Florida Power & Light Company, 215 S. Monroe Street, Suite 810, Tallahassee, FL 32301

FPL

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August 30, 2012

-VIA HAND DELIVERY -

Ms. Ann Cole
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 120007-EI

Dear Ms. Cole:

I am enclosing for filing in the above docket the original and seven (7) copies of Florida Power & Light Company's ("FPL's") Petition for Approval of Environmental Cost Recovery Factors for the Period January 2013 Through December 2013, and Approval of the Numeric Nutrient Criteria Water Standards Project, together with a CD containing the electronic version of same.

Also enclosed for filing are the original and fifteen (15) copies of the prefiled testimony and exhibits of FPL witnesses T.J. Keith and R.R. LaBauve.

If there are any questions regarding this transmittal, please contact me at 561-304-5639.

Sincerely,

for John T. Butler

Enclosures
cc: Counsel for Parties of Record (w/encl.)

COM ____
AFD 2+CD
APA 1
ECO 1
ENG 1
GCL 1
IDM 1
TEL ____
CLK ____

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Environmental Cost)	**DOCKET No. 120007-EI**
Recovery Clause)	**Filed: August 30, 2012**

PETITION FOR APPROVAL OF ENVIRONMENTAL COST RECOVERY FACTORS FOR THE PERIOD JANUARY 2013 THROUGH DECEMBER 2013 AND APPROVAL OF THE NUMERIC NUTRIENT CRITERIA WATER QUALITY STANDARDS PROJECT

Florida Power & Light Company ("FPL") pursuant to Order No. PSC-93-1580-FOF-EI and Order No. PSC-98-0691-FOF-PU, hereby petitions this Commission (1) to approve the Environmental Cost Recovery ("ECR") Factors submitted as Attachment I to this Petition for the January 2013 through December 2013 billing period, and (2) to approve the Numeric Nutrient Criteria Water Quality Standards Project, such that the reasonable costs incurred by FPL in connection with this project subsequent to the date of this petition may be recovered through the ECR Clause. All ECR Factors are to become effective starting with meter readings scheduled to be read on or after Cycle Day 1, and will remain in effect until modified by subsequent order of this Commission. In support of this Petition, FPL incorporates the prepared written testimony and exhibits of FPL witnesses T.J. Keith and R.R. LaBauve, and states as follows:

1. Section 336.8255 of the Florida Statutes authorizes the Commission to review and approve the recovery of prudently incurred Environmental Compliance Costs.

2. FPL seeks Commission approval of the ECR Factors for the period January 2013 through December 2013 as set forth in the testimony and documents of Mr. Keith, and in Attachment I to this Petition. FPL is requesting recovery of total projected jurisdictional environmental costs, adjusted for revenue taxes, in the amount of $214,202,076, representing $215,032,494 of 2013 environmental project costs decreased by the actual/estimated true-up over-recovery of $7,620 for the

period January 2012 through December 2012 and by the final over-recovery of $976,912 for the period January 2011 through December 2011, as filed on April 2, 2012. The calculations of environmental costs for the period January 2013 through December 2013 are contained in Commission Forms 42-1P through 42-8P which are attached as Appendix I to Mr. Keith's prepared testimony.

3. FPL witness R.R. LaBauve's prepared testimony and documents present and support a new environmental compliance activity for recovery through the ECR Clause: the Numeric Nutrient Criteria Water Quality Standards Project. Mr. LaBauve's testimony includes a description of this project, an identification of the environmental laws or regulations requiring FPL to undertake the project, the forecasted costs associated with the project, a description of the steps FPL is taking to ensure that the environmental compliance costs to be incurred by FPL pursuant to the project are prudent, and a demonstration of the appropriateness of the project. This information shows that the Numeric Nutrient Criteria Water Quality Standards Project meets the requirements for recovery set forth in section 366.8255 of the Florida Statutes and that the forecasted environmental compliance costs associated with the project are reasonable.

4. The Numeric Nutrient Criteria Water Quality Standards Project is required by Chapter 62-302, Florida Administrative Code, Surface Water Quality Standards (FDEP) or Title 40 Code of Federal Regulations Part 131, Water Quality Standards for the State of Florida's Lakes and Flowing Waters (EPA). The EPA is under a federal court order to implement numeric nutrient criteria (NNC) through NPDES permit renewals for the reduction of total nitrogen and total phosphorus discharges and load in Florida freshwaters to comply with the Federal Clean Water Act. The FDEP has drafted its own NNC rule and has strongly communicated to the EPA that it prefers to implement the state rule. The EPA supports the FDEP in that effort. The EPA has until the January 6,

2013 implementation date to review and approve the FDEP's proposed NNC rule. Either the EPA or FDEP numeric nutrient criteria rule will be implemented through NPDES Industrial Waste Water permit renewals for the reduction of total nitrogen and total phosphorus discharges and loading in Florida freshwaters.

5. The NPDES permit renewal date for the Martin plant is June 10, 2013 and for the Sanford plant it is August 14, 2013. FPL's preliminary estimate of total project costs is $1.6 million of O&M and $1.2 million of capital projected for budget years 2013 through 2017. FPL does not anticipate incurring costs for the project in 2012. For 2013, FPL projects to spend $0.442 million for O&M. Capital costs are projected to begin in 2015. O&M activities include monthly water sampling (intake and discharge structures) and reporting, biological assessments (stream condition index assessment upstream and downstream of the discharges) and reporting, and changes to water chemistry. Capital activities include replacement of facilities' water treatment systems to dilute the concentrations of nutrients prior to discharge and/or change flow processes to store, treat, and remove excess nutrients prior to discharge.

6. FPL plants that will be subject to the flowing streams (freshwater) numeric nutrient criteria are Martin, Manatee, Sanford, Putnam, and Ft. Myers. The EPA and FDEP are also drafting technical numeric nutrient criteria for marine and coastal waters, with a final rule anticipated in late 2013. FPL will evaluate the impact on its plants of the criteria for marine and coastal waters as that rule is being developed.

WHEREFORE, FPL respectfully requests the Commission (1) to approve the ECR Factors set forth in Attachment I to this Petition for the January 2013 through December 2013 billing period, effective starting with meter readings scheduled to be read on or after Cycle

Day 1, and to continue these charges in effect until modified by subsequent order of this Commission and (2) to approve the Numeric Nutrient Criteria Water Quality Standards Project, such that the reasonable costs incurred by FPL in connection with this project subsequent to the date of this petition may be recovered through the ECR Clause.

Respectfully submitted,

R. Wade Litchfield, Esq.
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John T. Butler, Esq.
Assistant General Counsel - Regulatory
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Telephone: 561-304-5639
Fax: 561-691-7135

By: Lynne A. Adams for
John T. Butler
Florida Bar No. 283479

CERTIFICATE OF SERVICE
Docket No. 120007-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing Petition for Approval of Environmental Cost Recovery Factors for the Period January 2013 through December 2013 and Approval of the Numeric Nutrient Criteria Water Quality Standards Project has been furnished by hand delivery (*) or U.S. Mail this 30th day of August, 2012, to the following:

Charles Murphy, Esq.*
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Florida Public Service Commission
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Tallahassee, Florida 32399-0850

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By: Lynne A Adam
for John T. Butler
Fla. Bar No. 283479

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
RATE CLASS	Percentage of KWH Sales at Generation (%) [a]	Percentage of 12 CP Demand at Generation (%) [b]	Percentage of GCP Demand at Generation (%) [c]	Energy Related Cost ($) [d]	CP Demand Related Cost ($) [e]	GCP Demand Related Cost ($) [f]	Total Environmental Costs ($) [g]	Projected Sales at Meter (KWH) [h]	Environmental Cost Recovery Factor ($/KWH) [i]
RS1/RST1	51.45044%	58.40675%	55.76814%	27,669,936	92,746,992	907,515	121,324,444	53,023,166,899	0.00229
GS1/GST1/WIES1	5.67146%	5.19674%	5.64518%	3,050,099	8,252,157	91,864	11,394,121	5,844,824,242	0.00195
GSD1/GSDT1/HLFT1	24.33238%	21.65851%	22.06110%	13,085,899	34,392,634	359,000	47,837,534	25,078,522,608	0.00191
OS2	0.01183%	0.01155%	0.04790%	6,362	18,338	779	25,479	12,578,957	0.00203
GSLD1/GSLDT1/CS1/CST1/HLFT2	10.96302%	9.43333%	10.35092%	5,895,890	14,979,648	168,441	21,043,978	11,310,651,252	0.00186
GSLD2/GSLDT2/CS2/CST2/HLFT3	2.35236%	1.74400%	1.81649%	1,265,092	2,769,389	29,560	4,064,040	2,450,692,797	0.00166
GSLD3/GSLDT3/CS3/CST3	0.18567%	0.12385%	0.15171%	99,851	196,672	2,469	298,992	199,482,765	0.00150
SST1T	0.09085%	0.07814%	0.15774%	48,859	124,076	2,567	175,502	97,610,914	0.00180
SST1D1/SST1D2/SST1D3	0.00716%	0.00731%	0.01117%	3,850	11,612	182	15,644	7,613,528	0.00205
CILC D/CILC G	2.91834%	2.17573%	2.13807%	1,569,477	3,454,945	34,793	5,059,215	3,039,558,994	0.00166
CILC T	1.24857%	0.90041%	0.94429%	671,479	1,429,808	15,366	2,116,653	1,341,477,742	0.00158
MET	0.08717%	0.07627%	0.08355%	46,880	121,119	1,360	169,359	92,698,007	0.00183
OL1/SL1/PL1	0.61226%	0.13994%	0.78029%	329,270	222,217	12,698	564,184	630,970,753	0.00089
SL2, GSCU1	0.06850%	0.04747%	0.04347%	36,840	75,384	707	112,931	70,594,840	0.00160
Total				53,779,784	158,794,992	1,627,300	214,202,076	103,200,444,298	0.00208

[a] From Form 42-6P, Col 12

[b] From Form 42-6P, Col 13

[c] From Form 42-6P, Col 14

[d] Total Energy $ from Form 42-1P, Line 5, Column 2

[e] Total CP Demand $ from Form 42-1P, Line 5, Column 3

[f] Total GCP Demand $ from Form 42-1P, Line 5, Column 4

[g] Col 5 + Col 6 + Col 7

[h] Projected KWH sales for the period January 2013 through December 2013.

[i] Col 8 / Col 9

Note: There are currently no customers taking service on Schedules ISST1(D) or ISST1(T). Should any customer begin taking service on these schedules during the period, they will be billed using the applicable SST1 Factor.

Totals may not add due to rounding.

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 120007-EI
FLORIDA POWER & LIGHT COMPANY

AUGUST 30, 2012

ENVIRONMENTAL COST RECOVERY

PROJECTIONS
JANUARY 2013 THROUGH DECEMBER 2013

TESTIMONY & EXHIBITS OF:

TERRY J. KEITH
RANDY R. LABAUVE

COM 5
AFD 4
APA 1
ECO 1
ENG 1
GCL 1
IDM 1
TEL
CLK Ct Rep-1

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF TERRY J. KEITH

DOCKET NO. 120007-EI

AUGUST 30, 2012

Q. Please state your name and address.

A. My name is Terry J. Keith and my business address is 9250 West Flagler Street, Miami, Florida, 33174.

Q. By whom are you employed and in what capacity?

A. I am employed by Florida Power & Light Company (FPL or the Company) as Director, Cost Recovery Clauses in the Regulatory Affairs Department.

Q. Have you previously testified in this docket or any other predecessor dockets?

A. Yes, I have.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present for Commission review and approval FPL's Environmental Cost Recovery Clause (ECRC) projections for the January 2013 through December 2013 period.

Q. Is this filing by FPL in compliance with Order No. PSC-93-1580-FOF-EI, issued in Docket No. 930661-EI?

A. Yes. The costs being submitted for the projected period are consistent with that order.

Q. Have you prepared or caused to be prepared under your direction, supervision or control an exhibit in this proceeding?

A. Yes. Exhibit TJK-3 provides the calculation of FPL's proposed ECRC factors for the period January 2013 through December 2013. TJK-3 includes PSC Forms 42-1P through 42-8P, which are provided in Appendix I.

Q. Is FPL requesting Commission approval of any new or modified environmental projects?

Yes, FPL is requesting approval to recover through the ECRC several new and modified projects, as presented in the testimony of Randall R. LaBauve in this docket. On January 13, 2012, witness LaBauve filed testimony requesting approval of a modification to FPL's approved Manatee Temporary Heating System Project to include a manatee temporary heating system for the Port Everglades Plant. Witness LaBauve's August 1, 2012 testimony presented the Thermal Discharge Standards Project, Steam Electric Effluent Guidelines Revised Rule Project, the Gopher Tortoise Relocations Project, and updates to FPL's approved NPDES Permit Renewal Requirements and CAMR projects. Additionally, witness LaBauve's August 30, 2012 testimony presents the Numeric Nutrient Criteria Water Quality Standards in Florida Project and an update to FPL's approved Low Level Radioactive Waste Storage Project.

Q. Are all other costs listed in Forms 42-1P through 42-8P attributable to Environmental Compliance projects previously approved by the

Commission?

A. Yes.

Q. Please describe Form 42-1P.

A. Form 42-1P (Appendix I, Page 1) provides a summary of projected environmental costs being requested for recovery for the period January 2013 through December 2013. Total environmental requirements, adjusted for revenue taxes, are $214,202,076 (Appendix I, Page 1, Line 5) and include $215,032,494 of environmental project jurisdictional revenue requirements for the January 2013 through December 2013 period (Appendix I, Page 1, Line 1c) decreased by the actual/estimated true-up over-recovery of $7,620 for the January 2012 - December 2012 period (Appendix I, Page 1, Line 2), and by the final true-up over-recovery of $976,912 for the January 2011 – December 2011 period (Appendix I, Page 1, Line 3).

Q. Please describe Forms 42-2P and 42-3P.

A. Form 42-2P (Appendix I, Pages 2 and 3) presents the environmental project O&M costs for the projected period along with the calculation of total jurisdictional costs for these projects, classified by energy and demand. FPL is projecting total jurisdictional O&M costs of $31,753,383 for the period January 2013 through December 2013.

Form 42-3P (Appendix I, Pages 4 and 5) presents the environmental project capital investment costs for the projected period. Form 42-3P also provides the calculation of total jurisdictional costs for these projects, classified by energy and demand. FPL is projecting total jurisdictional capital investment costs of $183,279,110 for the period January 2013 through December 2013.

The method of classifying costs presented in Forms 42-2P and 42-3P is consistent with Order No. PSC-94-0393-FOF-EI for all projects.

Q. Please describe Form 42-4P.

A. Form 42-4P (Appendix I, Pages 6 through 38) presents the calculation of depreciation expense and return on capital investment for each project for the projected period.

Q. Has FPL made any changes to the methodology for calculating the allowable return on investments recovered through the ECRC?

A. Yes. Per the Stipulation and Settlement Agreement approved by the Commission in this docket on August 14, 2012, FPL is using the Weighted Average Cost of Capital from its May 2012 Earnings Surveillance Report to calculate the return on average net investments included for recovery through the ECRC.

Q. Please describe Form 42-5P.

A. Form 42-5P (Appendix I, Pages 39 through 109) provides the description and progress of environmental projects included in the projected period.

Q. Please describe Form 42-6P.

A. Form 42-6P (Appendix I, Page 110) calculates the allocation factors for demand and energy at generation. The demand allocation factors are calculated by determining the percentage each rate class contributes to the monthly system peaks. The energy allocators are calculated by determining the percentage each rate class contributes to total kWh sales, as adjusted for losses.

Q. Have you revised the methodology used to allocate projected kWh sales by rate class?

A. Yes. FPL's sales forecast is developed on a revenue class basis and must be allocated to the rate schedule level in order to calculate its CCR factors by rate schedule. In the past, FPL has allocated its projected kWh sales by rate schedule based on the relationship of each rate schedule's actual kWh sales to total retail kWh sales from the last 12 months of actual sales.

For 2013, FPL is adopting the methodology used in its base rate proceedings, which allocates kWh sales by rate schedule based on the historical relationship between sales by rate schedule, and sales by revenue class. These historical percentages are then applied to the forecast of sales by revenue class. The result is an estimate of sales by retail rate schedule for the appropriate time period.

Q. Please describe Form 42-7P.

A. Form 42-7P (Appendix I, Page 111) presents the calculation of the proposed 2013 ECRC factors by rate class.

Q. Please describe Form 42-8P.

A. Form 42-8P (Appendix I, Page 112) presents the capital structure, components and cost rates relied upon to calculate the revenue requirement rate of return applied to capital investments and working capital amounts included for recovery through the ECRC for the period January 2013 through December 2013.

Q. Is FPL proposing any changes to its approved Port Everglades ESP Project resulting from its petition for a determination of need in Docket No. 110309-EI?

A. Yes. FPL is currently recovering the costs associated with the ESPs on the existing units at the Port Everglades Plant (PPE) through the ECRC and proposes to complete recovery of those ESPs in the ECRC through a capital recovery schedule. The Commission entered Order PSC-12-0187-FOF-EI in Docket No. 110309-EI granting FPL an affirmative determination of need to modernize the 1960's Port Everglades Plant into a high-efficiency combined cycle natural gas energy center. Assuming final approval of site certification for this modernization plan, all of the existing PPE units will be retired effective January 2013. FPL is requesting to include in its 2013 ECRC factors the recovery of the unrecovered net investment balance of the PPE ESPs at the time of the planned retirement on a four year capital recovery schedule beginning January 1, 2013.

Q. Has FPL proposed any adjustment to ECRC recovery in its rate case petition and supporting testimony and exhibits that were filed in Docket No. 120015-EI?

A. As stated in FPL witness Kim Ousdahl's testimony filed in Docket No. 120015-EI, FPL is proposing to recover all costs associated with FPL's approved Substation Pollutant Discharge Prevention Project through the ECRC and remove them from base rates. Order No. PSC-97-1047-FOF-EI, issued on September 5, 1997, required FPL to adjust ECRC O&M expenses downward for costs related to substation transformer gasket replacement, substation soil contamination remediation and the painting of the substation transformers because those historical cost levels were deemed to be already recovered through base rates. FPL has been reducing clause recoverable expenses by approximately $47 thousand per month and including the same amount in base rate O&M cost. In the rate case docket, FPL is asking the Commission to discontinue the current treatment and approve the Company's adjustment to decrease base rates in the annual amount of $560 thousand and include actual costs incurred on an ongoing basis in the determination of ECRC recoverable costs. Should FPL's rate case request be approved, FPL will reflect the results in the 2013 true-up process.

Q. Have you made any adjustments to FPL's 2013 ECRC factors to reflect the proposed Stipulation and Settlement Agreement (the Agreement) filed in Docket No. 120015-EI on August 15, 2012 ?

A. No. At the time that I prepared my testimony, the Commission had not ruled on the Agreement. If the Agreement is approved, FPL will reflect the results in the 2013 true-up process.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF RANDALL R. LABAUVE

DOCKET NO. 120007-EI

August 30, 2012

Q. Please state your name and address.

A. My name is Randall R. LaBauve and my business address is 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and in what capacity?

A. I am employed by Florida Power & Light Company (FPL) as Vice President of Environmental Services.

Q. Have you previously testified in this docket?

A. Yes.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present for Commission review and approval for recovery through the Environmental Cost Recovery Clause (ECRC), a new environmental compliance activity, the Numeric Nutrient Criteria Water Quality Standards in Florida Project. This project is associated with sampling, monitoring, and reporting requirements for total phosphorus and total nitrogen (nutrients) discharges at FPL facilities. These requirements will be incorporated into existing National Pollutant Discharge Elimination System (NPDES) permits that will be renewed upon their expiration by the United States Environmental Protection Agency (EPA) or the Florida Department of Environmental Protection (FDEP). Prior to submitting an application for permit renewal to the respective agencies, FPL will need to begin a sampling, monitoring, and summary report process to establish baseline data for the newly created permit parameters. These changes will impact all of the FPL plants located in Florida that withdraw from and discharge to inland Waters of the State. Additionally, my testimony presents an update to FPL's approved Low Level Radioactive Waste Storage Project.

Q. Have you prepared, or caused to be prepared under your direction, supervision, or control, an exhibit in this proceeding?

