert testified their remediation efforts will ultimately be unsuccessful by the end of the 10 year deadline for retraction of the hypersaline plume, which is required by the DEP CO.²⁶ FPL recognized the 10 year deadline for hypersaline plume retraction, as evidenced by the fact that FPL’s own analysis of “aquifer remediation scenarios” all comprised 10-year simulations. *See*, EX 49, PFA-2, p. 2.

Further, FPL’s expert conceded the RWS will not be effective in the deepest one-third (layers 9-11); of the Biscayne Aquifer, which makes it unlikely that FPL will be in compliance by the end of the retraction deadline set forth in the CO. TR 897. Specifically, FPL witness Andersen testified that, according to his model, the hypersaline plume will NOT be retracted from the Aquifer layers below a depth of 60 feet, down to 90 feet, which corresponds to layers 9 through 11. TR. 895, 897. Therefore, Andersen admitted that retraction would, at best, only be effective in about “two-thirds of the Aquifer.” *Id.* Moreover, FPL’s statement that retraction is projected to

²⁶ DEP CO p. 8, para. 20(c): FPL “shall ... reduce the westward extent of the hypersaline plume to the L-31E canal within 10 years ...”; p. 9 para (c)(i) states the plan must be designed to “retract the hypersaline plume to the L-31E canal within 10 years ...”

occur along “most” of the CCS boundary is just another way of saying that there are areas where retraction will not occur. TR 851.

The model at issue was developed by FPL. The related definitions and terminology regarding the layers of the model were also developed and proposed by FPL. For instance, FPL’s expert asserted that the Biscayne Aquifer as modeled by them is comprised of eleven layers. EX 86, at ECRC-17-006229; Exhibit KF-1. OPC’s expert worked within the framework proposed by FPL. OPC compared the same parameters proposed by FPL²⁷ and applied the same terminology proposed by FPL. Therefore, it is disingenuous for FPL to claim at the hearing that a discussion of the Aquifer layers as related to *its own model* is somehow incorrect or too hard to follow. TR 892.

After asserting in its initial pleadings that retraction “may” occur through layer 9 by year 12, (KF-1, p. 4), FPL’s own expert testified the model shows retraction by the RWS works “most effectively through layers [sic] through eight,” and in some later unspecified modeling, retraction possibly reaches layer 9. TR. p. 895. Nevertheless, he later alternately suggested that layer 9 is irrelevant because it is not part of the Aquifer, or that the model is somehow incorrect. TR. 851, 897. However Andersen’s latest model report (Tetra Tech 2016f, page 13) says that the latest model “reduced the CSEM data error in all layer groups, especially layers 9-11.” EX 66. This indicates that the model performed well compared to this data, especially in the lower layers which he disputes. He further notes on the same page that the model produced using “CSEM Targets calibration marks the best calibration of the Regional Biscayne Aquifer model so far.”

Even in the Aquifer layers where FPL is able to project that some retraction would occur (layers 4-8), the modeled data suggests that the RWS would not be the primary cause of the retraction, but instead that the freshening of the CCS is the main driver of any retraction that occurs in those layers. OPC witness Dr. Panday evaluated the effectiveness of both elements of FPL’s proposal (freshening and RWS) separately from each other to show the net effect of the recovery wells versus the net effect of freshening. FPL’s witness conceded that Dr. Panday’s method is a valid means of comparing the effect of freshening versus the effect of the RWS. TR 849. The resulting data showed that freshening alone was as or more effective than the RWS. TR 640. Because the evidence demonstrated that the RWS component was largely ineffective, it follows

²⁷ TR. 684; 695; 698 – 699 (OPC’s witness Panday explaining that his analyses compared the specific layers referenced by TetraTech for purposes of consistency in the evaluations).

that the RWS is not a prudent use of ratepayer money and that any value of freshening activities in the early years of the project are primarily remediation-related.