A. Yes, I am sponsoring the following exhibits:

- RRL-9 - Chapter 62-302, Florida Administrative Code, Surface Water Quality Standards (FDEP Proposed)
- RRL-10 - Title 40 Code of Federal Regulations Part 131, Water Quality Standards for the State of Florida's Lakes and Flowing Waters (EPA)

<u>Numeric Nutrient Criteria Water Quality Standards in Florida Project</u>

Q. Please describe the environmental law or regulation requiring this Project.

A. The State of Florida has historically utilized a narrative nutrient standard criterion to guide management and protection of its waters. Chapter 62-302.530(47) (b), F.A.C., states that "in no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." Several environmental groups in Florida filed a petition in federal court against the EPA alleging the agency failed to comply with its responsibility under the Clean Water Act to oversee the State of Florida in adopting numeric nutrient criteria (*Florida Wildlife Federation, et al. vs. EPA*). In August 2009, the EPA entered a consent decree in the lawsuit under which EPA would publish federal numeric nutrient criteria for Florida and adopt rules for implementation. In December 2010, the EPA noticed the final rule for Water Quality Standards for the State of Florida's Lakes and Flowing Waters in the Federal Register. This rule promulgated numeric water quality for nitrogen/phosphorus pollution in lakes, flowing waters, and springs in order to replace the State of Florida's narrative nutrient provision under Chapter 62-302.530(47) (b), F.A.C.

Based on the EPA action, the FDEP chose to amend Chapter 62-302, F.A.C. Surface Water Quality Standards to include a numeric nutrient criteria component in order to maintain oversight of nutrients within state waters. The FDEP submitted the revised proposal of Chapter 62-302, F.A.C. to the EPA for review and approval in June 2012. The EPA has until January 6, 2013 to implement its final numeric nutrient criteria rule for Florida's freshwaters. In the alternative, the EPA can approve the FDEP revised criteria and withdraw the federal criteria in totality, as requested by the state. The mechanism through which the EPA and FDEP regulate water quality criteria is the NPDES permitting program. Pursuant to the EPA's delegation of authority, FDEP implements the NPDES permitting program in Florida. FPL's Ft. Myers, Manatee, Martin, Putnam, and Sanford plants will be required to do some form of sampling, monitoring, and reporting under the new numeric nutrient standards. The NPDES Industrial Waste Water permits for these facilities will expire and require subsequent renewal beginning in 2012 proceeding through 2017. Compliance requirements under the new rules will begin prior to permit renewal and continue for the life of each facility.

Q. How does FPL plan to comply with these requirements?

A. Regardless of whether the controlling rules end up being EPA's or FDEP's, the rule changes will require sampling, monitoring, reporting, and possible biological health assessments both prior to application for permit renewal and ongoing thereafter. Based on nutrient data, facilities may have to alter water treatment processes to comply with the new standards. FPL's plan to comply with the new requirements is as follows:

1) Total Phosphorus and Total Nitrogen (Nutrient) Sampling, Monitoring, and Reporting – In accordance with this new regulatory requirement, FPL will begin sampling, monitoring, and creating summary reports for nutrients in preparation for application and renewal of the FPL Industrial Waste Water permits issued for power generation facilities adjacent to freshwaters in Florida. Under the new EPA or FDEP rules, FPL expects that all new Industrial Waste Water permits will include revised conditions requiring FPL to conduct monthly sampling, monitoring, and reporting at the intake and outfall structures for levels of nutrients to evaluate the effects of each plant's effluent on established numeric thresholds or load input to the receiving waterbodies. Previous Industrial Waste Water permits either had no requirement for nutrient sampling and reporting or required only monthly sampling at the point of discharge with no reportable limits. To show compliance with the new standards, samples will be collected upstream and downstream of the discharge points. The upstream sample will characterize background conditions, and the downstream sample will characterize the

potential difference in water quality as a result of the discharge. At the intake structure, samples will be collected to quantify the amount of nutrients being drawn into the facility from the ambient waterbody. Based on the comparative sampling results of the nutrient loads withdrawn and discharged, water chemistry treatment changes may be necessary within a facility's water processes.

2) Biological Health Assessments – The EPA and FDEP have placed great importance on the inclusion of biological data in the assessment and determination of compliance with nutrient regulations. For facilities that discharge into waterbodies that have not undergone a site-specific alternative criteria assessment or total maximum daily load approval process, biological health assessments (e.g. Stream Condition Index procedure or Shannon-Weaver Diversity Index method) are necessary to identify and document ambient or anthropogenic conditions which may contribute to adverse biological effects or improvements within a specific portion of a waterbody. The assessment determines whether a site specific interpretation is appropriate. Both the EPA and FDEP rules include site-specific alternative criteria as integral components in evaluating exposure and compliance with nutrient criteria. "Site-specific alternative criteria" is a mechanism to demonstrate that an alternative criterion is more appropriate for portions of a waterbody that do not meet ambient water quality criterion due to natural background conditions or man-induced conditions which cannot be controlled or abated. The Stream Condition Index and Shannon-Weaver Diversity Index establish biological information which may be used to interpret the narrative nutrient criterion in combination with nutrient thresholds. For certain waterbodies, a biological health assessment is crucial in determining

how FPL will comply with the new regulation. The biological health assessment also establishes a baseline for future compliance tracking. FPL plans to prepare a Biological Health Assessment for each individual plant pursuant to Rule 62-302.800, F.A.C. or 40 CFR Part 131(V)(C).

3) Modification to the Martin Plant Water Treatment System – The Martin Plant withdraws facility makeup water from the St. Lucie Canal (C-44), which is fed by Lake Okeechobee. Both of these waterbodies are high nutrient loaded waterbodies; thus, it may be necessary to change the storage and treatment process to dilute or remove nutrient concentrations prior to discharge. To accomplish this design change, infrastructure will have to be installed and the flow process for treating the effluent will have to be changed.

Q. What are the projected total O&M costs associated with Project requirements?

A. FPL expects to incur the following O&M costs for the Project:

Nutrient Water Sampling, Biological Health Assessments (Stream Condition Indexing), Water Chemistry Changes: Total O&M costs are estimated to be $1,600,000 for years 2013 through 2017. Costs associated with the new regulation will continue for the life of each facility.

Q. What are the projected total capital costs necessary to complete these requirements?

A. The only capital costs currently anticipated for this project are the changes in the Martin Plant Water Treatment System. The total capital costs estimated for those changes are $1,200,000 through 2016.

Q. Has FPL estimated the 2013 ECRC recoverable costs for this Project?

A. Yes. FPL estimated that it will begin incurring costs for the Numeric Nutrient Criteria Project requirements in February 2013. FPL's cost estimate for sampling of nutrients at its facilities is $48,600 annually per facility. FPL anticipates that it will need to begin nutrient sampling, monitoring, and creating summary reports for the Ft. Myers, Martin, Putnam, and Sanford plants in 2013, at a total O&M cost of $194,400. Sampling of nutrients will be on-going for all facilities thereafter. FPL's 2013 O&M cost estimates for implementing water chemistry treatment changes are estimated annually at $100,000 each for the Putnam and Sanford plants. FPL's 2013 O&M cost estimates for implementing the Biological Health Assessment are estimated annually at $12,000 each for the Ft. Myers, Martin, Putnam, and Sanford plants. Biological Health Assessments will be on-going for all facilities thereafter.

Q. How will FPL ensure that the costs incurred for the Project are prudent and reasonable?

A. Consistent with our standard practice for all consultant service procurements, FPL will competitively bid all of the activities performed by outside firms to ensure costs are prudently incurred. FPL will revise project estimates as specific costs become available through consultant specific bids and costs. FPL will continue to perform due diligence over the life of this project to minimize costs.

Q. Is FPL recovering the costs of these activities through any other mechanism?

A. No. As I previously stated in my testimony, some of the old permits had sampling and monitoring requirements for total phosphorus and total nitrogen, but FPL is not seeking to recover any of those existing costs through the ECRC. Rather, FPL is only seeking recovery for new incremental costs incurred as a result of the new rule requirements.

UPDATE TO LOW LEVEL RADIOACTIVE WASTE STORAGE PROJECT

Q. Please briefly discuss FPL's approved Low Level Radioactive Waste Storage Project?

A. FPL's Low Level Radioactive Waste ("LLW") Storage Project was approved by the Commission in Order No. PSC-07-0922-FOF-EI, issued in Docket No. 070007-EI, on November 16, 2007. In this Order, FPL received approval to recover costs associated with the construction of interim on-site facilities at its St. Lucie ("PSL") and Turkey Point ("PTN") nuclear electrical generating units to store its Class B and Class C LLW safely per NRC regulations regarding Standards for Protection Against Radiation at Title I O, Code of Federal Regulations, Part 20. The project was required as a result of loss of access to the LLW disposal facility in Barnwell, South Carolina on June 30, 2008, due to changes to South Carolina environmental law. LLW is physically similar to the type of wastes that are produced in other industrial processes except that LLW has become contaminated with radioactive isotopes that were produced by the nuclear reactor. LLW includes radioactively contaminated rags, absorbents, used protective clothing, laboratory ware, worn out metal parts and components, spent ion exchange (resin) media and spent filter media.

At the time of its original filing in 2007, FPL's preliminary capital estimate to construct the interim storage facilities was approximately $12 million for both of

FPL's nuclear plants. This estimate assumed the interim storage facilities would be constructed within the Radiation Controlled Area (RCA) at PSL and PTN, on a concrete or gravel pad foundation with appropriate concrete curbs. The LLW would be containerized in cylindrical liners compatible with the LLW that is being stored. The liners would be placed inside engineered thick concrete outer containers that completely enclose the liners and would provide both radiation shielding and protection for the enclosed liners. The container array within the facility would be surrounded by an additional shield wall and measures would be implemented to prevent inadvertent entry to ensure radiation standards for the public and for workers are met.

Q. What is the current status of FPL's approved LLW Project at PSL and PTN?

A. The PTN LLW Storage Facility project schedule has been created and the Engineering Package has been completed and issued for construction. A contractor has been selected and contracts are in the process of being created. The construction of the LLW Storage Facility at PTN is planned to commence in September of 2012 and is expected to be completed by September of 2013.

The PSL LLW Storage Facility project has been placed on hold as a result of resources being dedicated to other projects. Completion of the LLW Facility will resume in January of 2013 with the installation of the fiber optics for the fire detection system, installation of the internal shielding, and the rails for the gantry crane.

Q. Please explain the reason for the update to the FPL's approved LLW.

A. The site location for the PTN LLW facility was selected on January 6, 2011. FPL's current capital estimate for the construction of the LLW facility at PTN is now $9.9 million, which represents an increase of $3.9 million from FPL's original estimate provided in 2007. The location selected within the RCA has created additional costs not anticipated in the original estimate. Additional costs include the soil improvements required for the foundation of the building. Other costs include reinforced concrete foundation and slab over the existing Neutralization Basin, relocation of existing power poles and duct banks and additional time and support due to the construction within the RCA.

Q. How was the LLW site at PTN chosen?

A. The project team conducted a Kepner Tregoe (KT) Analysis of ten different construction locations for the PTN LLW. This analysis utilized a list of criteria that determined the location, based on scoring in each criteria. These criteria included cost factors, site preparation, underground utilities to be avoided, adequate area for building footprint, radiological impact, site elevation (flood plain), accessibility, impact on plant operations, etc. The results of the KT Analysis determined the LLW facility at PTN.

Q. What is the amount of projected depreciation and return on investment associated with this project that has been included in the 2013 ECRC factors?

A. FPL has included in the 2013 ECRC factors an amount of $747,474 associated with depreciation and return on investment for the LLW Storage Project.

Q. Does this conclude your testimony?

A. Yes.

APPENDIX I

ENVIRONMENTAL COST RECOVERY

COMMISSION FORMS 42-1P THROUGH 42-8P
JANUARY 2013 – DECEMBER 2013

TJK-3
DOCKET NO. 120007-EI
FPL WITNESS: T.J. KEITH
EXHIBIT ______
PAGES 1-112

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
TOTAL JURISDICTIONAL AMOUNT TO BE RECOVERED
ESTIMATED FOR THE PERIOD: JANUARY 2013 - DECEMBER 2013

(1)	(2)	(3)	(4)	(5)
	Energy	CP Demand	GCP Demand	Total
1. Total Jurisdictional Revenue Requirements for the projected period				
a. Projected O&M Activities	$18,093,629	$12,023,609	$1,636,146	$31,753,383
b. Projected Capital Projects	$35,838,468	$147,440,643	$0	$183,279,110
c. Total Jurisdictional Revenue Requirements	$53,932,097	$159,464,251	$1,636,146	$215,032,494
2. True-up for Estimated Over/(Under) Recovery	$1,485	$6,083	$52	$7,620
3. Final True-up Over/(Under)	$189,521	$777,427	$9,965	$976,912
4. Total Jurisdictional Amount to be Recovered/(Refunded)	$53,741,091	$158,680,741	$1,626,130	$214,047,962
5. Total Projected Jurisdictional Amount Adjusted for Taxes	$53,779,784	$158,794,992	$1,627,300	$214,202,076

Note: Allocation to energy and demand in each period are in proportion to the respective period split of costs.

True-up costs are split in proportion to the split of actual demand-related and energy-related costs from respective true-up periods.

Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
CALCULATION OF THE PROJECTION AMOUNT
ESTIMATED FOR THE PERIOD: JANUARY 2013 - DECEMBER 2013

FORM: 42-2P

O&M ACTIVITIES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
PROJECT #	Monthly Data													Method of Classification		
	January Estimsted	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount	Energy	CP Demand	GCP Demand
1. Description of O&M Activities																
1 - Air Operating Permit Fees	$24,083	$24,083	$24,083	$24,083	$24,083	$24,083	$24,083	$24,083	$24,083	$24,083	$24,083	$24,087	$289,000	$269,000		
3a - Continuous Emission Monitoring Systems	$155,194	$190,079	$37,329	$30,579	$30,579	$45,329	$155,194	$30,579	$37,328	$30,578	$30,575	$43,055	$816,398	$816,398		
5e - Maintenance of Stationary Above Ground Fuel Storage Tanks	$84,500	$55,500	$756,836	$268,005	$251,200	$900,000	$200,000	$222,000	$850,000	$0	$0	$0	$3,588,041		$3,588,041	
6a - Oil Spill Clean-up/Response Equipment	$12,049	$12,049	$42,715	$12,049	$47,049	$42,715	$12,048	$12,048	$42,715	$22,330	$22,048	$12,048	$291,883	$291,883		
13 - RCRA (Resource Conservation & Recovery Act) Corrective Action	$4,166	$4,166	$4,166	$4,166	$4,167	$4,167	$4,167	$4,167	$4,167	$4,167	$4,167	$4,187	$50,000		$50,000	
14 - NPDES Permit Fees	$115,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$115,200		$115,200	
17a - Disposal of Non-Containerized Liquid Waste	$30,000	$30,000	$36,000	$62,500	$0	$0	$0	$2,500	$0	$0	$0	$0	$161,000	$161,000		
19a - Substation Pollutant Discharge Prevention & Removal - Distribution	$159,688	$159,688	$159,688	$159,686	$159,688	$159,688	$159,688	$159,686	$159,688	$159,688	$159,688	$159,694	$1,916,262			$1,916,262
19b - Substation Pollutant Discharge Prevention & Removal - Transmission	$101,817	$101,817	$101,617	$101,817	$101,617	$101,817	$101,817	$101,817	$101,817	$101,817	$101,817	$101,828	$1,221,815	$93,986	$1,127,629	
19c - Substation Pollutant Discharge Prevention & Removal - Costs in Base Rates	($46,686)	($46,686)	($48,686)	($46,666)	($46,686)	($46,686)	($46,686)	($48,686)	($46,666)	($46,686)	($46,686)	($46,686)	($560,232)	($21,547)	($258,589)	($280,116)
NA - Amortization of Gains on Sales of Emissions Allowances	($48,048)	($48,048)	($46,048)	($46,048)	($46,718)	($46,162)	($48,182)	($48,182)	($46,182)	($46,182)	($46,182)	($46,182)	($554,186)	($554,186)		
22 - Pipeline Integrity Management	$0	$0	$15,000	$150,000	$11,000	$0	$30,000	$0	$7,500	$40,000	$40,000	$0	$293,500		$293,500	
23 - SPCC - Spill Prevention, Control & Countermeasures	$76,045	$75,466	$75,468	$75,468	$77,307	$75,467	$75,487	$76,044	$75,487	$77,307	$86,287	$85,481	$931,256		$931,258	
24 - Manatee Reburn	$41,667	$41,667	$41,687	$41,667	$41,667	$41,887	$41,667	$41,667	$41,667	$41,667	$41,667	$41,663	$500,000	$500,000		
25 - Pt. Everglades ESP Technology	$24,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$24,000	$24,000		
27 - Lowest Quality Water Source	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,443	$27,443	$27,443	$27,443	$27,443	$329,309		$329,309	
28 - CWA 316(b) Phase II Rule	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$8,775	$8,775	$8,775	$16,775	$107,504	$107,504	$264,108		$264,108	
29 - SCR Consumables	$29,166	$29,188	$29,166	$29,166	$29,166	$29,186	$29,166	$29,166	$29,166	$29,166	$29,166	$29,174	$350,000	$350,000		
30 - HBMP	$1,833	$1,833	$1,833	$1,833	$1,833	$1,833	$1,833	$1,833	$1,833	$1,833	$1,833	$1,837	$22,000		$22,000	
31 - Clean Air Interstate Rule (CAIR) Compliance	$672,838	$872,838	$692,838	$710,638	$711,838	$891,838	$692,836	$757,960	$777,960	$757,960	$777,960	$757,986	$8,675,688	$6,875,888		
33 - MATS Project	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$250,250	$3,003,000	$3,003,000		
35 - Martin Plant Drinking Water System Compliance	$0	$0	$5,000	$0	$0	$5,000	$0	$0	$5,000	$0	$0	$5,000	$20,000		$20,000	
37 - DeSoto Next Generation Solar Energy Center	$98,331	$81,651	$154,001	$108,881	$81,301	$92,651	$87,001	$88,851	$86,831	$82,151	$86,301	$82,151	$1,127,902		$1,127,902	
38 - Space Coast Next Generation Solar Energy Center	$25,958	$26,858	$37,386	$27,071	$26,358	$36,966	$26,456	$30,456	$29,356	$26,986	$26,356	$32,955	$353,178		$353,176	
39 - Martin Next Generation Solar Energy Center	$258,801	$258,801	$258,801	$258,801	$256,801	$258,801	$258,801	$258,601	$258,801	$258,801	$258,801	$256,801	$3,105,612		$3,105,812	
40 - Greenhouse Gas Reduction Program	$0	$0	$0	$8,500	$0	$0	$0	$0	$0	$0	$0	$0	$8,500	$8,500		
41 - Manatee Temporary Heating System	$152,967	$142,218	$107,250	$96,263	$44,371	$33,365	$33,365	$33,365	$34,878	$29,962	$110,000	$112,000	$930,000	$930,000		
42 - Turkey Point Cooling Canal Monitoring Plan	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$203,500	$2,442,000	$2,442,000		
45 - 800 MW Unit ESP	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$170,000	$170,000	$170,000	$170,000	$172,087	$1,447,087	$1,447,087		
46 - St. Lucie Cooling Water Discharge Monitoring	$27,334	$25,715	$59,044	$11,334	$43,854	$25,715	$45,473	$9,715	$59,854	$10,525	$43,044	$27,334	$388,941		$388,941	
47 - NPDES Permit Renewal Requirements	$0	$2,200	$15,200	$0	$6,800	$10,000	$18,500	$18,500	$5,200	$10,000	$25,100	$0	$113,500		$113,500	
46 - Industrial Boiler MACT	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	$0	$1,000		$1,000	
49 - Thermal Discharge Standards	$0	$35,000	$0	$35,000	$0	$35,000	$0	$35,000	$0	$35,000	$0	$0	$175,000		$175,000	
50 - Steam Electric Effluent Guidelines Revised Rules	$0	$0	$45,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$45,000		$45,000	
51 - Gopher Tortoise Relocations	$0	$0	$0	$0	$0	$0	$0	$37,500	$0	$0	$0	$0	$37,500		$37,500	
52 - Numeric Nutrient Criteria Water Quality Standards in Florida	$0	$0	$442,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$442,400		$442,400	
2. Total of O&M Activities	$2,570,093	$2,445,250	$3,817,145	$2,692,166	$2,428,865	$3,089,612	$2,479,663	$2,540,640	$3,201,409	$2,319,121	$2,534,702	$2,447,177	$32,365,640	$18,456,789	$12,272,706	$1,636,146

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
CALCULATION OF THE PROJECTION AMOUNT
ESTIMATED FOR THE PERIOD: JANUARY 2013 - DECEMBER 2013