Specifically, FPL admitted that, in its own model, the upper layers of the Aquifer were not hypersaline, so those layers did not require or benefit from the RWS. TR 890. FPL also eventually admitted that retraction impact down to layer 8 was mainly due to freshening, not the RWS, as demonstrated in SP-3 Demonstratives 22a and 23a which compared the impact of the RWS to the impact of freshening alone. TR 914. As referenced above, FPL conceded that retraction in layers 9 through 11 will not occur within ten years, regardless of whether the RWS, or freshening, or both together are employed. Therefore, where the evidence shows that the RWS is either not required (layers 1-3) or not effective (layers 9-11), there is no compelling reason for customers to pay for it. Asking customers to pay for an ineffective system simply defies logic and is inconsistent with the requirements of Section 366.06, F.S.

In Mr. Andersen's rebuttal, he noted that pumping from the RWS moves the 1.0 contour line in layer 8 largely into FPL's property. TR 851, PFA-3. However, most of the hypersaline area in layer 8 outside of the FPL property line under the case scenario without RWS pumping (Alternative 2 in Exhibit PFA-2) is only slightly above 1.0. OPC's simulation of the case without RWS pumping, which indicates that even at the property line itself, the concentrations after 10 years are mostly between 1.1 and 1.25 which is only 4 to 8 PSUs above seawater concentrations. The effect of the RWS, therefore, is to reduce the concentrations by a maximum of 4 to 8 PSUs outside of the property line; however a reduction of 28 PSUs is necessary to meet regulatory requirements. Therefore, the reduction by 4 or 8 PSUs that FPL says it can achieve (but only in layer 8 of the model), compared to the 28 PSU reduction necessary in that layer, clearly demonstrates that the effectiveness, if any, of the RWS is relatively minor.²⁸ Where history shows some monitoring wells having reflected measurements of 65 to 75 PSUs over time, FPL's hope

²⁸ Regarding FPL's assertion that they project to remove billions of pounds of salt over 10 years – without context, this assertion is meaningless. TR. 867-868. FPL fails to state how many untold billions of salt will remain in the aquifer due to the fact that the RWS will not remove it. Additionally, neither the CO, CA, nor any of the SFWMD Agreements reference the total amount of salt FPL has allowed to migrate into the aquifer from its CCS over the last 45 years, and none of these documents measure the retraction requirement in terms of how many pounds of salt must be removed for FPL to be in compliance with its permit and the law. Again, out of context, the plan to remove billions of pounds of salt only seems like a substantial amount when there is no context for comparison. However, if FPL dumped perhaps hundreds of billions of pounds of salt into the aquifer, then removing a few billion pounds would only be a minor improvement.

that it's plan will clean up 4 to 8 PSUs is not a testament to effectiveness. *See*, EX 89, App. D figure 6b; EX 63, FPL's Response to Staff's Interrogatory 75.

Upon learning that the RWS would not work at all in the lower layers of the Aquifer, FPL then resorted to criticizing **its own modeling**, so that it could assert that the lower layers are not actually part of the Aquifer, and thereby rehabilitate the RWS as part of its remediation project, for purposes of seeking capital recovery from ratepayers. From the start, FPL has acknowledged the Biscayne Aquifer extends 90 to 100 feet below the CCS, and the most reliable data in the record (including that published by FPL's own experts) shows the Aquifer extends 90-100 feet below the CCS. FPL's expert further admitted that he modeled the bottom of the aquifer at 90 feet below sea level. TR. 898.

The 2010 GeoTrans Feasibility study which was released over 30 years after the 1978 Dames & Moore report and which had the benefit of updated technology, showed the aquifer extended below the CCS at 90 feet.²⁹ GeoTrans was a TetraTech subsidiary which has now fully merged into TetraTech, the company for which FPL witness Andersen works.

The May 2016 Enercon report commissioned by FPL contains updated maps of the Biscayne Aquifer produced using an areal electromagnetic (AEM) survey, also referred to as a CSEM survey. *See*, EX 58. FPL witness Sole referred to this technology used by Enercon as "state of the art." TR. 341. He further testified that this is the very same technological method FPL proposes to use to identify whether FPL is successful at retracting the hypersaline plume back to the boundary of the CCS. TR. 342.