FORM: 42-2P

O&M ACTIVITIES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
2. Total of O&M Activities	$2,570,093	$2,445,250	$3,617,145	$2,692,166	$2,428,665	$3,089,612	$2,479,663	$2,540,640	$3,201,409	$2,319,121	$2,534,702	$2,447,177	$32,365,640
3. Recoverable Costs Allocated to Energy	$1,640,702	$1,640,836	$1,509,786	$1,514,383	$1,426,821	$1,406,767	$1,486,965	$1,514,972	$1,571,399	$1,519,350	$1,619,103	$1,605,705	$18,456,789
4a. Recoverable Costs Allocated to CP Demand	$793,046	$668,070	$1,971,015	$1,041,439	$865,499	$1,546,500	$856,353	$889,323	$1,493,665	$663,426	$779,254	$705,121	$12,272,706
4b. Recoverable Costs Allocated to GCP Demand	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,351	$1,636,146
5. Retail Energy Jurisdictional Factor	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	
6a. Retail CP Demand Jurisdictional Factor	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	
6b. Retail GCP Demand Jurisdictional Factor	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	100.00000%	
7. Jurisdictional Energy Recoverable Costs	$1,608,419	$1,608,550	$1,480,079	$1,484,586	$1,398,747	$1,379,087	$1,457,707	$1,485,163	$1,540,480	$1,489,455	$1,587,245	$1,574,111	$18,093,629
8a. Jurisdictional CP Demand Recoverable Costs	$776,949	$654,510	$1,931,009	$1,020,301	$847,932	$1,515,110	$838,971	$871,272	$1,463,348	$649,960	$763,437	$690,809	$12,023,609
8b. Jurisdictional GCP Demand Recoverable Costs	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,345	$136,351	$1,636,146
9. Total Jurisdictional Recoverable Costs for O&M Activities	$2,521,714	$2,399,405	$3,547,433	$2,641,231	$2,383,024	$3,030,543	$2,433,023	$2,492,780	$3,140,173	$2,275,760	$2,487,027	$2,401,271	$31,753,383

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
CALCULATION OF THE PROJECTION AMOUNT
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CAPITAL INVESTMENT PROJECTS - RECOVERABLE COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Monthly Data													Method of Classification	
PROJECT #	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount	Energy	Demand
1. Description of Investment Projects [a]															
2 - Low NOX Burner Technology	$15,024	$15,196	$15,118	$15,039	$14,961	$14,883	$14,804	$14,726	$14,648	$14,569	$14,491	$14,413	$177,872	$177,872	
3b - Continuous Emission Monitoring Systems	$42,429	$41,231	$41,081	$40,932	$42,216	$43,497	$43,340	$43,648	$43,955	$44,947	$45,936	$45,772	$518,963	$518,983	
4b - Clean Closure Equivalency	$118	$106	$106	$108	$105	$105	$105	$104	$104	$104	$103	$103	$1,270	$98	$1,172
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	$77,293	$76,269	$78,103	$75,937	$75,771	$75,606	$75,440	$75,274	$75,108	$74,942	$74,777	$74,611	$907,131	$69,779	$837,352
7 - Relocate Turbine Lube Oil Underground Piping to Above Ground	$123	$123	$122	$122	$121	$121	$120	$120	$119	$119	$118	$118	$1,447	$111	$1,335
8b - Oil Spill Clean-up/Response Equipment	$14,416	$12,954	$13,132	$13,308	$13,587	$13,788	$13,415	$13,205	$13,229	$12,903	$12,780	$12,902	$159,618	$12,278	$147,340
10 - Relocate Storm Water Runoff	$661	$660	$659	$657	$656	$654	$653	$652	$650	$649	$646	$646	$7,846	$604	$7,242
12 - Scherer Discharge Pipeline	$4,451	$4,438	$4,425	$4,413	$4,400	$4,387	$4,375	$4,362	$4,349	$4,337	$4,324	$4,311	$52,573	$4,044	$48,529
20 - Wastewater Discharge Elimination & Reuse	$8,105	$6,989	$6,975	$6,962	$6,948	$6,935	$6,921	$6,908	$6,895	$6,881	$6,868	$6,654	$84,240	$6,480	$77,760
NA - Amortization of Gains on Sales of Emissions Allowances	($9,151)	($8,793)	($8,435)	($6,078)	($7,730)	($7,381)	($7,022)	($6,683)	($6,304)	($5,945)	($5,586)	($5,227)	($86,317)	($66,317)	
21 - St. Lucie Turtle Nets	$8,716	$8,711	$8,707	$8,703	$8,699	$8,695	$8,691	$8,687	$8,683	$8,679	$8,674	$24,769	$120,414	$9,263	$111,151
22 - Pipeline Integrity Management	$28,468	$28,427	$28,386	$28,583	$28,779	$28,737	$28,696	$28,654	$28,612	$28,571	$28,529	$28,487	$342,928	$26,379	$316,549
23 - SPCC - Spill Prevention, Control & Countermeasures	$138,391	$127,057	$126,868	$128,815	$130,757	$130,559	$130,361	$130,206	$130,050	$129,852	$129,653	$129,455	$1,562,026	$120,156	$1,441,870
24 - Manatee Reburn	$263,800	$263,275	$262,751	$262,226	$261,701	$261,178	$260,651	$260,126	$259,801	$259,076	$256,551	$258,026	$3,130,961	$3,130,961	
25 - Pt. Everglades ESP Technology	$1,973,809	$1,811,064	$1,800,725	$1,790,385	$1,780,046	$1,769,707	$1,759,368	$1,749,029	$1,738,689	$1,728,350	$1,716,011	$1,707,672	$21,326,855	$21,326,855	
26 - UST Remove/Replacement	$918	$916	$915	$913	$911	$910	$908	$907	$905	$904	$902	$900	$10,909	$839	$10,070
31 - Clean Air Interstate Rule (CAIR) Compliance	$5,003,021	$4,999,003	$4,999,318	$4,999,097	$4,998,913	$4,996,527	$4,990,997	$4,984,367	$4,977,492	$4,970,390	$4,963,372	$4,957,444	$59,839,942	$4,603,072	$55,236,869
33 - MATS Project	$1,005,961	$1,004,900	$1,004,363	$1,003,501	$1,002,541	$1,001,549	$1,000,615	$999,624	$998,580	$997,541	$996,504	$995,480	$12,011,159	$923,935	$11,087,224
34 - St Lucie Cooling Water System Inspection & Maintenance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$17,946	$17,946	$1,380	$16,565
35 - Martin Plant Drinking Water System Compliance	$2,095	$2,092	$2,089	$2,086	$2,082	$2,079	$2,076	$2,073	$2,070	$2,066	$2,063	$2,060	$24,932	$1,918	$23,014
36 - Low-Level Radioactive Waste Storage	$58,364	$58,289	$58,214	$58,139	$58,063	$57,988	$57,913	$57,838	$57,762	$57,687	$57,612	$108,284	$744,133	$57,241	$686,892
37 - DeSoto Next Generation Solar Energy Center	$1,405,342	$1,401,788	$1,398,287	$1,394,785	$1,391,231	$1,387,676	$1,384,122	$1,380,568	$1,377,013	$1,373,459	$1,369,905	$1,366,350	$16,630,525	$1,279,271	$15,351,254
38 - Space Coast Next Generation Solar Energy Center	$866,615	$664,962	$663,310	$661,556	$659,937	$658,417	$656,765	$655,112	$653,460	$651,807	$650,154	$648,502	$7,890,598	$606,969	$7,283,629
39 - Martin Next Generation Solar Energy Center	$3,949,243	$3,939,421	$3,936,399	$3,945,848	$3,948,459	$3,938,562	$3,936,437	$3,949,057	$3,953,857	$3,943,865	$3,933,673	$3,923,880	$47,298,902	$3,636,377	$43,660,525
41 - Manatee Temporary Heating System	$105,251	$105,820	$105,757	$105,817	$105,858	$105,925	$106,013	$106,052	$106,046	$106,081	$106,162	$106,199	$1,270,763	$97,753	$1,173,031
42 - Turkey Point Cooling Canal Monitoring Plan	$32,172	$32,131	$32,089	$32,047	$32,005	$31,963	$31,922	$31,880	$31,838	$31,798	$31,755	$31,713	$383,311	$29,485	$353,825
44 - Martin Plant Barley Barber Swamp Iron Mitigation	$1,526	$1,524	$1,522	$1,520	$1,517	$1,515	$1,513	$1,511	$1,506	$1,506	$1,504	$1,502	$18,168		$18,168
45 - 800 MW Unit ESP	$827,055	$858,429	$876,367	$891,068	$905,816	$927,577	$971,067	$1,082,060	$1,204,276	$1,298,006	$1,362,092	$1,400,038	$12,603,853		$12,603,853
2. Total Investment Projects - Recoverable Costs	$15,624,217	$15,456,782	$15,455,351	$15,464,487	$15,468,352	$15,462,158	$15,480,266	$15,580,086	$15,683,200	$15,743,140	$15,773,775	$15,861,193	$187,053,006	$36,557,787	$150,495,219

[a] Each project's Total System Recoverable Expenses on Form 42-4P, Line 9.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
CALCULATION OF THE PROJECTION AMOUNT
ESTIMATED FOR THE PERIOD: JANUARY 2013 - DECEMBER 2013

FORM: 42-3P

CAPITAL INVESTMENT PROJECTS - RECOVERABLE COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
2. Total Investment Projects - Recoverable Costs	$15,624,217	$15,456,782	$15,455,351	$15,464,487	$15,468,352	$15,462,158	$15,480,266	$15,580,086	$15,683,200	$15,743,140	$15,773,775	$15,861,193	$187,053,006
3. Recoverable Costs Allocated to Energy	$3,246,196	$3,081,577	$3,070,179	$3,059,843	$3,050,412	$3,039,665	$3,027,799	$3,017,454	$3,006,498	$2,995,046	$2,983,616	$2,977,502	$36,557,787
4. Recoverable Costs Allocated to Demand	$12,376,019	$12,375,205	$12,385,172	$12,404,644	$12,417,940	$12,422,493	$12,452,467	$12,562,632	$12,676,702	$12,748,095	$12,790,158	$12,883,691	$150,495,219
5. Retail Energy Jurisdictional Factor	98.03238%	98.03238%	96.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	
6. Retail Demand Jurisdictional Factor	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	
7. Jurisdictional Energy Recoverable Costs [a]	$3,184,286	$3,020,943	$3,009,769	$2,999,636	$2,990,391	$2,979,855	$2,988,223	$2,958,082	$2,947,342	$2,936,114	$2,924,910	$2,918,916	$35,838,468
8. Jurisdictional Demand Recoverable Costs [b]	$12,124,825	$12,124,028	$12,133,792	$12,152,869	$12,165,896	$12,170,356	$12,199,721	$12,307,650	$12,419,405	$12,489,349	$12,530,559	$12,822,193	$147,440,643
9. Total Jurisdictional Recoverable Costs for Investment Projects	$15,309,110	$15,144,971	$15,143,562	$15,152,506	$15,156,287	$15,150,211	$15,167,944	$15,265,732	$15,366,747	$15,425,463	$15,455,469	$15,541,109	$183,279,110

[a] Line 3 x Line 5

[b] Line 4 x Line 6

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
2 - Low NOX Burner Technology														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($5,058,205)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($5,058,205)
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		($5,122,577)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($5,122,577)
2. Plant-In-Service/Depreciation Base [a]	$9,896,803	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	$4,838,598	N/A
3. Less: Accumulated Depreciation	$9,287,850	$4,175,354	$4,185,434	$4,195,515	$4,205,595	$4,215,675	$4,225,756	$4,235,836	$4,245,917	$4,255,997	$4,266,077	$4,276,158	$4,286,238	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$608,952	$663,244	$653,164	$643,084	$633,003	$622,923	$612,842	$602,762	$592,682	$582,601	$572,521	$562,440	$552,360	N/A
6. Average Net Investment		$636,098	$658,204	$648,124	$638,043	$627,963	$617,883	$607,802	$597,722	$587,641	$577,561	$567,481	$557,400	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$4,036	$4,176	$4,112	$4,048	$3,984	$3,920	$3,856	$3,792	$3,728	$3,664	$3,600	$3,536	$46,453
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$908	$940	$925	$911	$897	$882	$868	$853	$839	$825	$810	$796	$10,454
8. Investment Expenses														
a. Depreciation [d]		$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$10,080	$120,965
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$15,024	$15,196	$15,118	$15,039	$14,961	$14,883	$14,804	$14,726	$14,648	$14,569	$14,491	$14,413	$177,872

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
3b - Continuous Emission Monitoring Systems														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($2,159,043)	$0	$0	$0	$257,000	$0	$0	$88,500	$0	$212,000	$0	$0	($1,601,543)
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		($1,889,200)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($1,889,200)
2. Plant-In-Service/Depreciation Base [a]	$9,368,408	$7,209,364	$7,209,364	$7,209,364	$7,209,364	$7,466,364	$7,466,364	$7,466,364	$7,554,864	$7,554,864	$7,766,864	$7,766,864	$7,766,864	N/A
3. Less: Accumulated Depreciation	$6,239,593	$4,369,628	$4,388,863	$4,408,098	$4,427,332	$4,447,004	$4,467,112	$4,487,220	$4,507,448	$4,527,797	$4,548,474	$4,569,477	$4,590,481	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$3,128,815	$2,839,736	$2,820,501	$2,801,267	$2,782,032	$3,019,361	$2,999,252	$2,979,144	$3,047,416	$3,027,067	$3,218,391	$3,197,387	$3,176,383	N/A
6. Average Net Investment		$2,984,275	$2,830,119	$2,810,884	$2,791,649	$2,900,696	$3,009,307	$2,989,198	$3,013,280	$3,037,241	$3,122,729	$3,207,889	$3,186,885	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$18,933	$17,955	$17,833	$17,711	$18,403	$19,092	$18,964	$19,117	$19,269	$19,812	$20,352	$20,219	$227,661
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$4,261	$4,041	$4,013	$3,986	$4,142	$4,297	$4,268	$4,302	$4,337	$4,459	$4,580	$4,550	$51,235
8. Investment Expenses														
a. Depreciation [d]		$19,235	$19,235	$19,235	$19,235	$19,671	$20,108	$20,108	$20,229	$20,349	$20,676	$21,004	$21,004	$240,087
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$42,429	$41,231	$41,081	$40,932	$42,216	$43,497	$43,340	$43,648	$43,955	$44,947	$45,936	$45,772	$518,983

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
4b - Clean Closure Equivalency														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($19,812)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($19,812)
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		($16,767)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($16,767)
2. Plant-In-Service/Depreciation Base [(a)]	$41,612	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	$21,799	N/A
3. Less: Accumulated Depreciation	$29,759	$13,031	$13,069	$13,107	$13,145	$13,183	$13,221	$13,259	$13,297	$13,336	$13,374	$13,412	$13,450	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$11,852	$8,769	$8,731	$8,692	$8,654	$8,616	$8,578	$8,540	$8,502	$8,464	$8,426	$8,387	$8,349	N/A
6. Average Net Investment		$10,310	$8,750	$8,712	$8,673	$8,635	$8,597	$8,559	$8,521	$8,483	$8,445	$8,406	$8,368	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [(b)(g)]		$65	$56	$55	$55	$55	$55	$54	$54	$54	$54	$53	$53	$663
b. Debt Component (Line 6 x debt rate x 1/12) [(c)(g)]		$15	$12	$12	$12	$12	$12	$12	$12	$12	$12	$12	$12	$149
8. Investment Expenses														
a. Depreciation [(d)]		$38	$38	$38	$38	$38	$38	$38	$38	$38	$38	$38	$38	$458
b. Amortization [(e)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [(f)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$118	$106	$106	$106	$105	$105	$105	$104	$104	$104	$103	$103	$1,270

[(a)] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[(b)] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[(c)] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[(d)] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[(e)] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[(f)] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[(g)] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($1,132,078)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($1,132,078)
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		($911,263)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($911,263)
2. Plant-In-Service/Depreciation Base [(a)]	$11,351,926	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	$10,219,848	N/A
3. Less: Accumulated Depreciation	$4,031,083	$3,141,156	$3,162,491	$3,183,827	$3,205,162	$3,226,497	$3,247,833	$3,269,168	$3,290,504	$3,311,839	$3,333,174	$3,354,510	$3,375,845	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$7,320,843	$7,078,692	$7,057,357	$7,038,022	$7,014,686	$6,993,351	$6,972,015	$6,950,680	$6,929,345	$6,908,009	$6,886,674	$6,865,338	$6,844,003	N/A
6. Average Net Investment		$7,199,768	$7,068,025	$7,046,689	$7,025,354	$7,004,019	$6,982,683	$6,961,348	$6,940,012	$6,918,677	$6,897,341	$6,876,006	$6,854,671	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [(b)(g)]		$45,678	$44,842	$44,706	$44,571	$44,436	$44,300	$44,165	$44,030	$43,894	$43,759	$43,624	$43,488	$531,493
b. Debt Component (Line 6 x debt rate x 1/12) [(c)(g)]		$10,280	$10,092	$10,061	$10,031	$10,000	$9,970	$9,939	$9,909	$9,878	$9,848	$9,818	$9,787	$119,613
8. Investment Expenses														
a. Depreciation [(d)]		$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$21,335	$256,025
b. Amortization [(e)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [(f)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$77,293	$76,269	$76,103	$75,937	$75,771	$75,606	$75,440	$75,274	$75,108	$74,942	$74,777	$74,611	$907,131

[(a)] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[(b)] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[(c)] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[(d)] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[(e)] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[(f)] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[(g)] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
7 - Relocate Turbine Lube Oil Underground Piping to Above Ground														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	$31,030	N/A
3. Less: Accumulated Depreciation	$23,133	$23,195	$23,257	$23,319	$23,381	$23,443	$23,505	$23,567	$23,629	$23,691	$23,753	$23,816	$23,878	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$7,897	$7,835	$7,773	$7,711	$7,649	$7,587	$7,525	$7,463	$7,401	$7,339	$7,277	$7,214	$7,152	N/A
6. Average Net Investment		$7,866	$7,804	$7,742	$7,680	$7,618	$7,556	$7,494	$7,432	$7,370	$7,308	$7,246	$7,183	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$50	$50	$49	$49	$48	$48	$48	$47	$47	$46	$46	$46	$573
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$11	$11	$11	$11	$11	$11	$11	$11	$11	$10	$10	$10	$129
8. Investment Expenses														
a. Depreciation [d]		$62	$62	$62	$62	$62	$62	$62	$62	$62	$62	$62	$62	$745
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$123	$123	$122	$122	$121	$121	$120	$120	$119	$119	$118	$118	$1,447

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
8b - Oil Spill Clean-up/Response Equipment														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($366,102)	$0	$19,500	$0	$64,500	$0	($9,275)	($28,144)	($8,505)	$0	($16,488)	$0	($344,514)
c. Retirements		$0	$0	$0	$0	$0	$0	($9,275)	($39,144)	($8,505)	$0	($44,988)	$0	($101,911)
d. Other		($5,506)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($5,506)
2. Plant-In-Service/Depreciation Base [(a)]	$1,284,558	$918,456	$918,456	$937,956	$937,956	$1,002,456	$1,002,456	$993,181	$965,038	$956,533	$956,533	$940,044	$940,044	N/A
3. Less: Accumulated Depreciation	$243,229	$245,477	$253,231	$261,147	$269,226	$277,396	$285,581	$284,180	$252,719	$251,937	$259,392	$221,683	$229,030	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$1,041,329	$672,979	$665,225	$676,809	$668,730	$725,060	$716,875	$709,001	$712,319	$704,596	$697,141	$718,362	$711,014	N/A
6. Average Net Investment		$857,154	$669,102	$671,017	$672,769	$696,895	$720,967	$712,938	$710,660	$708,458	$700,868	$707,751	$714,688	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [(b)(g)]		$5,438	$4,245	$4,257	$4,268	$4,421	$4,574	$4,523	$4,509	$4,495	$4,447	$4,490	$4,534	$54,201
b. Debt Component (Line 6 x debt rate x 1/12) [(c)(g)]		$1,224	$955	$958	$961	$995	$1,029	$1,018	$1,015	$1,012	$1,001	$1,011	$1,020	$12,198
8. Investment Expenses														
a. Depreciation [(d)]		$7,754	$7,754	$7,916	$8,079	$8,170	$8,184	$7,874	$7,682	$7,723	$7,455	$7,279	$7,347	$93,219
b. Amortization [(e)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [(f)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$14,416	$12,954	$13,132	$13,308	$13,587	$13,788	$13,415	$13,205	$13,229	$12,903	$12,780	$12,902	$159,618