Enercon indicated on page 1 of the report that their task was to conduct "an assessment of the location and orientation of hypersaline groundwater (as defined by chloride concentrations above 19,000 milligrams per liter [mg/L]) within the Biscayne Aquifer to the west and north of the CCS using Continuous Surface Electromagnetic (EM) mapping methods." At the bottom of the page they further identify " ...the base of the Biscayne Aquifer, at about 100 feet below land surface ..." (emphasis added). Enercon reiterated this on page 8. The Enercon report clearly indicates they believe the Biscayne Aquifer to be approximately 100 feet below land surface, or roughly sea level. *See*, EX 58, FPL's Response to Staff's Interrogatory 40 and related Maps at Appendix B, pp. 204-217. In fact, the maps contained in the Enercon report divide the Aquifer

²⁹ EX 89, App. D - GeoTrans memo dated June 29, 2010 "Cross-Sectional Model of Turkey Point Cooling Canal System" p. 3 and Figures 4 and 5.

into 14 layers, the bottom of which is 100 feet below sea level. In that sworn interrogatory answer, FPL admits that the base of the Aquifer is 100 feet, not 70 feet below sea level. *Id.*

Even though FPL's expert on the one hand suggested that lower conductivity below layer 8 indicates it is not part of the aquifer, on the other hand, he later admitted that all layers of the aquifer do not have to have the same level of permeability in order to be considered part of the same aquifer. TR. 915.

In his responses to questions from Commissioner Polmann, Witness Andersen admitted that an aquifer is a subsurface geologic formation that can store, transmit and yield water in useful quantities. TR. 941. Layers 9-11 of the Biscayne Aquifer have hydraulic conductivities of over 1000 feet/day (horizontal hydraulic conductivity values of 1,400 feet/day and 2,821 feet/day for Fort Thompson Formation are reported in Tables 4 and 5 of Tetra Tech 2016f). EX 66. These hydraulic conductivity values are large and cannot be considered part of a confining unit.

The Dames & Moore 1978 report figure regarding the depth of the Aquifer is simply a conceptual figure which averages the range of elevations of the bottom of the Aquifer (100 feet to the west and around 50 feet to the east of the density dependent model domain) to use 70 feet as an estimate of the bottom. All the newer reports include the variation in depth (including USGS, FPL's numerous more recently hired consultant experts and FPL's own density dependent saltwater intrusion model itself). Contrary to FPL's recent attempts to suggest the deeper layers of the Aquifer (9-11) are not actually part of the Aquifer, their own experts' studies demonstrate this claim is not supported by any recent, credible scientific data. The bottom of the Biscayne Aquifer lies at the bottom of the Fort Thompson Formation and this is how the Aquifer has been represented by FPL's consultants and others.

There is a basic geologic definition for the Biscayne Aquifer. It is defined as the geologic units of the Miami Limestone and the Fort Thompson Formation. EX 88, Ecology & Environment, 2012c Comprehensive Pre Uprate Monitoring Report, October 31, 2012. This report states that the Biscayne Aquifer can in fact extend below the bottom of the Fort Thompson Formation and into the Tamiami Formation.³⁰

³⁰ EX 88. The 2012c Ecology and Environment Report, page 5-1 describes the bottom of the Aquifer as follows:

From land surface, the geologic formations encountered during drilling of the monitoring wells for this project include the Miami Limestone, the Fort Thompson Formation, and the upper Tamiami Formation. The Biscayne Aquifer System (BAS) is made up primarily of the Miami Limestone and the Fort Thompson

Moreover, Mr. Andersen in his Tetra Tech 2012c also described “the lower boundary of the Biscayne aquifer as the top of relatively less permeable units of the Tamiami Formation.” EX 86, Tetra Tech 2012c, p. 4. Later, in his discussion of model layering on page eight, he stated “[t]he Biscayne aquifer was divided into 11 layers in the numerical model,” and then explained that high conductivity zones were encountered in wells and that they were implemented into the model. Mr. Andersen further indicated “the lower high flow zone (Layer 8) is located in the approximate middle of the Fort Thompson formation.” This is a clear admission that the Biscayne aquifer bottom is at the bottom of the Fort Thompson Formation, and that layer 8 is approximately in the middle of the Fort Thompson formation.