[(a)] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[(b)] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[(c)] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[(d)] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[(e)] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[(f)] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[(g)] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
10 - Relocate Storm Water Runoff														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	$117,794	N/A
3. Less: Accumulated Depreciation	$55,346	$55,523	$55,700	$55,876	$56,053	$56,230	$56,406	$56,583	$56,760	$56,936	$57,113	$57,290	$57,466	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$62,448	$62,271	$62,094	$61,918	$61,741	$61,564	$61,388	$61,211	$61,034	$60,857	$60,681	$60,504	$60,327	N/A
6. Average Net Investment		$62,359	$62,183	$62,006	$61,829	$61,653	$61,476	$61,299	$61,122	$60,946	$60,769	$60,592	$60,416	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$396	$395	$393	$392	$391	$390	$389	$388	$387	$386	$384	$383	$4,674
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$89	$89	$89	$66	$88	$88	$88	$87	$87	$87	$87	$86	$1,052
8. Investment Expenses														
a. Depreciation [d]		$177	$177	$177	$177	$177	$177	$177	$177	$177	$177	$177	$177	$2,120
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$661	$660	$659	$657	$656	$654	$653	$652	$650	$649	$648	$646	$7,846

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
12 - Scherer Discharge Pipeline														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	$854,324	N/A
3. Less: Accumulated Depreciation	$490,864	$492,496	$494,128	$495,761	$497,393	$499,025	$500,658	$502,290	$503,922	$505,555	$507,187	$508,819	$510,452	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$363,460	$361,828	$360,195	$358,563	$356,931	$355,298	$353,666	$352,034	$350,401	$348,769	$347,137	$345,504	$343,872	N/A
6. Average Net Investment		$362,644	$361,011	$359,379	$357,747	$356,114	$354,482	$352,850	$351,217	$349,585	$347,953	$346,320	$344,688	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$2,301	$2,290	$2,280	$2,270	$2,259	$2,249	$2,239	$2,226	$2,218	$2,208	$2,197	$2,187	$26,925
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$518	$515	$513	$511	$508	$506	$504	$501	$499	$497	$494	$492	$6,060
8. Investment Expenses														
a. Depreciation [d]		$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$1,632	$19,588
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$4,451	$4,438	$4,425	$4,413	$4,400	$4,387	$4,375	$4,362	$4,349	$4,337	$4,324	$4,311	$52,573

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
20 - Wastewater Discharge Elimination & Reuse														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($437,404)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($437,404)
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		($153,617)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($153,617)
2. Plant-In-Service/Depreciation Base [a]	$1,235,070	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	$797,667	N/A
3. Less: Accumulated Depreciation	$271,880	$119,991	$121,720	$123,448	$125,176	$126,904	$128,633	$130,361	$132,089	$133,817	$135,546	$137,274	$139,002	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$963,190	$677,675	$675,947	$674,219	$672,491	$670,762	$669,034	$667,306	$665,577	$663,849	$662,121	$660,393	$658,664	N/A
6. Average Net Investment		$820,433	$676,811	$675,083	$673,355	$671,626	$669,898	$668,170	$666,442	$664,713	$662,985	$661,257	$659,529	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$5,205	$4,294	$4,283	$4,272	$4,261	$4,250	$4,239	$4,228	$4,217	$4,206	$4,195	$4,184	$51,835
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$1,171	$966	$964	$961	$959	$956	$954	$952	$949	$947	$944	$942	$11,666
8. Investment Expenses														
a. Depreciation [d]		$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$1,728	$20,739
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$8,105	$6,989	$6,975	$6,962	$6,948	$6,935	$6,921	$6,908	$6,895	$6,881	$6,868	$6,854	$84,240

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
21 - St. Lucie Turtle Nets														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,474,724	$3,474,724
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$352,942	$3,827,666	N/A
3. Less: Accumulated Depreciation	($700,592)	($700,063)	($699,533)	($699,004)	($698,474)	($697,945)	($697,416)	($696,886)	($696,357)	($695,827)	($695,298)	($694,769)	($691,633)	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$1,053,534	$1,053,005	$1,052,476	$1,051,946	$1,051,417	$1,050,887	$1,050,358	$1,049,829	$1,049,299	$1,048,770	$1,048,240	$1,047,711	$4,519,299	N/A
6. Average Net Investment		$1,053,270	$1,052,740	$1,052,211	$1,051,681	$1,051,152	$1,050,623	$1,050,093	$1,049,564	$1,049,034	$1,048,505	$1,047,976	$2,783,505	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$6,682	$6,679	$6,676	$6,672	$6,669	$6,665	$6,662	$6,659	$6,655	$6,652	$6,649	$17,659	$90,980
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$1,504	$1,503	$1,502	$1,502	$1,501	$1,500	$1,499	$1,499	$1,498	$1,497	$1,496	$3,974	$20,475
8. Investment Expenses														
a. Depreciation [d]		$529	$529	$529	$529	$529	$529	$529	$529	$529	$529	$529	$3,135	$8,959
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$8,716	$8,711	$8,707	$8,703	$8,699	$8,695	$8,691	$8,687	$8,683	$8,679	$8,674	$24,769	$120,414

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

FORM: 42-4P

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
22 - Pipeline Integrity Management														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$50,000
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$3,013,308	$3,013,308	$3,013,308	$3,013,308	$3,063,308	$3,063,308	$3,063,308	$3,063,308	$3,063,308	$3,063,308	$3,063,308	$3,063,308	$3,063,308	N/A
3. Less: Accumulated Depreciation	$26,380	$31,653	$36,926	$42,200	$47,517	$52,877	$58,238	$63,599	$68,960	$74,321	$79,681	$85,042	$90,403	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$2,986,929	$2,981,655	$2,976,382	$2,971,109	$3,015,792	$3,010,431	$3,005,070	$2,999,709	$2,994,349	$2,988,988	$2,983,627	$2,978,266	$2,972,905	N/A
6. Average Net Investment		$2,984,292	$2,979,019	$2,973,745	$2,993,450	$3,013,111	$3,007,751	$3,002,390	$2,997,029	$2,991,668	$2,986,307	$2,980,947	$2,975,586	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$18,933	$18,900	$18,866	$18,991	$19,116	$19,082	$19,048	$19,014	$18,980	$18,946	$18,912	$18,878	$227,668
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$4,261	$4,253	$4,246	$4,274	$4,302	$4,294	$4,287	$4,279	$4,272	$4,264	$4,256	$4,249	$51,237
8. Investment Expenses														
a. Depreciation [d]		$5,273	$5,273	$5,273	$5,317	$5,361	$5,361	$5,361	$5,361	$5,361	$5,361	$5,361	$5,361	$64,023
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$28,468	$28,427	$28,386	$28,583	$28,779	$28,737	$28,696	$28,654	$28,612	$28,571	$28,529	$28,487	$342,928

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
23 - SPCC - Spill Prevention, Control & Countermeasures														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($3,128,625)	$6,666	$6,666	$406,666	$6,666	$6,666	$6,666	$15,698	$6,666	$6,666	$6,666	$6,674	($2,646,259)
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		($267,332)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($267,332)
2. Plant-In-Service/Depreciation Base [a]	$18,705,021	$15,576,395	$15,583,061	$15,589,727	$15,996,393	$16,003,059	$16,009,725	$16,016,391	$16,032,089	$16,038,755	$16,045,421	$16,052,087	$16,058,761	N/A
3. Less: Accumulated Depreciation	$3,605,332	$3,370,278	$3,402,567	$3,434,867	$3,467,761	$3,501,248	$3,534,746	$3,568,255	$3,601,782	$3,635,327	$3,668,882	$3,702,448	$3,736,024	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$15,099,689	$12,206,117	$12,180,494	$12,154,860	$12,528,633	$12,501,811	$12,474,979	$12,448,136	$12,430,308	$12,403,429	$12,376,539	$12,349,640	$12,322,737	N/A
6. Average Net Investment		$13,652,903	$12,193,306	$12,167,677	$12,341,746	$12,515,222	$12,488,395	$12,461,558	$12,439,222	$12,416,868	$12,389,984	$12,363,089	$12,336,188	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$86,618	$77,358	$77,196	$78,300	$79,401	$79,230	$79,060	$78,918	$78,777	$78,606	$78,435	$78,265	$950,165
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$19,494	$17,410	$17,373	$17,622	$17,869	$17,831	$17,793	$17,761	$17,729	$17,690	$17,652	$17,614	$213,836
8. Investment Expenses														
a. Depreciation [d]		$32,279	$32,289	$32,300	$32,894	$33,488	$33,498	$33,509	$33,527	$33,545	$33,555	$33,566	$33,576	$398,025
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$138,391	$127,057	$126,868	$128,815	$130,757	$130,559	$130,361	$130,206	$130,050	$129,852	$129,653	$129,455	$1,562,026

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
24 - Manatee Reburn														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	$31,170,571	N/A
3. Less: Accumulated Depreciation	$5,884,479	$5,952,015	$6,019,551	$6,087,087	$6,154,624	$6,222,160	$6,289,696	$6,357,232	$6,424,769	$6,492,305	$6,559,841	$6,627,377	$6,694,914	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$25,286,092	$25,218,556	$25,151,020	$25,083,483	$25,015,947	$24,948,411	$24,880,875	$24,813,338	$24,745,802	$24,678,266	$24,610,730	$24,543,194	$24,475,657	N/A
6. Average Net Investment		$25,252,324	$25,184,788	$25,117,251	$25,049,715	$24,982,179	$24,914,643	$24,847,107	$24,779,570	$24,712,034	$24,644,498	$24,576,962	$24,509,425	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$160,209	$159,780	$159,352	$158,923	$158,495	$158,067	$157,638	$157,210	$156,781	$156,353	$155,924	$155,496	$1,894,227
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$36,055	$35,959	$35,862	$35,766	$35,670	$35,573	$35,477	$35,380	$35,284	$35,187	$35,091	$34,995	$426,299
8. Investment Expenses														
a. Depreciation [d]		$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$67,536	$810,435
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$263,800	$263,275	$262,751	$262,226	$261,701	$261,176	$260,651	$260,126	$259,601	$259,076	$258,551	$258,026	$3,130,961

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FORM: 42-4P

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
25 - Pt. Everglades ESP Technology														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		($81,901,169)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($81,901,169)
c. Retirements		($81,901,169)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($81,901,169)
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$81,901,169	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
3. Less: Accumulated Depreciation	$17,895,361	($62,523,701)	($61,193,409)	($59,863,118)	($58,532,826)	($57,202,535)	($55,872,243)	($54,541,952)	($53,211,660)	($51,881,369)	($50,551,077)	($49,220,786)	($47,890,494)	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$64,005,809	$62,523,701	$61,193,409	$59,863,118	$58,532,826	$57,202,535	$55,872,243	$54,541,952	$53,211,660	$51,881,369	$50,551,077	$49,220,786	$47,890,494	N/A
6. Average Net Investment		$63,264,755	$61,858,555	$60,528,263	$59,197,972	$57,867,681	$56,537,389	$55,207,098	$53,876,806	$52,546,515	$51,216,223	$49,885,932	$48,555,640	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$401,372	$392,451	$384,011	$375,571	$367,131	$358,691	$350,252	$341,812	$333,372	$324,932	$316,492	$308,053	$4,254,140
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$90,329	$88,322	$86,422	$84,523	$82,623	$80,724	$78,825	$76,925	$75,026	$73,127	$71,227	$69,328	$957,401
8. Investment Expenses														
a. Depreciation [d]		$151,816	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$151,816
b. Amortization [e]		$1,330,291	$1,330,291	$1,330,292	$1,330,291	$1,330,292	$1,330,291	$1,330,292	$1,330,291	$1,330,292	$1,330,291	$1,330,292	$1,330,291	$15,963,498
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$1,973,809	$1,811,064	$1,800,725	$1,790,385	$1,780,046	$1,769,707	$1,759,368	$1,749,029	$1,738,689	$1,728,350	$1,718,011	$1,707,672	$21,326,855

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-36.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
26 - UST Remove/Replacement														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	$115,447	N/A
3. Less: Accumulated Depreciation	$23,263	$23,465	$23,667	$23,869	$24,071	$24,273	$24,475	$24,677	$24,879	$25,082	$25,284	$25,486	$25,688	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$92,183	$91,981	$91,779	$91,577	$91,375	$91,173	$90,971	$90,769	$90,567	$90,365	$90,163	$89,961	$89,759	N/A
6. Average Net Investment		$92,082	$91,880	$91,678	$91,476	$91,274	$91,072	$90,870	$90,668	$90,466	$90,264	$90,062	$89,860	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$584	$583	$582	$580	$579	$578	$577	$575	$574	$573	$571	$570	$6,926
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$131	$131	$131	$131	$130	$130	$130	$129	$129	$129	$129	$128	$1,559
8. Investment Expenses														
a. Depreciation [d]		$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$2,424
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$918	$916	$915	$913	$911	$910	$908	$907	$905	$904	$902	$900	$10,909

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

FORM: 42-4P

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
31 - Clean Air Interstate Rule (CAIR) Compliance														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$946,664	$874,045	$841,897	$884,237	$401,447	$253,331	$180,932	$204,617	$136,053	$222,001	$356,212	$5,301,436
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$516,988,862	$516,988,862	$517,935,526	$518,809,571	$519,651,468	$520,535,705	$520,937,152	$521,190,483	$521,371,415	$521,576,032	$521,712,085	$521,934,086	$522,290,298	N/A
3. Less: Accumulated Depreciation	$17,029,418	$18,151,051	$19,273,710	$20,398,341	$21,524,832	$22,653,192	$23,782,945	$24,913,407	$26,044,340	$27,175,691	$28,307,410	$29,439,518	$30,572,251	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$499,959,444	$498,837,811	$498,661,816	$498,411,230	$498,126,637	$497,882,514	$497,154,208	$496,277,076	$495,327,075	$494,400,342	$493,404,675	$492,494,569	$491,718,047	N/A
6. Average Net Investment		$499,398,628	$498,749,814	$498,536,523	$498,268,933	$498,004,575	$497,518,361	$496,715,642	$495,802,076	$494,863,709	$493,902,509	$492,949,622	$492,106,308	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$3,168,346	$3,164,230	$3,162,876	$3,161,179	$3,159,502	$3,156,417	$3,151,324	$3,145,528	$3,139,575	$3,133,477	$3,127,431	$3,122,081	$37,791,965
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$713,041	$712,115	$711,810	$711,428	$711,051	$710,357	$709,211	$707,906	$706,566	$705,194	$703,833	$702,629	$8,505,143
8. Investment Expenses														
a. Depreciation [d]		$1,121,633	$1,122,659	$1,124,631	$1,126,490	$1,128,360	$1,129,753	$1,130,462	$1,130,933	$1,131,351	$1,131,720	$1,132,107	$1,132,734	$13,542,834
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$5,003,021	$4,999,003	$4,999,318	$4,999,097	$4,998,913	$4,996,527	$4,990,997	$4,984,367	$4,977,492	$4,970,390	$4,963,372	$4,957,444	$59,839,942

(a) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

(b) The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

(c) The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

(d) Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

(e) Applicable amortization period(s). See Form 42-4P, pages 34-38.

(f) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

(g) For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
33 - MATS Project														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$149,728	$105,635	$84,526	$86,365	$78,524	$98,120	$67,450	$87,575	$68,950	$88,000	$72,142	$987,015
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$107,121,508	$107,121,508	$107,271,236	$107,376,871	$107,461,397	$107,547,762	$107,626,286	$107,724,406	$107,791,856	$107,879,431	$107,948,381	$108,036,381	$108,108,523	N/A
3. Less: Accumulated Depreciation	$7,431,018	$7,663,073	$7,895,291	$8,127,786	$8,360,486	$8,593,372	$8,826,436	$9,059,692	$9,293,127	$9,526,730	$9,760,502	$9,994,445	$10,228,561	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$99,690,491	$99,458,435	$99,375,945	$99,249,086	$99,100,911	$98,954,391	$98,799,850	$98,664,715	$98,498,730	$98,352,702	$98,187,879	$98,041,937	$97,879,963	N/A
6. Average Net Investment		$99,574,463	$99,417,190	$99,312,515	$99,174,998	$99,027,651	$98,877,120	$98,732,282	$98,581,722	$98,425,716	$98,270,291	$98,114,908	$97,960,950	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$631,732	$630,735	$630,071	$629,198	$628,263	$627,308	$626,389	$625,434	$624,444	$623,458	$622,473	$621,496	$7,521,003
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$142,172	$141,948	$141,798	$141,602	$141,392	$141,177	$140,970	$140,755	$140,532	$140,310	$140,088	$139,869	$1,692,614
8. Investment Expenses														
a. Depreciation [d]		$232,056	$232,218	$232,494	$232,700	$232,886	$233,064	$233,256	$233,435	$233,603	$233,772	$233,943	$234,116	$2,797,543
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$1,005,961	$1,004,900	$1,004,363	$1,003,501	$1,002,541	$1,001,549	$1,000,615	$999,624	$998,580	$997,541	$996,504	$995,480	$12,011,159

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
34 - St Lucie Cooling Water System Inspection & Maintenance														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,873,359	$3,873,359
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,873,359	N/A
3. Less: Accumulated Depreciation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,905	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,870,454	N/A
6. Average Net Investment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,935,227	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,278	$12,278
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,763	$2,763
8. Investment Expenses														
a. Depreciation [d]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,905	$2,905
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$17,946	$17,946

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
35 - Martin Plant Drinking Water System Compliance														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [(a)]	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	$235,391	N/A
3. Less: Accumulated Depreciation	$18,597	$19,009	$19,421	$19,833	$20,245	$20,657	$21,069	$21,481	$21,892	$22,304	$22,716	$23,128	$23,540	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$216,794	$216,383	$215,971	$215,559	$215,147	$214,735	$214,323	$213,911	$213,499	$213,087	$212,675	$212,263	$211,851	N/A
6. Average Net Investment		$216,588	$216,177	$215,765	$215,353	$214,941	$214,529	$214,117	$213,705	$213,293	$212,881	$212,469	$212,057	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [(b)(g)]		$1,374	$1,371	$1,369	$1,366	$1,364	$1,361	$1,358	$1,356	$1,353	$1,351	$1,348	$1,345	$16,317
b. Debt Component (Line 6 x debt rate x 1/12) [(c)(g)]		$309	$309	$308	$307	$307	$306	$306	$305	$305	$304	$303	$303	$3,672
8. Investment Expenses														
a. Depreciation [(d)]		$412	$412	$412	$412	$412	$412	$412	$412	$412	$412	$412	$412	$4,943
b. Amortization [(e)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [(f)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$2,095	$2,092	$2,089	$2,086	$2,082	$2,079	$2,076	$2,073	$2,070	$2,066	$2,063	$2,060	$24,932

[(a)] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[(b)] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[(c)] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[(d)] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[(e)] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[(f)] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[(g)] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
36 - Low-Level Radioactive Waste Storage														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,517,223	$10,517,223
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$6,454,033	$6,454,033	$6,454,033	$8,454,033	$6,454,033	$6,454,033	$6,454,033	$6,454,033	$6,454,033	$6,454,033	$6,454,033	$6,454,033	$16,971,256	N/A
3. Less: Accumulated Depreciation	$185,366	$195,048	$204,729	$214,410	$224,091	$233,772	$243,453	$253,134	$262,815	$272,496	$282,177	$291,858	$309,427	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$6,268,666	$6,258,985	$6,249,304	$6,239,623	$6,229,942	$6,220,261	$6,210,580	$6,200,899	$6,191,218	$6,181,537	$6,171,856	$6,162,175	$18,661,829	N/A
6. Average Net Investment		$6,263,826	$6,254,145	$6,244,464	$6,234,783	$6,225,102	$6,215,421	$6,205,740	$6,196,059	$6,186,378	$6,176,696	$6,167,015	$11,412,002	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$39,740	$39,678	$39,617	$39,555	$39,494	$39,433	$39,371	$39,310	$39,248	$39,187	$39,126	$72,401	$506,160
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$8,943	$8,930	$8,916	$8,902	$8,888	$8,874	$8,861	$8,847	$8,833	$8,819	$8,805	$16,294	$113,912
8. Investment Expenses														
a. Depreciation [d]		$9,681	$9,681	$9,681	$9,681	$9,681	$9,681	$9,681	$9,681	$9,681	$9,681	$9,681	$17,569	$124,061
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$58,364	$58,289	$58,214	$58,139	$58,063	$57,988	$57,913	$57,838	$57,762	$57,687	$57,612	$106,264	$744,133

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 8.18% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
37 - DeSoto Next Generation Solar Energy Center														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$10,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$152,036,539	$152,036,539	$152,036,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	$152,046,539	N/A
3. Less: Accumulated Depreciation	$16,053,165	$16,474,954	$16,896,743	$17,318,546	$17,740,363	$18,162,179	$18,583,995	$19,005,812	$19,427,828	$19,849,445	$20,271,261	$20,693,078	$21,114,894	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$135,983,373	$135,561,584	$135,139,795	$134,727,993	$134,306,176	$133,884,360	$133,462,543	$133,040,727	$132,618,910	$132,197,094	$131,775,277	$131,353,461	$130,931,644	N/A
6. Average Net Investment		$135,772,479	$135,350,690	$134,933,894	$134,517,084	$134,095,268	$133,873,451	$133,251,635	$132,829,818	$132,408,002	$131,986,185	$131,564,369	$131,142,552	N/A
a. Average ITC Balance		$39,244,329	$39,122,263	$39,000,197	$38,878,131	$38,756,065	$38,633,999	$38,511,933	$38,389,867	$38,267,801	$38,145,735	$38,023,669	$37,901,603	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$940,422	$937,501	$934,811	$931,720	$928,798	$925,878	$922,954	$920,032	$917,110	$914,188	$911,266	$908,344	$11,092,825
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$203,526	$202,893	$202,268	$201,643	$201,011	$200,378	$199,746	$199,114	$198,481	$197,849	$197,217	$196,584	$2,400,711
8. Investment Expenses														
a. Depreciation [d]		$415,730	$415,730	$415,744	$415,757	$415,758	$415,757	$415,758	$415,757	$415,758	$415,757	$415,758	$415,757	$4,989,021
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$6,059	$8,059	$6,059	$6,059	$6,059	$6,059	$6,059	$6,059	$6,059	$6,059	$6,059	$6,059	$72,708
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($160,395)	($1,924,740)
9. Total System Recoverable Expenses (Lines 7 & 8)		$1,405,342	$1,401,788	$1,398,287	$1,394,785	$1,391,231	$1,387,676	$1,384,122	$1,380,568	$1,377,013	$1,373,459	$1,369,905	$1,366,350	$16,630,525

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

FORM: 42-4P

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
38 - Space Coast Next Generation Solar Energy Center														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$3,728	$0	$0	$0	$0	$0	$0	$0	$3,728
c. Retirements		$0	$0	$0	$0	($7,272)	$0	$0	$0	$0	$0	$0	$0	($7,272)
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$70,633,200	$70,633,200	$70,633,200	$70,633,200	$70,633,200	$70,636,928	$70,636,928	$70,636,928	$70,636,928	$70,636,928	$70,636,928	$70,636,928	$70,636,928	N/A
3. Less: Accumulated Depreciation	$6,422,815	$6,620,574	$6,818,334	$7,016,094	$7,213,752	$7,404,129	$7,601,867	$7,799,605	$7,997,343	$8,195,081	$8,392,819	$8,590,557	$8,788,295	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$64,210,385	$64,012,625	$63,814,866	$63,617,106	$63,419,447	$63,232,800	$63,035,062	$62,837,323	$62,639,585	$62,441,847	$62,244,109	$62,046,371	$61,848,633	N/A
6. Average Net Investment		$64,111,505	$63,913,746	$63,715,986	$63,518,277	$63,326,124	$63,133,931	$62,936,192	$62,738,454	$62,540,716	$62,342,978	$62,145,240	$61,947,502	N/A
a. Average ITC Balance		$16,738,671	$16,687,482	$16,636,293	$16,585,104	$16,533,915	$16,482,726	$16,431,537	$16,380,348	$16,329,159	$16,277,970	$16,226,781	$16,175,592	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$440,456	$439,098	$437,740	$436,383	$435,061	$433,738	$432,381	$431,023	$429,665	$428,308	$426,950	$425,593	$5,196,395
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$95,663	$95,368	$95,073	$94,778	$94,491	$94,204	$93,909	$93,614	$93,319	$93,024	$92,729	$92,434	$1,128,606
8. Investment Expenses														
a. Depreciation [d]		$194,848	$194,848	$194,848	$194,747	$194,736	$194,826	$194,826	$194,826	$194,826	$194,826	$194,826	$194,826	$2,337,808
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$2,912	$34,944
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($67,263)	($807,156)
9. Total System Recoverable Expenses (Lines 7 & 8)		$666,615	$664,962	$663,310	$661,556	$659,937	$658,417	$656,765	$655,112	$653,460	$651,807	$650,154	$648,502	$7,890,598

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
39 - Martin Next Generation Solar Energy Center														
1. Investments														
a. Expenditures/Additions		$0	$0	$1,750,000	$1,975,500	$0	$0	$2,000,000	$2,225,500	$0	$0	$0	$0	$7,951,000
b. Clearings to Plant		$0	$0	$0	$3,500,000	$0	$0	$0	$4,451,000	$0	$0	$0	$0	$7,951,000
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$411,631,319	$411,631,319	$411,631,319	$411,631,319	$415,131,319	$415,131,319	$415,131,319	$415,131,319	$419,582,319	$419,582,319	$419,582,319	$419,582,319	$419,582,319	N/A
3. Less: Accumulated Depreciation	$28,011,021	$29,174,822	$30,338,622	$31,502,422	$32,671,035	$33,844,461	$35,017,886	$36,191,312	$37,370,857	$38,556,523	$39,742,189	$40,927,854	$42,113,520	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$1,750,000	$225,500	$225,500	$225,500	$2,225,500	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$383,620,297	$382,456,497	$381,292,697	$381,878,896	$382,685,783	$381,512,358	$380,338,932	$381,165,507	$382,211,461	$381,025,796	$379,840,130	$378,654,464	$377,468,799	N/A
6. Average Net Investment		$383,038,397	$381,874,597	$381,585,796	$382,282,340	$382,099,070	$380,925,645	$380,752,220	$381,688,484	$381,618,629	$380,432,963	$379,247,297	$378,061,631	N/A
a. Average ITC Balance		$115,100,233	$114,756,435	$114,412,637	$114,068,839	$113,725,041	$113,381,243	$113,037,445	$112,693,647	$112,349,849	$112,006,051	$111,662,253	$111,318,455	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$2,661,931	$2,653,855	$2,651,330	$2,655,057	$2,653,202	$2,645,065	$2,643,272	$2,648,520	$2,647,384	$2,639,170	$2,630,955	$2,622,740	$31,752,482
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$575,263	$573,517	$573,019	$573,929	$573,583	$571,823	$571,490	$572,743	$572,558	$570,780	$569,003	$567,225	$6,864,934
8. Investment Expenses														
a. Depreciation [d]		$1,134,953	$1,134,953	$1,134,953	$1,139,766	$1,144,578	$1,144,578	$1,144,578	$1,150,699	$1,156,819	$1,156,819	$1,156,819	$1,156,819	$13,756,335
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$28,847	$28,847	$28,847	$28,647	$28,847	$28,847	$28,847	$28,847	$28,847	$28,847	$28,847	$28,847	$346,164
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($451,751)	($5,421,012)
9. Total System Recoverable Expenses (Lines 7 & 8)		$3,949,243	$3,939,421	$3,936,399	$3,945,848	$3,948,459	$3,938,562	$3,936,437	$3,949,057	$3,953,857	$3,943,865	$3,933,873	$3,923,880	$47,298,902

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
41 - Manatee Temporary Heating System														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$67,689	$32,189	$20,189	$16,189	$16,189	$21,689	$20,689	$11,689	$11,689	$19,313	$21,956	$10,000	$269,474
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [(a)]	$11,871,104	$11,938,793	$11,970,983	$11,991,172	$12,007,362	$12,023,551	$12,045,240	$12,065,930	$12,077,619	$12,089,309	$12,108,622	$12,130,578	$12,140,578	N/A
3. Less: Accumulated Depreciation	$258,761	$273,554	$288,442	$303,381	$318,355	$333,360	$348,401	$363,483	$378,596	$393,731	$408,896	$424,100	$439,335	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$11,612,343	$11,665,240	$11,682,540	$11,687,791	$11,689,006	$11,690,191	$11,696,839	$11,702,447	$11,699,024	$11,695,578	$11,699,726	$11,706,477	$11,701,242	N/A
6. Average Net Investment		$11,638,792	$11,673,890	$11,685,166	$11,688,399	$11,689,599	$11,693,515	$11,699,643	$11,700,735	$11,697,301	$11,697,652	$11,703,102	$11,703,860	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [(b)(g)]		$73,840	$74,063	$74,134	$74,155	$74,163	$74,187	$74,226	$74,233	$74,211	$74,214	$74,248	$74,253	$889,929
b. Debt Component (Line 6 x debt rate x 1/12) [(c)(g)]		$16,618	$16,668	$16,684	$16,689	$16,690	$16,696	$16,705	$16,706	$16,701	$16,702	$16,710	$16,711	$200,280
8. Investment Expenses														
a. Depreciation [(d)]		$14,793	$14,889	$14,939	$14,974	$15,005	$15,041	$15,082	$15,113	$15,135	$15,165	$15,204	$15,235	$180,575
b. Amortization [(e)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [(f)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$105,251	$105,620	$105,757	$105,617	$105,858	$105,925	$106,013	$106,052	$106,048	$106,081	$106,162	$106,199	$1,270,783

[(a)] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[(b)] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[(c)] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[(d)] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[(e)] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[(f)] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[(g)] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
42 - Turkey Point Cooling Canal Monitoring Plan														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	$3,582,753	N/A
3. Less: Accumulated Depreciation	$132,082	$137,456	$142,830	$148,204	$153,578	$158,953	$164,327	$169,701	$175,075	$180,449	$185,823	$191,197	$196,571	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$3,450,671	$3,445,297	$3,439,923	$3,434,549	$3,429,174	$3,423,800	$3,418,426	$3,413,052	$3,407,678	$3,402,304	$3,396,930	$3,391,556	$3,386,181	N/A
6. Average Net Investment		$3,447,984	$3,442,610	$3,437,236	$3,431,862	$3,426,487	$3,421,113	$3,415,739	$3,410,365	$3,404,891	$3,399,617	$3,394,243	$3,388,868	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$21,875	$21,841	$21,807	$21,773	$21,739	$21,705	$21,671	$21,636	$21,602	$21,568	$21,534	$21,500	$260,251
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$4,923	$4,915	$4,908	$4,900	$4,892	$4,885	$4,877	$4,869	$4,862	$4,854	$4,846	$4,839	$58,570
8. Investment Expenses														
a. Depreciation [d]		$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$5,374	$64,490
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$32,172	$32,131	$32,089	$32,047	$32,005	$31,963	$31,922	$31,880	$31,838	$31,796	$31,755	$31,713	$383,311

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
44 - Martin Plant Barley Barber Swamp Iron Mitigation														
1. Investments														
a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [(a)]	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	$164,719	N/A
3. Less: Accumulated Depreciation	$5,278	$5,567	$5,855	$6,143	$6,432	$6,720	$7,008	$7,296	$7,585	$7,873	$8,161	$8,449	$8,738	N/A
4. CWIP - Non Interest Bearing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	N/A
5. Net Investment (Lines 2 - 3 + 4)	$159,440	$159,152	$158,864	$158,575	$158,287	$157,999	$157,711	$157,422	$157,134	$156,846	$156,557	$156,269	$155,981	N/A
6. Average Net Investment		$159,296	$159,008	$158,719	$158,431	$158,143	$157,855	$157,566	$157,278	$156,990	$156,702	$156,413	$156,125	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [(b)(g)]		$1,011	$1,009	$1,007	$1,005	$1,003	$1,001	$1,000	$998	$996	$994	$992	$991	$12,007
b. Debt Component (Line 6 x debt rate x 1/12) [(c)(g)]		$227	$227	$227	$226	$226	$225	$225	$225	$224	$224	$223	$223	$2,702
8. Investment Expenses														
a. Depreciation [(d)]		$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$3,459
b. Amortization [(e)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [(f)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$1,526	$1,524	$1,522	$1,520	$1,517	$1,515	$1,513	$1,511	$1,508	$1,506	$1,504	$1,502	$18,168

[(a)] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[(b)] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[(c)] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[(d)] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[(e)] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[(f)] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[(g)] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
45 - 800 MW Unit ESP														
1. Investments														
a. Expenditures/Additions		$5,550,578	$2,789,273	$2,093,272	$1,956,520	$2,105,057	$3,761,280	$7,696,477	$9,752,364	$10,226,443	$11,842,002	$3,065,724	$7,182,099	$68,021,089
b. Clearings to Plant		$0	$0	$0	$0	$0	$0	$0	$40,979,605	$1,610,673	$7,385,294	$0	$0	$49,975,572
c. Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2. Plant-In-Service/Depreciation Base [a]	$61,517,629	$61,517,629	$61,517,629	$61,517,629	$61,517,629	$61,517,629	$61,517,629	$61,517,629	$102,497,234	$104,107,907	$111,493,201	$111,493,201	$111,493,201	N/A
3. Less: Accumulated Depreciation	$670,393	$803,681	$936,970	$1,070,258	$1,203,546	$1,336,834	$1,470,122	$1,603,411	$1,781,093	$2,004,916	$2,238,483	$2,480,052	$2,721,621	N/A
4. CWIP - Non Interest Bearing	$25,707,665	$31,258,243	$34,047,516	$36,140,788	$38,097,306	$40,202,365	$43,963,645	$51,660,122	$20,432,881	$29,048,651	$33,505,359	$36,571,083	$43,753,182	N/A
5. Net Investment (Lines 2 - 3 + 4)	$86,554,901	$91,972,191	$94,628,175	$96,588,159	$98,411,391	$100,383,160	$104,011,152	$111,574,340	$121,149,022	$131,151,643	$142,760,077	$145,584,232	$152,524,762	N/A
6. Average Net Investment		$89,263,546	$93,300,183	$95,608,167	$97,499,775	$99,397,275	$102,197,156	$107,792,746	$116,361,681	$126,150,332	$136,955,860	$144,172,154	$149,054,497	N/A
7. Return on Average Net Investment														
a. Equity Component grossed up for taxes [b][g]		$566,317	$591,926	$606,569	$618,570	$630,608	$646,372	$683,872	$736,236	$800,338	$868,892	$914,675	$945,650	$8,614,025
b. Debt Component (Line 6 x debt rate x 1/12) [c][g]		$127,450	$133,214	$136,509	$139,210	$141,919	$145,917	$153,906	$166,141	$180,117	$195,546	$205,849	$212,820	$1,938,600
8. Investment Expenses														
a. Depreciation [d]		$133,288	$133,288	$133,288	$133,288	$133,288	$133,288	$133,288	$177,683	$223,822	$233,568	$241,569	$241,569	$2,051,227
b. Amortization [e]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
c. Dismantlement [f]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
d. Property Expenses		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
e. Other		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9. Total System Recoverable Expenses (Lines 7 & 8)		$827,055	$858,429	$876,367	$891,068	$905,816	$927,577	$971,067	$1,082,060	$1,204,278	$1,298,006	$1,362,092	$1,400,038	$12,603,853

[a] Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-4P, pages 34-38.

[b] The Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on May 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-12-0425-PAA-EU.

[c] The Debt Component is 1.7134% based on May 2012 ROR Surveillance Report and reflects a 10% ROE per FPSC Order No. PSC-12-0425-PAA-EU.

[d] Applicable depreciation rate or rates. See Form 42-4P, pages 34-38.

[e] Applicable amortization period(s). See Form 42-4P, pages 34-38.

[f] Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39)

[g] For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment: See footnotes (b) and (c).

Average Unamortized ITC Balance:

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 6.16% based on the May 2012 ROR Surveillance Report and reflects a 10% return on equity.

Debt Component: Return of 2.01%based on the May 2012 ROR Surveillance Report and reflects a 10% ROE. Per FPSC Order PSC 12-0425-PAA-EU.

Note: Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
RETURN ON CAPITAL INVESTMENTS, DEPRECIATION AND TAXES

FORM: 42-4P

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

	Beginning of Period Amount	January Estimated	February Estimated	March Estimated	April Estimated	May Estimated	June Estimated	July Estimated	August Estimated	September Estimated	October Estimated	November Estimated	December Estimated	Twelve Month Amount
1. Working Capital Dr(Cr)														
a. 158.100 Allowance Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
b. 158.200 Allowances Withheld	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
c. 182.300 Other Regulatory Assets-Losses	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
d. 254.900 Other Regulatory Liabilities-Gains	($1,200,474)	($1,154,426)	($1,108,378)	($1,062,329)	($1,016,281)	($972,777)	($926,595)	($880,413)	($834,231)	($788,049)	($741,866)	($695,684)	($649,502)	
2. Total Working Capital	($1,200,474)	($1,154,426)	($1,108,378)	($1,062,329)	($1,016,281)	($972,777)	($926,595)	($880,413)	($834,231)	($788,049)	($741,866)	($695,684)	($649,502)	
3. Average Net Working Capital Balance		($1,177,450)	($1,131,402)	($1,085,353)	($1,039,305)	($994,529)	($949,686)	($903,504)	($857,322)	($811,140)	($764,957)	($718,775)	($672,593)	
4. Return on Average Net Working Capital Balance														
a. Equity Component grossed up for taxes [(a)]		($7,470)	($7,178)	($6,886)	($6,594)	($6,310)	($6,025)	($5,732)	($5,439)	($5,146)	($4,853)	($4,560)	($4,267)	
b. Debt Component (Line 6 x 1.6698% x 1/12)		($1,681)	($1,615)	($1,550)	($1,484)	($1,420)	($1,356)	($1,290)	($1,224)	($1,158)	($1,092)	($1,026)	($960)	
5. Total Return Component [(d)]		($9,151)	($8,793)	($8,435)	($8,078)	($7,730)	($7,381)	($7,022)	($6,663)	($6,304)	($5,945)	($5,586)	($5,227)	($86,317)
6. Expense Dr(Cr)														
a. 411.800 Gains from Dispositions of Allowances		($46,048)	($46,048)	($46,048)	($46,048)	($46,718)	($46,182)	($46,182)	($46,182)	($46,182)	($46,182)	($46,182)	($46,182)	
b. 411.900 Losses from Dispositions of Allowances		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
c. 509.000 Allowance Expense		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
7. Net Expense (Lines 6a + 6b + 6c) [(e)]		($46,048)	($46,048)	($46,048)	($46,048)	($46,718)	($46,182)	($46,182)	($46,182)	($46,182)	($46,182)	($46,182)	($46,182)	($554,186)
8. Total System Recoverable Expenses (Lines 5 + 7)		($55,200)	($54,842)	($54,484)	($54,126)	($54,447)	($53,563)	($53,204)	($52,845)	($52,486)	($52,128)	($51,769)	($51,410)	
a. Recoverable Costs Allocated to Energy		($55,200)	($54,842)	($54,484)	($54,126)	($54,447)	($53,563)	($53,204)	($52,845)	($52,486)	($52,128)	($51,769)	($51,410)	
b. Recoverable Costs Allocated to Demand		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
9. Energy Jurisdictional Factor		98.03238%	98.03238%	98.03236%	98.03238%	98.03238%	98.03236%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	98.03238%	
10. Demand Jurisdictional Factor		97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	97.97032%	
11. Retail Energy-Related Recoverable Costs [(b)]		($54,113)	($53,763)	($53,412)	($53,061)	($53,376)	($52,509)	($52,157)	($51,806)	($51,454)	($51,102)	($50,750)	($50,398)	
12. Retail Demand-Related Recoverable Costs [(c)]		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
13. Total Jurisdictional Recoverable Costs (Lines 11 + 12)		($54,113)	($53,763)	($53,412)	($53,061)	($53,376)	($52,509)	($52,157)	($51,806)	($51,454)	($51,102)	($50,750)	($50,398)	($627,901)

[(a)] March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.6764% is based on 2012 ROR Surveillance Report and reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

[(b)] Line 8a times Line 9

[(c)] Line 8b times Line 10

[(d)] Line 5 is reported on Capital Schedule

[(e)] Line 7 is reported on O&M Schedule

In accordance with FPSC Order No. PSC-94-0393-FOF-EI, FPL has recorded the gains on sales of emissions allowances as a regulatory liability.

Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
ANNUAL CAPITAL DEPRECIATION SCHEDULE
ESTIMATED FOR THE PERIOD: JANUARY 2013 - DECEMBER 2013

FORM: 42-4P

Project	Function	Site/Unit	Account	Depreciation Rate / Amortization Period	Dec - 2012	Dec - 2013
2 - Low NOX Burner Technology	02 - Steam Generation Plant	PtEverglades U1	31200	0.00%	$2,689,233	$0
2 - Low NOX Burner Technology	02 - Steam Generation Plant	PtEverglades U2	31200	0.00%	$2,368,972	$0
2 - Low NOX Burner Technology	02 - Steam Generation Plant	TurkeyPt U1	31200	2.50%	$2,563,376	$2,563,376
2 - Low NOX Burner Technology	02 - Steam Generation Plant	TurkeyPt U2	31200	2.50%	$2,275,222	$2,275,222
2 - Low NOX Burner Technology					**$9,896,803**	**$4,838,598**
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Manatee Comm	31200	2.60%	$31,859	$65,859
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Manatee U1	31100	2.10%	$56,430	$56,430
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Manatee U1	31200	2.60%	$505,974	$505,974
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Manatee U2	31100	2.10%	$56,333	$56,333
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Manatee U2	31200	2.60%	$508,552	$508,552
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Martin Comm	31200	2.60%	$31,632	$52,632
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Martin U1	31100	2.10%	$36,811	$36,611
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Martin U1	31200	2.60%	$542,175	$542,175
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Martin U2	31100	2.10%	$36,845	$36,845
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Martin U2	31200	2.60%	$529,518	$529,518
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	PtEverglades Comm	31100	0.00%	$127,911	$0
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	PtEverglades Comm	31200	0.00%	$67,788	$0
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	PtEverglades U1	31200	0.00%	$458,061	$0
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	PtEverglades U2	31200	0.00%	$480,322	$0
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	PtEverglades U3	31200	0.00%	$507,658	$0
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	PtEverglades U4	31200	0.00%	$517,303	$0
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	Scherer U4	31200	2.60%	$515,653	$515,653
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	SJRPP - Comm	31100	2.10%	$43,193	$43,193
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	SJRPP U1	31200	2.60%	$780	$780
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	SJRPP U2	31200	2.60%	$780	$780
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	TurkeyPt Comm Fsil	31100	2.10%	$59,056	$59,056
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	TurkeyPt Comm Fsil	31200	2.50%	$37,955	$101,455
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	TurkeyPt U1	31200	2.50%	$545,584	$545,584
3b - Continuous Emission Monitoring Systems	02 - Steam Generation Plant	TurkeyPt U2	31200	2.50%	$504,689	$504,689
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtLauderdale Comm	34100	3.50%	$58,860	$56,860
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtLauderdale Comm	34500	3.40%	$34,502	$34,502
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtLauderdale U4	34300	4.30%	$462,254	$508,754
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtLauderdale U5	34300	4.20%	$473,360	$519,860
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtMyers GTs	34300	3.10%	$0	$18,000
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtMyers U2 CC	34300	4.20%	$171,024	$225,024
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	FtMyers U3 CC	34300	5.20%	$2,283	$51,283
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Martin U3	34300	4.20%	$444,950	$457,950
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Martin U4	34300	4.20%	$437,552	$450,552
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Martin U8	34300	4.30%	$13,693	$13,693
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	PtEverglades GTs	34300	3.40%	$0	$34,000
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Putnam Comm	34100	2.60%	$82,858	$82,858
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Putnam Comm	34300	4.20%	$3,139	$3,139
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Putnam U1	34300	4.00%	$346,616	$393,116
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Putnam U2	34300	3.30%	$380,355	$426,855
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Sanford U4	34300	4.80%	$147,961	$183,961
3b - Continuous Emission Monitoring Systems	05 - Other Generation Plant	Sanford U5	34300	4.20%	$106,139	$142,139
3b - Continuous Emission Monitoring Systems					**$9,368,408**	**$7,766,864**
4b - Clean Closure Equivalency	02 - Steam Generation Plant	PtEverglades Comm	31100	0.00%	$19,812	$0
4b - Clean Closure Equivalency	02 - Steam Generation Plant	TurkeyPt Comm Fsil	31100	2.10%	$21,799	$21,799
4b - Clean Closure Equivalency					**$41,612**	**$21,799**
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	$3,111,263	$3,111,263
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Manatee Comm	31200	2.60%	$174,543	$174,543
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Manatee U1	31200	2.60%	$104,645	$104,845
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Manatee U2	31200	2.60%	$127,429	$127,429
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Martin Comm	31100	2.10%	$1,110,450	$1,110,450
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Martin Comm	31200	2.60%	$94,329	$94,329
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	Martin U1	31100	2.10%	$176,339	$176,339
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	PtEverglades Comm	31100	0.00%	$1,132,078	$0
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	SJRPP - Comm	31100	2.10%	$42,091	$42,091
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	SJRPP - Comm	31200	2.60%	$2,292	$2,292
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	TurkeyPt Comm Fsil	31100	2.10%	$87,560	$87,560
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	02 - Steam Generation Plant	TurkeyPt U2	31100	2.10%	$42,159	$42,159

Project	Function	Site/Unit	Account	Depreciation Rate / Amortization Period	Dec - 2012	Dec - 2013
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	05 - Other Generation Plant	FtLauderdale Comm	34200	3.80%	$898,111	$898,111
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	05 - Other Generation Plant	FtLauderdale GTs	34200	2.60%	$584,290	$584,290
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	05 - Other Generation Plant	FtMyers GTs	34200	2.70%	$133,479	$133,479
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	05 - Other Generation Plant	PtEverglades GTs	34200	2.60%	$2,781,640	$2,781,640
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks	05 - Other Generation Plant	Putnam Comm	34200	2.90%	$749,026	$749,026
5b - Maintenance of Stationary Above Ground Fuel Storage Tanks					**$11,351,926**	**$10,219,848**
7 - Relocate Turbine Lube Oil Underground Piping to Above Ground	03 - Nuclear Generation Plant	StLucie U1	32300	2.40%	$31,030	$31,030
7 - Relocate Turbine Lube Oil Underground Piping to Above Ground					**$31,030**	**$31,030**
8b - Oil Spill Clean-up/Response Equipment	02 - Steam Generation Plant	Amortizable	31650	5-Year	$143,516	$181,516
8b - Oil Spill Clean-up/Response Equipment	02 - Steam Generation Plant	Amortizable	31670	7-Year	$314,015	$227,112
8b - Oil Spill Clean-up/Response Equipment	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	$46,882	$46,882
8b - Oil Spill Clean-up/Response Equipment	02 - Steam Generation Plant	Martin Comm	31600	2.40%	$23,107	$23,107
8b - Oil Spill Clean-up/Response Equipment	02 - Steam Generation Plant	PtEverglades Comm	31100	0.00%	$366,102	$0
8b - Oil Spill Clean-up/Response Equipment	05 - Other Generation Plant	Amortizable	34650	5-Year	$22,458	$13,184
8b - Oil Spill Clean-up/Response Equipment	05 - Other Generation Plant	Amortizable	34670	7-Year	$5,734	$0
8b - Oil Spill Clean-up/Response Equipment	05 - Other Generation Plant	FtLauderdale Comm	34100	3.50%	$358,330	$358,330
8b - Oil Spill Clean-up/Response Equipment	05 - Other Generation Plant	FtLauderdale U5	34600	3.40%	$0	$64,500
8b - Oil Spill Clean-up/Response Equipment	05 - Other Generation Plant	West County Energy Center Comm	34600	3.30%	$0	$21,000
8b - Oil Spill Clean-up/Response Equipment	08 - General Plant	Other	39000	2.10%	$4,413	$4,413
8b - Oil Spill Clean-up/Response Equipment					**$1,284,558**	**$940,044**
10 - Relocate Storm Water Runoff	03 - Nuclear Generation Plant	StLucie Comm	32100	1.80%	$117,794	$117,794
10 - Relocate Storm Water Runoff					**$117,794**	**$117,794**
12 - Scherer Discharge Pipeline	02 - Steam Generation Plant	Scherer Comm	31100	2.10%	$524,873	$524,873
12 - Scherer Discharge Pipeline	02 - Steam Generation Plant	Scherer Comm	31200	2.60%	$328,762	$328,762
12 - Scherer Discharge Pipeline	02 - Steam Generation Plant	Scherer Comm	31400	2.60%	$689	$689
12 - Scherer Discharge Pipeline					**$854,324**	**$854,324**
20 - Wastewater Discharge Elimination & Reuse	02 - Steam Generation Plant	Martin U1	31200	2.60%	$380,995	$380,995
20 - Wastewater Discharge Elimination & Reuse	02 - Steam Generation Plant	Martin U2	31200	2.60%	$416,672	$416,672
20 - Wastewater Discharge Elimination & Reuse	02 - Steam Generation Plant	PtEverglades Comm	31100	0.00%	$437,404	$0
20 - Wastewater Discharge Elimination & Reuse					**$1,235,070**	**$797,667**
21 - St. Lucie Turtle Nets	03 - Nuclear Generation Plant	StLucie Comm	32100	1.80%	$352,942	$3,827,666
21 - St. Lucie Turtle Nets					**$352,942**	**$3,827,666**
22 - Pipeline Integrity Management	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	$752,070	$802,070
22 - Pipeline Integrity Management	02 - Steam Generation Plant	Martin Comm	31100	2.10%	$2,261,238	$2,261,238
22 - Pipeline Integrity Management					**$3,013,308**	**$3,063,308**
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	$807,719	$807,719
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Manatee Comm	31200	2.60%	$33,272	$33,272
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Manatee Comm	31500	2.40%	$26,325	$26,325
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Manatee U1	31200	2.60%	$45,750	$45,750
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Manatee U2	31200	2.60%	$37,431	$37,431
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Martin Comm	31100	2.10%	$343,785	$343,785
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	Martin Comm	31500	2.40%	$34,755	$34,755
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	PtEverglades Comm	31100	0.00%	$2,967,754	$0
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	PtEverglades Comm	31200	0.00%	$159,754	$0
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	PtEverglades Comm	31500	0.00%	$7,783	$0
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	TurkeyPt Comm Fsil	31100	2.10%	$92,013	$92,013
23 - SPCC - Spill Prevention, Control & Countermeasures	02 - Steam Generation Plant	TurkeyPt Comm Fsil	31500	2.20%	$13,559	$13,559
23 - SPCC - Spill Prevention, Control & Countermeasures	03 - Nuclear Generation Plant	StLucie U1	32300	2.40%	$1,019,614	$1,019,614
23 - SPCC - Spill Prevention, Control & Countermeasures	03 - Nuclear Generation Plant	StLucie U1	32400	1.80%	$437,945	$437,945
23 - SPCC - Spill Prevention, Control & Countermeasures	03 - Nuclear Generation Plant	StLucie U2	32300	2.40%	$552,390	$552,390
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtLauderdale Comm	34100	3.50%	$189,219	$189,219
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtLauderdale Comm	34200	3.80%	$1,480,169	$1,480,169
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtLauderdale Comm	34300	6.00%	$28,250	$28,250
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtLauderdale GTs	34100	2.20%	$92,727	$92,727
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtLauderdale GTs	34200	2.60%	$513,250	$513,250
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtMyers GTs	34100	2.30%	$178,936	$178,936
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtMyers GTs	34200	2.70%	$629,983	$629,983

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
ANNUAL CAPITAL DEPRECIATION SCHEDULE
ESTIMATED FOR THE PERIOD: JANUARY 2013 - DECEMBER 2013

FORM: 42-4P

Project	Function	Site/Unit	Account	Depreciation Rate / Amortization Period	Dec - 2012	Dec - 2013
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtMyers GTs	34500	2.20%	$12,430	$12,430
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtMyers U2 CC	34300	4.20%	$49,727	$49,727
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	FtMyers U3 CC	34500	3.40%	$12,430	$12,430
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	Martin Comm	34100	3.50%	$61,216	$461,216
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	Martin U8	34200	3.80%	$84,868	$84,868
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	PtEverglades GTs	34100	2.20%	$454,081	$454,081
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	PtEverglades GTs	34200	2.60%	$1,835,190	$1,835,190
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	PtEverglades GTs	34500	2.10%	$7,783	$7,783
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	Putnam Comm	34100	2.60%	$148,511	$148,511
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	Putnam Comm	34200	2.90%	$1,730,935	$1,730,935
23 - SPCC - Spill Prevention, Control & Countermeasures	05 - Other Generation Plant	Putnam Comm	34500	2.50%	$60,747	$60,747
23 - SPCC - Spill Prevention, Control & Countermeasures	06 - Transmission Plant - Electric	Other	35200	1.90%	$1,058,508	$1,074,506
23 - SPCC - Spill Prevention, Control & Countermeasures	06 - Transmission Plant - Electric	Other	35300	2.60%	$177,982	$177,982
23 - SPCC - Spill Prevention, Control & Countermeasures	06 - Transmission Plant - Electric	Other	35800	1.80%	$65,655	$65,655
23 - SPCC - Spill Prevention, Control & Countermeasures	07 - Distribution Plant - Electric	Other	36100	1.90%	$3,026,351	$3,090,353
23 - SPCC - Spill Prevention, Control & Countermeasures	07 - Distribution Plant - Electric	Other	36670	2.00%	$79,531	$88,563
23 - SPCC - Spill Prevention, Control & Countermeasures	08 - General Plant	Other	39000	2.10%	$146,691	$146,691
23 - SPCC - Spill Prevention, Control & Countermeasures					$18,705,021	$16,058,761
24 - Manatee Reburn	02 - Steam Generation Plant	Manatee U1	31200	2.60%	$16,687,067	$16,687,067
24 - Manatee Reburn	02 - Steam Generation Plant	Manatee U2	31200	2.60%	$14,483,504	$14,483,504
24 - Manatee Reburn					$31,170,571	$31,170,571
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U1	31100	4-Year	$298,710	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U1	31200	4-Year	$10,404,603	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U1	31500	4-Year	$2,500,249	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U1	31600	4-Year	$307,032	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U2	31100	4-Year	$184,084	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U2	31200	4-Year	$11,979,735	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U2	31500	4-Year	$3,954,582	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U2	31600	4-Year	$324,087	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U3	31100	4-Year	$713,693	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U3	31200	4-Year	$18,160,534	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U3	31500	4-Year	$4,304,057	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U3	31600	4-Year	$528,541	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U4	31100	4-Year	$313,276	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U4	31200	4-Year	$20,646,501	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U4	31500	4-Year	$6,729,950	$0
25 - Pt. Everglades ESP Technology	02 - Steam Generation Plant	PtEverglades U4	31600	4-Year	$551,535	$0
25 - Pt. Everglades ESP Technology					$81,901,169	$0
26 - UST Remove/Replacement	08 - General Plant	Other	39000	2.10%	$115,447	$115,447
26 - UST Remove/Replacement					$115,447	$115,447
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	$102,052	$102,052
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Manatee U1	31200	2.60%	$20,059,060	$20,059,060
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Manatee U1	31400	2.60%	$7,240,728	$7,240,728
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Manatee U2	31200	2.60%	$20,461,498	$20,461,498
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Manatee U2	31400	2.60%	$7,912,962	$7,912,962
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Martin Comm	31200	2.60%	$518,275	$518,275
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Martin Comm	31400	2.60%	$287,258	$287,258
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Martin U1	31200	2.60%	$19,504,077	$19,504,077
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Martin U1	31400	2.60%	$7,794,707	$7,794,707
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Martin U2	31200	2.60%	$20,248,975	$20,248,975
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Martin U2	31400	2.60%	$7,477,120	$7,477,120
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	Scherer U4	31200	2.60%	$348,261,192	$353,562,628
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	SJRPP U1	31200	2.60%	$27,708,299	$27,708,299
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	SJRPP U1	31500	2.40%	$455,146	$455,146
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	SJRPP U1	31600	2.40%	$9,138	$9,138
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	SJRPP U2	31200	2.60%	$26,524,626	$26,524,626
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	SJRPP U2	31500	2.40%	$426,220	$426,220
31 - Clean Air Interstate Rule (CAIR) Compliance	02 - Steam Generation Plant	SJRPP U2	31600	2.40%	$9,591	$9,591
31 - Clean Air Interstate Rule (CAIR) Compliance	05 - Other Generation Plant	FtLauderdale GTs	34300	2.90%	$110,242	$110,242
31 - Clean Air Interstate Rule (CAIR) Compliance	05 - Other Generation Plant	FtMyers GTs	34300	3.10%	$57,855	$57,855
31 - Clean Air Interstate Rule (CAIR) Compliance	05 - Other Generation Plant	Martin Comm U3&4	34100	3.50%	$763,350	$763,350

Project	Function	Site/Unit	Account	Depreciation Rate / Amortization Period	Dec - 2012	Dec - 2013
31 - Clean Air Interstate Rule (CAIR) Compliance	05 - Other Generation Plant	Martin Comm U3&4	34300	4.30%	$244,343	$244,343
31 - Clean Air Interstate Rule (CAIR) Compliance	05 - Other Generation Plant	Martin Comm U3&4	34500	3.40%	$292,499	$292,499
31 - Clean Air Interstate Rule (CAIR) Compliance	05 - Other Generation Plant	PtEverglades GTs	34300	3.40%	$107,874	$107,874
31 - Clean Air Interstate Rule (CAIR) Compliance	07 - Distribution Plant - Electric	Other	36500	3.90%	$411,775	$411,775
31 - Clean Air Interstate Rule (CAIR) Compliance					**$518,988,882**	**$522,290,298**
33 - MATS Project	02 - Steam Generation Plant	Scherer U4	31100	2.10%	$81,956	$81,956
33 - MATS Project	02 - Steam Generation Plant	Scherer U4	31200	2.60%	$106,998,574	$107,985,589
33 - MATS Project	02 - Steam Generation Plant	Scherer U4	31500	2.40%	$40,978	$40,978
33 - MATS Project					**$107,121,508**	**$108,108,523**
34 - St Lucie Cooling Water System Inspection & Maintenance	03 - Nuclear Generation Plant	StLucie Comm	32100	1.80%	$0	$3,873,359
34 - St Lucie Cooling Water System Inspection & Maintenance					**$0**	**$3,873,359**
35 - Martin Plant Drinking Water System Compliance	02 - Steam Generation Plant	Martin Comm	31100	2.10%	$235,391	$235,391
35 - Martin Plant Drinking Water System Compliance					**$235,391**	**$235,391**
36 - Low-Level Radioactive Waste Storage	03 - Nuclear Generation Plant	StLucie Comm	32100	1.80%	$6,454,033	$8,137,033
36 - Low-Level Radioactive Waste Storage	03 - Nuclear Generation Plant	TurkeyPt Comm	32100	1.80%	$0	$8,834,223
36 - Low-Level Radioactive Waste Storage					**$6,454,033**	**$16,971,256**
37 - DeSoto Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34650	5-Year	$21,935	$21,935
37 - DeSoto Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34670	7-Year	$59,592	$59,592
37 - DeSoto Next Generation Solar Energy Center	05 - Other Generation Plant	DeSoto Solar	34000	0.00%	$255,507	$255,507
37 - DeSoto Next Generation Solar Energy Center	05 - Other Generation Plant	DeSoto Solar	34100	3.30%	$4,502,770	$4,502,770
37 - DeSoto Next Generation Solar Energy Center	05 - Other Generation Plant	DeSoto Solar	34300	3.30%	$115,303,900	$115,303,900
37 - DeSoto Next Generation Solar Energy Center	05 - Other Generation Plant	DeSoto Solar	34500	3.30%	$26,194,769	$26,204,769
37 - DeSoto Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35200	1.90%	$5,655	$5,655
37 - DeSoto Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35300	2.60%	$520,413	$520,413
37 - DeSoto Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35310	2.90%	$1,712,305	$1,712,305
37 - DeSoto Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35500	3.40%	$394,418	$394,418
37 - DeSoto Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35600	3.20%	$191,358	$191,358
37 - DeSoto Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36100	1.90%	$608,255	$608,255
37 - DeSoto Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36200	2.60%	$2,215,123	$2,215,123
37 - DeSoto Next Generation Solar Energy Center	08 - General Plant	Amortizable	39720	7-Year	$22,114	$22,114
37 - DeSoto Next Generation Solar Energy Center	08 - General Plant	Other	39220	9.40%	$28,426	$28,426
37 - DeSoto Next Generation Solar Energy Center					**$152,036,539**	**$152,046,539**
38 - Space Coast Next Generation Solar Energy Center	01 - Intangible Plant	Amortizable	30300	30-Year	$6,359,027	$6,359,027
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34630	3-Year	$7,272	$6,000
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34650	5-Year	$9,438	$9,438
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34670	7-Year	$51,560	$51,560
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Spacecoast Solar	34100	3.30%	$3,838,726	$3,838,726
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Spacecoast Solar	34300	3.30%	$51,606,083	$51,606,083
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Spacecoast Solar	34500	3.30%	$6,126,699	$6,126,699
38 - Space Coast Next Generation Solar Energy Center	05 - Other Generation Plant	Spacecoast Solar	34600	3.30%	$0	$5,000
38 - Space Coast Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35300	2.60%	$139,391	$139,391
38 - Space Coast Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36100	1.90%	$269,799	$269,799
38 - Space Coast Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36200	2.60%	$2,186,996	$2,186,996
38 - Space Coast Next Generation Solar Energy Center	08 - General Plant	Amortizable	39720	7-Year	$6,351	$6,351
38 - Space Coast Next Generation Solar Energy Center	08 - General Plant	Other	39220	9.40%	$31,858	$31,858
38 - Space Coast Next Generation Solar Energy Center					**$70,633,200**	**$70,636,928**
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34650	5-Year	$21,384	$21,384
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Amortizable	34670	7-Year	$4,910	$4,910
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Martin Solar	34000	0.00%	$216,844	$216,844
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Martin Solar	34100	3.30%	$19,859,164	$19,859,164
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Martin Solar	34300	3.30%	$385,420,310	$393,371,310
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Martin Solar	34500	3.30%	$4,059,061	$4,059,061
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Martin Solar	34600	3.30%	$1,299	$1,299
39 - Martin Next Generation Solar Energy Center	05 - Other Generation Plant	Martin U8	34300	4.30%	$423,126	$423,126
39 - Martin Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35500	3.40%	$603,692	$603,692
39 - Martin Next Generation Solar Energy Center	06 - Transmission Plant - Electric	Other	35600	3.20%	$364,159	$364,159
39 - Martin Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36400	4.10%	$9,282	$9,282
39 - Martin Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36680	1.50%	$94,476	$94,476