FPL’s newfound reliance on the almost 40 year old Dames & Moore report as the sole source of “debate” about the depth of the Aquifer is directly contradicted by the collective judgment found in the published opinions of the numerous experts **hired by FPL** in the intervening years, using updated technology.³¹ It is also directly contradicted by the USGS and every other credible authority. FPL witness Andersen could not point to a single USGS or Florida Water Management District analysis to support the unfounded assertion that there is a current debate about whether the bottom of the Aquifer is further than 70 or 80 feet below sea level. TR. 902.³²

The bottom line is that when its own model showed the hypersaline plume would not be retracted from layers 9 through 11, FPL pivoted to force the facts to conform to its desire to shift the cost to the ratepayers. The pivot involved FPL belatedly questioning its own model and

formations. Higher permeability units in the upper Tamiami Formation may also form portions of the BAS (Cunningham 2004 and 2006); however the Tamiami Formation is considered to be the intermediate confining unit underlying the BAS where a significant decrease in permeability occurs (Fish and Stewart 1991). The lower boundary of the BAS is delineated by the transition between highly permeable beds of the Fort Thompson Formation or Tamiami Formation and lower permeability sands or silty sands of the Tamiami Formation (Fish 1988).

³¹ In addition to GeoTrans and Enercon, FPL’s consultant Ecology and Environment also confirmed the base of the Aquifer extends at least 100 feet below sea level in their 2012 Comprehensive Pre-Uprate Monitoring Report. EX 88. See, Figure 3.1-10 of Ecology & Environment (2012c Comprehensive Pre Uprate Monitoring Report, October 31, 2012) which shows the base of the Biscayne Aquifer along a north to south cross-section beneath the CCS. It consistently shows the bottom to be at **depths over 100 feet**. Also, wells are shown to go to depths of at least 90 feet. This directly contradicts Mr. Andersen’s testimony that wells did not go that deep in the section discussed. TR p. 902.

³² It is also inconsistent for FPL to now claim that the Dames & Moore report must be credible on this point, when the same report was flat out wrong in its statement that chlorinity levels in the CCS would stabilize within a few years (TR 730) and that chlorinity levels would never exceed 23 ppt (TR 732), when in fact the levels ultimately almost tripled. *Id.* Moreover, FPL’s own witness Sole criticized the Dames & Moore report and conceded that if Dames & Moore’s assertions had been correct, the hypersaline plume at issue would not have contaminated the Aquifer. TR 350-352. After all that, FPL asks the Commission to believe that this Dames & Moore report is an accurate source for the depth of the Aquifer, despite copious updated evidence attesting otherwise.

changing the definition of the Aquifer in order to claim that the areas the RWS will not retract must not be part of the Aquifer. With its unsubstantiated claim about the depth of the Aquifer, FPL is merely attempting to deflect attention away from the parts of the Aquifer that it contaminated directly adjacent to the CCS, by claiming that miles west of the CCS, the aquifer is more shallow. This is totally irrelevant to the overwhelming evidence that FPL did damage to the Aquifer immediately adjacent to FPL's property.

The RWS will not retract the entirety of the hypersaline plume from the Aquifer, because it will not retract from the lower layers of the Aquifer. While freshening the CCS will ultimately have some retraction or remediating effect in the upper layers of the Aquifer, this does not change the fact that even if both the RWS and freshening were employed together, the hypersaline plume would not be fully retracted back to FPL's property within ten years, if ever. TR 639.

FPL next attempts to explain away the importance of the data regarding the RWS' lack of effectiveness by stating that the MDC CA provides FPL a second chance to revise the model after the wells have been operating for a year. TR 852.³³ However, this merely supports OPC's objection to using ratepayer money to fund an experimental RWS project which the data already indicates will not be effective within the time frame required by the DEP Consent Order.³⁴

The evidence demonstrates that an adequate level of freshening will be as effective as the RWS for the containment/prevention requirement functions in the near term. TR 640-641. Therefore, the cost of the RWS should not be included in any recovery at this time.

FPL projects that the RWS would serve a remedial function for the first ten years, then shift to a containment function for years eleven through twenty. However, whether the RWS will

³³ At the hearing, counsel overstated the impact of Miami Dade County's DERM having accepted FPL's groundwater model as "adequate to support the design of the RWS" as part of FPL's phase one "remedial action plan." TR 676. The DERM letter (MWS-9) actually contemplates that the RWS may not ultimately achieve the objectives of the CA and outlines contingency plans for changing it – the document is not an unqualified assessment that the RWS will work. Nonetheless, regardless of how many chances Miami-Dade County is willing to give FPL to correct the County violation, the requirements of the DEP CO remain certain and unchanged – FPL is under a hard deadline to retract the hypersaline plume to its borders within ten years. FPL's obligation under the CO is independent of any requirements in the CA. TR 378.

³⁴ Any confusion stemming from Staff's cross examination of Dr. Panday was clarified at TR p. 683-684, where Dr. Panday explained that if there is to be any cost allocation to customers, and if that allocation is expressed in terms of remediation and containment / prevention, then the percentages for allocation proposed by FPL are not supported by the evidence. The clear intent of Dr. Panday's original testimony (as demonstrated by Commissioner Polmann) was that he offered no opinion on the strictly accounting aspects (capital vs O&M). As a hydrogeologist, he would offer an opinion based on hydrogeological principles bearing on remediation and containment.

ever serve a containment function is highly speculative, and is dependent upon whether the RWS actually works as contemplated during the first ten years.

FPL's own Florida environmental regulation and policy expert Sole testified that compliance with the CO merely resolves the notice of violation. This interpretation in effect means the company will, on a prospective basis, no longer be out of compliance with the law as long as it implements the CO and follows the remaining conditions of the permit. Compliance with the CO is mandatory and requires FPL to implement the remediation conditions to correct or repair FPL's hypersaline plume contamination of the Aquifer from the past decades to the present. TR 388-389. The Commission also explored this issue in the following discussion initiated by Commissioner Polmann:

Commissioner Polmann: ... does compliance with the consent order constitute permit compliance?

The Witness: No. The consent order is a separate document, and the company will be obligated to comply both with the permit as well as the consent order.

Commissioner Polmann: In terms of the notice of violation, compliance with the consent order, does that resolve the notice of violation?

The Witness: It does. Yes.

Commissioner Polmann: If you are in compliance with the consent order, are you considered to still be in violation?

The Witness: No.

Commissioner Polmann: So compliant with the consent order and the remaining – and all the conditions of the permit brings you into compliance?

The Witness: That is correct. That is the intent of the consent order.

TR 807 - 808.

This exchange between Commissioner Polmann and Mr. Sole confirms the purported containment phase of FPL's remediation project / NOV correction should actually be considered a separate project which is primarily, if not entirely, remediation and thus not recoverable from customers, particularly as to years 1 through 10. It is certainly not a monitoring project like that approved by the Commission in 2009.

FPL's expert also suggests the containment aspect of the system would be lost if the RWS were to be turned off in year 11. Yet, according to FPL, CCS freshening should bring the salinity of the water within the CCS footprint to below hypersalinity. TR. 811, 949 (regarding FPL's obligation to keep CCS salinity at or below 34 PSU). Therefore, if the CCS is maintained at less than hypersaline conditions, then there would be no hypersalinity present to need containment – except of course for the hypersalinity in layers 10 and 11 which are not affected by the RWS in any case, *and which FPL claims are not part of the Aquifer anyway*. FPL's own reports show that layers 10 and 11 will not be affected by either freshening or RWS pumping. TR 859. By FPL's own logic, if it complies with the CO regarding the CCS salinity conditions, then containment will not be necessary.