Project	Function	Site/Unit	Account	Depreciation Rate / Amortization Period	Dec - 2012	Dec - 2013
39 - Martin Next Generation Solar Energy Center	07 - Distribution Plant - Electric	Other	36760	2.60%	$2,728	$2,728
39 - Martin Next Generation Solar Energy Center	08 - General Plant	Amortizable	39420	7-Year	$18,993	$18,993
39 - Martin Next Generation Solar Energy Center	08 - General Plant	Amortizable	39720	7-Year	$3,204	$3,204
39 - Martin Next Generation Solar Energy Center	08 - General Plant	Other	39220	9.40%	$25,193	$25,193
39 - Martin Next Generation Solar Energy Center	08 - General Plant	Other	39240	11.10%	$405,859	$405,859
39 - Martin Next Generation Solar Energy Center	08 - General Plant	Other	39290	3.50%	$97,633	$97,633
39 - Martin Next Generation Solar Energy Center					**$411,631,319**	**$419,582,319**
41 - Manatee Temporary Heating System	02 - Steam Generation Plant	CapeCanaveral Comm	31400	0.70%	$4,042,459	$4,042,459
41 - Manatee Temporary Heating System	02 - Steam Generation Plant	PtEverglades Comm	31400	2.30%	$3,481,414	$3,750,888
41 - Manatee Temporary Heating System	02 - Steam Generation Plant	Riviera Comm	31400	0.60%	$2,605,268	$2,605,268
41 - Manatee Temporary Heating System	06 - Transmission Plant - Electric	Other	35300	2.60%	$276,404	$276,404
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36100	1.90%	$29,981	$29,981
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36200	2.60%	$488,124	$488,124
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36400	4.10%	$226,155	$226,155
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36500	3.90%	$307,184	$307,184
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36660	1.50%	$221,326	$221,326
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36760	2.60%	$168,995	$168,995
41 - Manatee Temporary Heating System	07 - Distribution Plant - Electric	Other	36910	3.90%	$607	$607
41 - Manatee Temporary Heating System	08 - General Plant	Amortizable	39720	7-Year	$23,187	$23,187
41 - Manatee Temporary Heating System					**$11,871,104**	**$12,140,578**
42 - Turkey Point Cooling Canal Monitoring Plan	03 - Nuclear Generation Plant	TurkeyPt Comm	32100	1.80%	$3,582,753	$3,582,753
42 - Turkey Point Cooling Canal Monitoring Plan					**$3,582,753**	**$3,582,753**
44 - Martin Plant Barley Barber Swamp Iron Mitigation	02 - Steam Generation Plant	Martin Comm	31100	2.10%	$164,719	$164,719
44 - Martin Plant Barley Barber Swamp Iron Mitigation					**$164,719**	**$164,719**
45 - 800 MW Unit ESP	02 - Steam Generation Plant	Manatee U1	31200	2.60%	$0	$49,975,572
45 - 800 MW Unit ESP	02 - Steam Generation Plant	Manatee U2	31200	2.60%	$61,517,629	$61,517,629
45 - 800 MW Unit ESP					**$61,517,629**	**$111,493,201**
				Total	**$1,511,677,040**	**$1,500,949,586**

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Air Operating Permit Fees - O & M**
Project No. 1

Project Description:
The Clean Air Act Amendments of 1990, Public Law 101-549, and Florida Statutes 403.0872, require each major source of air pollution to pay an annual license fee. The amount of the fee is based on each source's previous year's emissions. It is calculated by multiplying the applicable annual operation license fee factor by the tons of each air pollutant emitted by the unit during the previous year and regulated in each unit's air operating permit, up to a total of 4,000 tons per pollutant. The major regulated pollutants at the present time are sulfur dioxide (SO2), nitrogen oxides (NOx) and particulate matter. The fee covers units in FPL's service area, as well as Unit 4 of Plant Scherer located in Juliette, Georgia, within the Georgia Power Company service area. FPL's share of ownership of that unit is 76.36%. The fees for FPL's units are paid to the Florida Department of Environmental Protection (FDEP) generally in February of each year, whereas FPL pays its share of the fees for Scherer Unit 4 to Georgia Power Company on a monthly basis.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The monthly fees for 2011 emissions have been paid and continue to be paid in 2012. Year 2011 air operating permit fees for the Florida facilities were calculated in January 2012 utilizing 2011 operating information. They were paid to the FDEP in February, 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $783,832 or 60.8% lower than previously projected. Lower than projected natural gas prices resulted in significantly less oil-fired operation than estimated for the oil-burning units. Air Permit fees and payments to the State of Florida are based on actual unit operations and performance.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The monthly fees for 2011 emissions have been paid and continue to be paid in 2012. Year 2011 air operating permit fees for the Florida facilities were calculated in January 2012 utilizing 2011 operating information. They were paid to the FDEP in February, 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $289,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Continuous Emission Monitoring Systems (CEMS) - O & M
Project No. 3a

Project Description:
The Clean Air Act Amendments of 1990, Public Law 101-549, established requirements for the monitoring, record keeping, and reporting of SO2, NOx, CO, Carbon Dioxide (CO2/O2) emissions, as well as opacity data from affected air pollution sources. FPL has 57 units, which are affected and which have installed CEMS to comply with these requirements.

40 CFR Part 75 includes the general requirements for the installation, certification, operation and maintenance of CEMS and specific requirements for the monitoring of pollutants and opacity. These Systems continuously extract and analyze gaseous samples for each power plant stack and have automated data acquisition and reporting capability. Operation and maintenance of these systems in accordance with the provisions of 40 CFR Part 75 is an ongoing activity, which follow the Title IV CEMS Quality Assurance Program Manual.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Operation and maintenance of the CEMS continue to be performed according to requirements of the Title IV CEM Quality Assurance Program Manual, 40 CFR Parts 60 & 75 regulations and all applicable FAC, as well as local requirements. Relative Accuracy Tests and Linearity Tests continue to be performed as scheduled for quality assurance and as needed for diagnostic or recertification requirements. QA/QC maintenance continues to be performed on the analyzers to meet reliability and availability requirements. CEMS required parts continue to be purchased as needed for repairs and/or preventative maintenance. Equipment having met end of life has been replaced as recommended by OEMs. Calibration span gases continue to be purchased as needed to meet required daily and QA calibrations. Analysis of fuel oil for sulfur content, heat of combustion and carbon continues to be performed per the requirements of 40 CFR Part 75, Appendix D. CEMS 24/7 Software Support contract with Babcock & Wilcox / KVB-Enertec (CEMS NETDAHS) continues to be maintained to ensure proper functionality as well as the integrity of the CEMS data. Maintenance of the software also ensures compliance with current rules or regulations or changes made by the EPA, State and Local Agencies. Training on the Operation and Maintenance of the system, as well as rule/regulation changes continue as needed.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $148,242 or 19.6% lower than previously projected. The variance is primarily due to the following reasons:

- Fewer oil sample analyses were required than previously projected due to reduced oil combustions as a result of lower than projected gas prices.
- Lower than projected costs for Data Acquisition and Handling System (DAHS) 24/7 software support that resulted from vendor discounted unit support fees as the number of total units supported under the contract has increased.
- Lower than projected costs associated with CEMS routine maintenance at Ft. Lauderdale, Putnam, Sanford, Pt. Everglades, and Ft. Myers plants due to less run time as a result of lower than projected natural gas prices and fewer parts required to be replaced.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
This is an ongoing project. Each reporting period will include the cost of quality assurance activities, training, spare parts, calibration gas, and software support.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $816,398.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Maintenance of Stationary Above Ground Fuel Storage Tanks - O&M
Project No. 5a

Project Description:
Florida Administrative Code (F.A.C.) Chapter 62-761, previously 17-762, which became effective on March 12, 1991, provides standards for the maintenance of stationary above ground fuel storage tank systems. These standards impose various implementation schedules for inspections/repairs and upgrades to fuel storage tanks.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Work continued on miscellaneous maintenance of above ground fuel storage tanks and piping systems. All required API 653 external inspections will be completed for this year and all 2012 tank registration fees have been paid. As of 8/6/12, all corporate tanks, which were due for internal & external API inspections in this reporting period, were inspected with no significant mechanical deficiencies or findings to report. Total of two (2) internal and five (5) external API inspections were conducted in the reporting period. Tank PPE-904's internal liner was replaced and returned to service in March, 2012. Lastly, Putnam Plant Tank-G had a complete external coating completed in the second quarter of 2012. Our original plan had a touch-up coating job scheduled but the conditions of the tank required a complete recoating to be performed.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $466,470 or 21.3% lower than previously projected. The variance is primarily due to opportunities to eliminate storage tank work previously projected for 2012. At the time of the original projection filing, it was not yet clear whether the Port Everglades plant would be modernized. As a result of the approval of the modernization project at the Port Everglades plant, the Fuel Oil Terminal facility will be decommissioned in 2013, and therefore the replacement of asphalt storage tank aprons on tanks 801, 802, 807 and 808 at the terminal was not performed. Additionally, with the decommissioning planned for Sanford Unit 3 in 2013/2014, an Alternate Procedure was submitted to the Florida Department of Environmental Protection (FDEP) requesting to forego the API-653 internal tank inspection on Sanford Plant Units 3A, 3B and light oil tanks scheduled for August 2012 and proceed to decommissioning and clean closure in 2013/2014. Concurrence from the FDEP on our Alternate Procedure is forthcoming. Finally, there were lower than projected mechanical repairs resulting from the Martin Fuel Terminal T-1271B Storage Tank API internal inspection.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
This is an ongoing project and each reporting period will include ongoing maintenance of above ground fuel storage tanks in accordance with F.A.C. Chapter 62-761. During the fourth quarter of 2012, the API internal inspection of Tank TMT-1271A will be accelerated because the plants fuel specifications are changing in 2013 from 1.0% Sulfur to 0.7% Sulfur.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $3,588,041.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Oil Spill Cleanup/Response Equipment - O&M
Project No. 8a

Project Description:
The Oil Pollution Act of 1990 (OPA '90) mandates that all liable parties in the petroleum handling industry file plans by August 18, 1993. In these plans, a liable party must identify (among other items) its spill management team, organization, resources and training. Within this project, FPL developed the plans for ten power plants, five fuel oil terminals, three pipelines, and one corporate plan. Additionally, FPL purchased the mandated response resources and provided for mobilization to a worst case discharge at each site.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Plan updates continue to be performed and filed for all sites as required. Routine maintenance of all oil spill equipment has continued throughout the year as well as the performance of spill management drills, including deployment drills throughout the system. A corporate team deployment drill will also be conducted in November 2012 at our Manatee Fuel Oil Terminals. Additionally, several HAZWOPER Training sessions will be conducted for new employees of the site initial team that do not currently hold the required HAZWOPER training certification required of an initial responder or supervisor.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $190,461 or 89.6% higher than previously projected. The variance is primarily due to the development and deployment of Hazardous Worker Operations Training (HAZWOPER) 40hr, 24hr, 8hr and Incident Command Training required for FPL's Oil Spill Response teams to be in compliance with OPA 90 regulations. With updates to the facility response plans in the first quarter of 2012, a substantial gap was indentified in the number of HAZWOPER trained personnel on the Initial Spill Response teams and Corporate Oil Spill response team. The majority of these costs are associated with third party vendors that provide this specialized classroom training.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
This is an ongoing project. Each reporting period will include ongoing maintenance of all oil spill equipment in accordance with OPA 90. Additionally, following a formal assessment of the oil spill program, FPL retained a contractor to perform the mandated OSRO (oil spill removal organization) function. This contractor also performs required maintenance on the oil spill equipment at all of the power plants as well as performs required annual equipment deployment drill at these facilities.

FPL has retained a spill management company to assist in corporate-level responses, improve the Fleet's ability to mobilize spill equipment (specifically boats), and continue to certify all oil spill response members in the NIMS mandated Incident Command System (ICS).

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $291,863.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **RCRA Corrective Action - O & M**
Project No. 13

Project Description:
Under the Hazardous and Solid Waste Amendments of 1984 (amending the Resource Conservation and Recovery Act, or RCRA), the U.S. EPA has the authority to require hazardous waste treatment facilities to investigate whether there have been releases of hazardous waste or constituents from non-regulated units on the facility site. If contamination is found to be present at levels that represent a threat to human health or the environment, the facility operator can be required to undertake "corrective action" to remediate the contamination. In April 1994, the U.S. EPA advised FPL that it intended to initiate RCRA Facility Assessments (RFAs) at FPL's nine former hazardous waste treatment facility sites. The RFA is the first step in the RCRA Corrective Action process. At a minimum, FPL will be responding to the agency's requests for information concerning the operation of these power plants, their waste streams, their former hazardous waste treatment facilities, and their non-regulated Solid Waste Management Units (SWMUs). FPL may also conduct assessments of human health risks resulting from possible releases from the SWMU's in order to demonstrate that any residual contamination does not represent an undue threat to human health or the environment. Other response actions could include a voluntary clean-up or compliance with the agency's imposition of the full gamut of RCRA Corrective Action requirements, including RCRA Facility Investigation, Corrective Measures Study, and Corrective Measures Implementation.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The March 5, 1999 Consent Order for St Lucie Nuclear Plant is amended by the new agreement, with the objective to achieve a no further action either with or without controls. Seven contaminated areas at St Lucie Nuclear are included in the amended agreement and amended consent order that will require continued monitoring, reporting and ultimate site rehabilitation. FPL and the FDEP have the option to defer further assessment and/or remediation until the nuclear plant is decommissioned as directed under the authority of the Nuclear Regulatory Commission. In July, 2012, the site submitted a restrictive covenant document for the area known as the Former Fueling Facility to the FDEP, which was signed by the St Lucie Site Vice President. A final, FDEP approved document is anticipated to be returned by the end of September, 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $76,000 or 76% lower than previously projected. The variance is primarily due to delays in receiving the final approval of the deed restriction package from the FDEP. The work plan for completion has been deferred until approval is received.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The new agreement and consent order included requirements for FPL to manage site rehabilitation of several contaminated areas at the St. Lucie Nuclear Plant, and provided options for closure of these areas under the RCRA program. In support of the amended agreement and amended consent order and in response to FPL's report to FDEP's expected impact, FDEP issued a letter to FPL on April 15, 2011, requiring numerous actions. In order to meet the conditions of these agreements, FPL recommended that FDEP consider a status change for the contaminated areas from "active remediation" to "no further action with controls" as allowed by the RCRA Contaminated Sites Program. The final approved site rehabilitation completion order is expected to be received for the Former Fueling Facility by the end of 2012. A no further action with controls proposal was submitted to the FDEP in February, 2012 for the turbine lube oil and transformer sites.

Project Projection:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $50,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: NPDES Permit Fees – O&M
Project No. 14

Project Description:
In compliance with State of Florida Rule 62-4.052, FPL is required to pay annual regulatory program and surveillance fees for any permits it requires to discharge wastewater to surface waters under the National Pollution Discharge Elimination System. These fees effect the Florida legislature's intent that the Florida Department of Environmental Protection's (FDEP) costs for administering the NPDES program be borne by the regulated parties, as applicable. The fees for each permit type are as set forth in the rule, with an effective date of May 1, 1995, for their implementation.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The NPDES permit fees were paid to FDEP for power generation operating plants and nuclear plants.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $40,875 or 35.5% lower than previously projected. A reversing entry was recorded in February 2012 for 2011 costs associated with the NPDES permitting renewal process that were inadvertently charged to the environmental clause. Additionally, a correcting entry was recorded in April 2012 for a chlorination study performed at the St. Lucie plant as a result of a permit renewal condition that should have been charged to Project 47 – NPDES Industrial Waste Water Permits in 2011.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The NPDES annual regulatory program and surveillance fees were paid to FDEP for power generation operating plants and nuclear plants.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $115,200.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Disposal of Noncontainerized Liquid Waste - O&M**
Project 17a

Project Description:
FPL manages ash from heavy oil fired power plants using a wet ash system. Ash from the dust collector and economizer is sluiced to surface ash basins. The ash sludge is then pH adjusted to precipitate metals. In order to comply with Florida Administrative Code 62-701.300 (10), the ash is then de-watered using a plate/frame filter-press in order to dispose of it in a Class I landfill or ship by railcar to a processing facility for beneficial reuse.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Repair to the ash press included a railing repair that was completed in August 2012. Work at Turkey Point is scheduled for completion in September 2012 with work at Manatee to follow.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $59,748 or 27.0% lower than previously projected. The variance is primarily due to work at Port Everglades Plant that was originally budgeted in the ECRC that will now be charged to the Port Everglades Modernization Project. The work at Port Everglades Plant included site remediation and removal of the ash basins.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
This is an ongoing project. The frequency of basin clean out is a function of basin capacity and rate of sludge/ash generation.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $161,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Substation Pollutant Discharge Prevention & Removal - O&M
Project No. 19a, 19b, 19c

Project Description:
Florida Statute Chapter 376 Pollutant Discharge Prevention and Removal requires that any person discharging a pollutant, defined as any commodity made from oil or gas, shall immediately undertake to contain, remove and abate the discharge to the satisfaction of the department. Florida Statute Chapter 403 states it is prohibited to cause pollution so as to harm or injure human health or welfare, animal, plant, or aquatic life or property. This project includes the prevention and removal of pollutant discharges at FPL substations and will prevent further environmental degradation.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The equipment leak repair and regasketing work continues. The arsenic in soils and/or groundwater continues to be addressed at six (6) substations located in Miami-Dade County. All arsenic-impacted soils at these substations are anticipated to be completely managed by the end of this year. A groundwater treatment system to clean-up the arsenic-impacted groundwater has been operating successfully at the University and Lawrence Substations. A groundwater treatment system is currently being designed for the Coconut Grove and Princeton Substations. A restrictive covenant is progressing for the Overtown Substation. The covenant and closure of this substation is expected to be achieved by the end of this year.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)

- 19a. Project expenditures are estimated to be $1,269,224 or 45.0% lower than previously projected. The variance is primarily due to manufacturing delays in the delivery of certain transformer components (e.g., radiators and bushings) from vendors, which has caused a reduction in the work schedule. These components are needed prior to performing transformer regasketing work. The components are expected to be delivered early next year.
- 19b. Project expenditures are estimated to be $23,091 or 2.3% lower than previously projected.
- 19c. No variance expected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
FPL's leak repair and regasketing work activities of oil-filled equipment is progressing. Many transformers require the replacement of components (e.g., radiators, bushings) prior to completing the regasketing work. The deliveries of some components were delayed due to backorders which resulted in a reduction in our work schedule. However, some components have been received, and the regasketing repair work is anticipated to increase toward the end of the year. Equipment encapsulation work is planned for two breakers in 2012. However, there are tentative plans that these two breakers will be entirely replaced in the near future. Once confirmed, we plan to eliminate this program. Environmental remediation work continues at six substations located in Miami-Dade County due to various degrees of arsenic contamination. Major remediation work to clean-up the arsenic-impacted groundwater at the University and Lawrence Substations has been successfully pursuing. A groundwater treatment system is being designed for the Coconut Grove and Princeton Substations. All the remediation work is being conducted under the direction of the Miami-Dade County Regulatory and Economic Resources Department.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are:

- 19a $1,916,262
- 19b $1,221,815
- 19c ($560,232)

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Wastewater/Stormwater Discharge Elimination & Reuse - O&M
Project No. 20

Project Description:
Pursuant to 33 U.S.C. Section 1342 and 40 CFR 122, FPL is required to obtain NPDES permits for each power plant facility. The last permits issued contain requirements to develop and implement a Best Management Practice Pollution Prevention Plan (BMP3 Plan) to minimize or eliminate, whenever feasible, the discharge of regulated pollutants, including fuel oil and ash, to surface waters. In addition, the 1997 Federal Ambient Water Quality Criteria requires FPL to meet surface water standards for any wastewater discharges to groundwater at all plants, and the Dade County DERM requires the Turkey Point and Cutler plants' wastewater discharges into canals to meet county water quality standards found in Section 24-11, Code of Metropolitan Dade County.