FPL further claims the deeper portions of the Aquifer beneath the CCS are non-potable and suggests by implication that the entire Aquifer is also non-potable. However, the CCS causes its hypersaline portions to move westward into portions of the aquifer which would be suitable for water supply development, but for FPL's CCS contamination seeping out.³⁵ TR. 795 and 942-943. Nonetheless, water supply development is not the only use for which the Aquifer provides natural resource value and beneficial use, and the standard outlined by regulators is that FPL should restore the Aquifer to the salinity levels that existed before the CCS started discharging hypersaline water into the Aquifer. FPL's permit prohibits it from impairing the beneficial use of the natural resource; it is not up to FPL to dictate the exact uses for which the public agencies preserve this public resource. Florida's constitutional mandate to protect the state's natural resources is more than broad enough to encompass the protection of aquifers for uses other than drinking water. *See*, Article III, Section 7(a) of the Florida Constitution.³⁶ Additionally, the state's public policy, as outlined in statute, dictates that beneficial use of the state's waters includes the preservation and propagation of wildlife, fish and other aquatic life, such that pollution of the waters of this state constitutes a "menace" and creates a public nuisance. *See*, s. 403.021, Fla. Stat. Floridians have

³⁵ FPL has repeatedly attempted to inject into the record a red herring about naturally occurring hypersalinity in the Aquifer. Nonetheless, after being confronted about the disingenuous nature of the statements, FPL witness Sole finally conceded that the "incidental hypersalinity" he referred to as naturally occurring is entirely different from the hypersalinity caused by the CCS, which is the subject of the remediation project at issue. TR 343. In fact, the record reflects that salinity before the CCS started operating was in the range of 14 ppt, but by 1990, the chloride readings had jumped to 30 ppt in FPL's L-3 well located west of the CCS. EX 70, Dames & Moore, 1978; EX 66, Dames & Moore, 1990, Figure 9.

³⁶ The Florida Constitution states: "It shall be the policy of the state to conserve and protect its natural resources and scenic beauty."

declared, by statute, that the public policy of the state regarding conservation is to protect human health and safety, and prevent injury to plant and animal life and property. *Id.* FPL's decades of pollution did not simply violate their permit, it directly broke the policies the citizens of this state enshrined in statute. And to top it all off, FPL now wants the citizens to (a) pay all the costs to clean up the damage caused by FPL, and (b) give FPL a profit over and above the damage payments, under the guise of a "capital improvement" which is not even likely to repair the damage.

Simply put, FPL improperly engaged in willful indifference about the hypersaline plume growing in, and spilling out, of its borders. By ignoring the recommendations of its own hired experts to respond to salinity trends rather than looking at each year of groundwater monitoring data in a vacuum, FPL failed in its obligations to ratepayers. *See, Association of Bus. Advocating Tariff Equity v. Public Serv. Comm'n*, 527 N.W. 2d 533, 538 (Mich. App. 1994)(affirming finding of imprudence where management ignored recommendations of contractors and instead approved a construction schedule for which the probability of success was low). Rather than treating each year as a separate snap shot, FPL acting as a reasonable utility manager should have compared the salinity in each year's testing to the results from all previous years. In that way, FPL would have seen the clear and present danger from the increasing salinity through the 1980's and 1990's, **as it was happening**, and could have responded before the hypersaline plume grew and spread outside of FPL's property boundaries to pollute the Biscayne Aquifer.

As explained above, the evidence demonstrates that an adequate level of freshening will serve the containment and prevention functions for the CCS in the near term. Under such circumstances the entire cost of the RWS, including its downstream containment benefits, should not be allowed for recovery at this time.

CONCLUSION

In conclusion, for the above stated reasons, FPL should not be allowed to pass along to its customers through the ECRC or any other ratemaking mechanism the jurisdictional portion (approximately 95% (EX 67)) of the \$132,577,031 in remediation costs necessitated by the damage their imprudence caused to the resources of the state of Florida and Miami-Dade County. Any portion of this shareholder responsibility previously recovered should be refunded to customers.

Dated this 13th day of November, 2017

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Citizens' Post Hearing Brief has been furnished by electronic mail on this 13th day of November, 2017, to the following:

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