In order to address these requirements, FPL has undertaken a multifaceted project which includes activities such as ash basin lining, installation of retention tanks, tank coating, sump construction, installation of pumps, motor, and piping, boiler blowdown recovery, site preparation, separation of stormwater and ashwater systems, separation of potable and service water systems, and the associated engineering and design work to implement these projects.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The project is on hold due to the Pt. Everglades ESP Project.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The project is on hold due to the Pt. Everglades ESP Project.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: St. Lucie Turtle Net – O&M
Project No. 21

Project Description:
FPL is limited in the number of lethal turtle takings permitted at its St. Lucie Power Plant by the Incidental Take Statement contained in the Endangered Species Act Section 7 Consultation Biological Opinion, issued to FPL on May 4, 2001 by the National Marine Fisheries Service ("NMFS"). The number of lethal takings permitted in a given year is calculated by taking one percent of the total number of loggerhead and green turtles captured in that year. The Incidental Take Statement separately limits the number of lethal takings of Kemp's Ridley turtles to two per year over the next ten years, and the number of lethal takings of either hawksbill or leatherback turtles to one of those species every two years over the next ten years. An effective 5-inch primary barrier net is vital to limiting the number of lethal turtle takes per year. In 2002, the existing net became deformed due to the influxes of jellyfish and algae entering the canal. With the Commission approval, a replacement and enhancement of the net system was performed. In 2007, the antifoulant and protective coating on the existing 5-inch net deteriorated and was experiencing UV damage. With Commission approval, FPL purchased and installed a new 5-inch net in 2009.

In October 2009, the 5-inch primary barrier net failed due to influxes of algae that entered the canal and created a blockage of approximately 80% of the net. The net is currently in a temporary configuration, which has created an effective temporary barrier for turtles. The Turtle Net project now requires the engineering, construction and installation of a more robust barrier structure that can withstand significant algal events and similar environmental challenges. The proposed design would include the removal of the damaged piles and installation of new piles and a support structure to effectively secure the net.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Engineers have proposed and are currently designing a more effective barrier structure that will include a method for tensioning the turtle net and the design of a portable lift station. Engineering is also working on a design to improve the debris handling capability of the structure in order to provide improved access for maintenance of the net.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Engineering vendor was selected and drawings are to be received by fourth quarter of 2012. Site certification approval process is expected to commence during the fourth quarter of 2012. The current net will remain in a temporary configuration until the new structure is constructed. Engineering of the structure will continue through 2012. Construction activities on the net is planned to begin first quarter 2013.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Pipeline Integrity Management (PIM) – O&M
Project No. 22

Project Description:
FPL is required to develop a written pipeline integrity management program for its hazardous liquid / gas pipelines. This program must include the following elements: (1) a process for identifying which pipeline segments could affect a high consequence area; (2) a baseline assessment plan; (3) an information analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure; (4) the criteria for determining remedial actions to address integrity issues raised by the assessments and information analysis; (5) a continual process of assessment and evaluation of pipeline integrity; (6) the identification of preventive and mitigative measures to protect the high consequence area; (7) the methods to measure the program's effectiveness; (8) a process for review of assessment results and information analysis by a person qualified to evaluate the results and information; and, (9) record keeping.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The ongoing integrity assessments were undertaken for the corporate liquid/gas pipelines along with associated evaluations and appropriate countermeasures. Smart Pigging of the TMR-30 pipeline was conducted during 4Q2011 with confirmatory and remedial repairs on that pipeline being performed in 2012. The low earthen cover on the TMT 16 inch pipeline was risk ranked and remedial action has been completed on one (1) known areas of no topsoil coverage in March, 2012. We intend to address another area of low earthen cover during 4Q12 - when soil conditions dry and allow for proper excavation and earthworks. Further actions are required in 2013 and 2014 to address the remaining higher risk locations. Annual Public Awareness Campaign was improved and will be conducted in August, 2012. Lastly, upgrades to pipeline block valve control system field devices and telemetry devices (modems) is scheduled for 4Q12.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $46,708 or 9.8% lower than previously projected. The variance is primarily due to lower than estimated costs for work completed to remediate an area of low pipeline ground cover along the pipeline at Manatee Terminal found during a routine inspection.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Inline inspection projects on FPL's TMR-18 and TMT-16 pipelines will continue on a 5-year interval based on observed condition and DOT regulations. Inline inspection of our TMR-30 pipeline will continue on a 3-year interval based on our integrity management program. Repairs program to address TMR-30 pipeline's external corrosion at field joints will continue into 2014. Pipeline Awareness Program (PAP) public outreach will continue annually.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $293,500.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **SPCC (Spill Prevention, Control, and Countermeasures) - O&M**
Project No. 23

Project Description:
The EPA first established the SPCC Program in 1973 when the agency issued the Oil Pollution Prevention Regulation (i.e., SPCC rule) to address the oil spill prevention provisions contained in the Federal Water Pollution Control Act of 1972 (later amended as the Clean Water Act). The purpose of the regulation was to prevent discharges of oil from reaching the navigable waters of the U.S. or adjoining shorelines and to prepare facility personnel to respond to oil spills. The SPCC regulation requires certain facilities to prepare and implement SPCC Plans and address oil spill prevention requirements including the establishment of procedures, methods, equipment, and other requirements to prevent discharges of oil as described above. Specifically, the rule applies to any owner or operator of a non-transportation related facility that:

- Has a combined aboveground oil storage capacity of more than 1,320 gallons, or a total underground oil storage capacity exceeding 42,000 gallons (Note: the underground storage capacity does not apply to those tanks subject to all of the technical requirements of the federal underground storage tank rule found in 40 CFR 280 or a State approved program); and
- Due to its location, could be reasonably expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines.

In January 1988, a large storage tank owned by Ashland Oil Company at a site in western Pennsylvania collapsed, releasing approximately 750,000 gallons of diesel fuel to the Monongahela River. Following calls for new tank legislation, an EPA task force recommended expanded regulation of aboveground tanks within the framework of existing legislative authority. The result was EPA's SPCC rulemaking package, the first phase of which was proposed in 1991. Due to a series of agency delays primarily resulting from the 1989 Exxon Valdez oil spill that required EPA to issue the Facility Response Plan rule under the Oil Pollution Act of 1990, the final SPCC Rule was not published until July of 2002. A deficiency was found at the St, Lucie Unit 2 Diesel Oil Storage Tank and refueling tank areas. In order to meet compliance regulations, these areas are required to have secondary containment systems installed. For compliance, it is necessary to install oil berms, designed to catch any spilled oil upon delivery, in these areas.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
FPL is continually updating the SPCC plans for 625 substations. The updates are required to maintain compliance when oil-filled equipment is relocated, removed, upgraded, or added to the substation. Oil diversionary structures are being repaired and new structures are being installed at certain substations. We are currently using alternative oil diversionary products such as interlocking plastic sheeting and polymer-filled booms to provide a more effective and long lasting means to contain oil releases. Inspections of all substations, which are required by SPCC regulations, are being performed on a quarterly basis with the information being captured in a complex database.

FPL began demolishing an aboveground oil water separator at the Sanford Plant, July 30, 2012. Construction will include a new oil waster separator and two associated pumps. Project projected completion date is September 1, 2012. FPL is continually updating the Facility Response Plans for all electrical power plants and terminals. These updates incorporate changes to equipment and containment throughout the year.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $180,585 or 18.9% higher than previously projected. The variance is primarily due to costs that were reclassified from Capital to O&M. The replacement of Sanford Plant's Oily Water Separator was identified as not being a full replacement of the system and therefore, did not meet the capitalization policy. In addition, Martin Units 3 and 4 had unplanned repairs to the secondary containment around the diesel storage tank. The unplanned repairs included concrete cracks and expansion joint repairs. This variance was partially offset by a decrease in the substation oil diversionary structure (i.e., perimeter curbing) repair, which was deferred in order to negotiate new contracts with vendors.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The updating of the 625 substation SPCC plans is ongoing. FPL continues to work on planning and conceptual engineering for additional facility upgrades. Additionally, due to the large number of quarterly substation inspection reports that are being generated, FPL is continuously using a complex database to manage all SPCC-required information. This database has proven to be an efficient and effective method of gathering information to identify compliance issues that need to be addressed. FPL continues to explore new automated methods to be proactive in maintaining SPCC compliance. FPL is continually updating the Facility Response Plans for all electrical power plants

and terminals. These updates incorporate changes to equipment and containment throughout the year to maintain SPCC regulation compliance.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $931,256.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Manatee Reburn – O&M
Project No. 24

Project Description:
This project involves installation of reburn technology in Manatee Units 1 and 2. Reburn is an advanced nitrogen oxides (NOx) control technology that has been developed for, and applied successfully in, commercial applications to utility and large industrial boilers. The process is a proven advanced technology, with applications of a reburn-like flue gas incineration technique dating back to the late 1960s, and developments for applications to large coal fired power plants in the United States dating back to the early to mid 1980s.

Reburn is an in-furnace NOx control technology that employs fuel staging in a configuration where a portion of the fuel is injected downstream of the main combustion zone to create a second combustion zone, called the reburning zone. The reburning zone is operated under conditions where NOx from the main combustion zone is converted to elemental nitrogen (which makes up 79% of the atmosphere). The basic front wall-fired boiler reburning process divides the furnace into three zones.

In the 1996-97 time period, FPL invested considerable effort evaluating the Manatee Units for the application of reburn technology. FPL has recently reviewed the reburn system designs previously proposed for the Manatee units, and concluded that a design for either oil or gas reburn would require very similar characteristics. This will require reburn fuel injectors to be located at the elevation of the present top row of burners, with reburn injectors on the boiler front and rear walls. For the present application the injectors will be required to have a dual fuel (oil and gas) capability. In order to provide adequate residence time for the reburn process, it is proposed to locate the reburn overfire air (OFA) ports between the boiler wing walls and to angle them slightly to provide better mixing with the boiler flow. Because of the complexity of the boiler flow field and the port location, it was determined that OFA booster fans would be required to assist the air-fuel mixing and complete the burnout process. Installation of reburn technology for Manatee Units 1 and 2 offers the potential to reduce NOx emissions through a "pollution prevention" approach that does not require the use of reagents, catalysts, and pollution reduction or removal equipment. FDEP and FPL agree that reburn technology is the most cost-effective alternative to achieve significant reductions in NOx emissions from Manatee Units 1 and 2.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The units continue to operate reliably and minor tuning of the process continues. The systems have achieved significant NOx emission reductions. The PMT Reburn O&M ECRC dollars cover all on-going burner and equipment maintenance costs associated with the project. Unit 2 Combustion Air Dampers were repaired as a result of damages found during an inspection in the spring of 2012. Funding was requested and approved to inspect and repair Unit 1 Combustion Air Dampers during the ESP outage starting Fall 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $258,659 or 28.7% higher than previously projected. The variance is primarily due to a shift in work at Manatee Plant from 2011 to 2012 due to changes in the outage schedules that occurred after the approval of the 800 MW ESP project. This work includes the replacement of the Unit 1 and 2 Burner Scanners and Igniters, Unit 1 and 2 Burner Guide Tube Assemblies and Unit 1 Burner Swirlers.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Unit 1 & Unit 2 are operating as referenced above. Project expenditures are based on runtime and available maintenance time.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $500,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Pt. Everglades ESP Technology – O&M
Project No. 25

Project Description:
The requirements of the Clean Air Act direct the Environmental Protection Agency to develop health-based standards for certain "criteria pollutants". i.e. ozone (O3), sulfur dioxide (SO2), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NOx), an lead (Pb). EPA developed standards for the criteria pollutants and regulates the emissions of those pollutants from major sources by way of the Title V permit program. Florida has been granted authority from the EPA to administer its own Title V program which is at least as stringent as the EPA requirements. Florida is able to issue, renew and enforce Title V air operating permits for sources within the state via 403.061 Florida Statutes and Chapter 62-213 F.A.C., which is administered by the State of Florida Department of Environmental Protection ("DEP"). The Title V program addresses the six criteria pollutants mentioned earlier, and includes hazardous air pollutants (HAP). The EPA sets the limits of emissions of Hazardous Air Pollutants through the Maximum Achievable Control Technology (MACT). The DEP's Title V permit for FPL Port Everglades plant requires FPL to install and maintain Electrostatic Precipitators at all four Port Everglades units to address local concerns and to insure compliance with the National Ambient Air Quality Stands and the EPA MACT Standards.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The ESP engineering design for Units 1–4 was completed in 2004. All four units' ESPs were completed between 2005 and 2007 and are operational (O&M activities started in April 2005 for this project).

The installation of the new Kirk Key Interlock System for all units (1&2, and 3&4) was completed in 2011.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $308,749 or 48.2% lower than previously projected. The variance is primarily due to lower than anticipated unit operation on fuel oil as a result of lower than projected natural gas prices. In addition, projected costs associated with the ESP overhaul at the Port Everglades plant will not be incurred. As a result of the modernization of the facility in 2013, the overhaul will no longer be performed.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Construction on all four ESPs was completed and all four units ESPs are operational.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $24,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: UST Replacement/Removal – O&M
Project No. 26

Project Description:
The Florida Administrative Code (FAC) Chapter 62-761.500, dated July 13, 1998, requires the removal or replacement of existing Category-A and Category-B storage tank systems with systems meeting the standards of Category-C storage tank systems by December 31, 2009. UST Category-A tanks are single-walled tanks or underground single-walled piping with no secondary containment that was installed before June 30, 1992.
UST Category-B tanks are tanks containing pollutants after June 30, 1992 or a hazardous substance after January 1, 1994 that shall have a secondary containment. Small diameter piping that comes in contact with the soil that is connected to a UST shall have secondary containment if installed after December 10, 1990.
UST and AST Category-C tanks under F.A.C. 62-761.500 are tanks that shall have some or all of the following; a double wall, be made of fiberglass, have exterior coatings that protect the tank from external corrosion, secondary containment (e.g., concrete walls and floor) for the tank and the piping, and overfill protection.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
There were no activities in 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are for 2012 are $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Initial review of the scope of work has been completed.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Lowest Quality Water Source (LQWS) – O&M
Project No. 27

Project Description:
Section 366.8255 of the Florida Statutes provides for the recovery through the ECRC of "environmental compliance costs" which are costs incurred in complying with "environmental rules or regulations." The LQWS Project is required in order to comply with permit conditions in the Consumptive Use Permits (CUPs) issued by the St. Johns River Water Management District (SJRWMD or the District)) for the Sanford Plant. Those permit conditions are intended to preserve Florida's groundwater, which is an important environmental resource. The permit conditions therefore "apply to electric utilities and are designed to protect the environment" as contemplated by section 366.8255. The SJRWMD adopted a policy in 2000 that, upon permit renewal, a user of the District's water is required to use the lowest quality of water that is technically, environmentally and economically feasible for its needs. This policy was implemented for the Sanford Plant in the current CUPs. For the Sanford facility, Condition 15 of CUP No. 9202, issued in June 2000, requires the lowest quality of water to be used that is feasible to meet the needs of the facility. The LQWS project at Sanford Plant is currently operational.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The project at the Sanford Plant is currently operational.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $6,768 or 2.1% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The project at the Sanford Plant is currently operational.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $329,309.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: CWA 316(b) Phase II Rule – O&M
Project No: 28

Project Description:
The Phase II Rule implements section 316 (b) of the Clean Water Act (CWA) for certain existing power plants that employ a cooling water intake structure and that withdraw 50 million gallons per day (MGD) or more of water from rivers, streams, lakes, reservoirs, estuaries, oceans or other Waters of the United States (WUS) for cooling purposes. The Phase II Rule establishes national requirements applicable to, and that reflect the best technology available (BTA) for the location, design, construction and capacity of existing cooling water intake structures (CWIS) to minimize adverse environmental impacts. The Phase II Rule has implications at the following FPL facilities: Cape Canaveral, Cutler, Fort Myers, Lauderdale, Port Everglades, Riviera, Sanford, Martin, Manatee and St. Lucie Power Plants.

A new proposed 316(b) Rule entitled Cooling Water Intake Structures at Existing and Phase I facilities (Existing Facilities Rule) was published in the Federal Register on April 20, 2011. A Consent Decree with Riverkeeper required EPA to sign the final Existing Facilities Rule by July 27, 2012; however, in July 2012 EPA announced that the deadline had been extended for one year. The Existing Facilities Rule, as proposed, will regulate cooling water intake structures from power plants and industries that withdraw threshold limits of cooling water from waters of the U.S. The rule requirements are designed to reduce adverse environmental impacts that result from the impingement and entrainment of aquatic organisms by requiring facilities to install Best Technology Available to reduce the impacts to cooling water intakes.

The Existing Facilities Rule replaces the previous 316(b) Phase II Rule for Existing Facilities (Phase II Rule), that was issued in 2004 and challenged by environmental groups and six northeastern states. The Phase II Rule was subsequently remanded to the EPA by the Second Circuit Court of Appeals after aspects concerning cost to benefit analysis were ruled upon by the U.S. Supreme Court.

FPL's current CWA 316(b) Phase II Project was approved by the Commission in Order No. PSC-04-0987-PAA-EI, issued October 11, 2004. The project included the recovery of costs associated with work required to respond to EPA requirements that facilities covered by the Phase II Rule complete and submit Comprehensive Demonstration Studies to determine the effect of cooling water intake structures on aquatic life. Additionally, in 2008, Order No. PSC-08-0775-FOF-EI approved the recovery of legal and consulting activities associated with protecting the interests of FPL and its customers in the Phase II Rule development. The cost for these activities was projected to be $525,000. To date, however, FPL has not had to spend any of this projected amount because we have been able to work within the Utility Water Act Group and the Edison Electric Institute to have the Supreme Court rule on the 316 (b) Phase II Rule without assistance from outside consultants or outside legal counsel retained by FPL.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
In May 2012, EPA secured an additional year to finalize the rule under a modified settlement agreement. The Agency is working to finalize the standards by June 27, 2013. EPA issued two Notices of Data Availability (NODA) in mid-June that described flexibilities EPA is considering as part of the impingement mortality limitations and that described the preliminary results of surveys of households' willingness to pay for incremental reductions in fish mortality. This extension will allow EPA to complete analysis of data, options and public comments on the NODAs prior to finalizing the rule. On July 11, 2012, FPL submitted comments on the NODA to EPA.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $1,111,073 or 93.9% lower than previously projected. EPA announced on July 18, 2012 that issuance of the new 316(b) rule would be delayed until July 27, 2013 (although this does not preclude EPA from issuing it earlier). As a result, it is now anticipated that originally projected 2012 costs for studies will be spent in 2013. Also, costs for Manatee, Sanford and Putnam plants with closed cooling systems were removed from the budget since it is unlikely that the final rule will apply to these plants. Since the rule is not final, these revised estimates are subject to change pending the specific documentation and schedule requirements in the final rule.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The NODA that EPA issued suggests that the agency is considering more flexibility in implementing the proposed impingement standards, including relief from the mortality standard and monitoring. FPL provided EPA with positive feedback on these aspects. Although an additional year has been granted for rule finalization, EPA may not wait the full year to issue the rule.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $264,108.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: SCR Consumables - O&M
Project No. 29

Project Description:
The Manatee Unit 3 and Martin Unit 8 Expansion Project Final Orders of Certification under the Florida Power Plant Siting Act and the PSD Air Construction Permit require the installation of SCRs on each of the plants' four Heat Recovery System Generators (HRSG) for the control of nitrogen oxide (NOx) emissions. The Florida Department of Environmental Protection (FDEP) made the determination that the SCR system is considered Best Available Control Technology (BACT) for these types of units, with concurrence from the U.S. Environmental Protection Agency (EPA). The operation of the SCRs will cause FPL to incur O&M costs for certain products that are consumed in the SCRs. These include anhydrous ammonia, calibration gases, and equipment wear parts requiring periodic replacement such as controllers, ammonia detectors, heaters, pressure relief valves, dilution air blower components, NOX control analyzers and components.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The SCR systems are operational on both Manatee Unit 3 and Martin Unit 8. An inspection of the ammonia injection system is required in 2012 on Units C and D at a cost of approx. $70,000. This is a required, repetitive inspection to determine remaining catalyst life.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $144,143 or 41.2% higher than previously projected. The variance is primarily due to unexpected repairs of the Anhydrous Ammonia tank at the Martin and Manatee plants found during the planned inspection required by the plants' risk management plans per the Air Permit Facility-Wide Conditions (FW9), and by regulation under 40 CFR Part 68. The Anhydrous Ammonia tank required repairs to fittings that were showing signs of corrosion at several locations on the tank. The ammonia system had to be drained in order to repair the fittings and as a result ammonia costs increased. In addition, there were unanticipated costs associated with the inspection of the ammonia piping at the Manatee plant. As part of the plants' risk management plans, this inspection will occur every five years and will require a piping Non Destructive Examination (NDE) inspection, pipe coating and the removal of pipe lagging.

Project Progress Summary:
(January 1, 2012 December 31, 2012)
The SCR systems are operating reliably on both Manatee Unit 3 and Martin Unit 8.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $350,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Hydrobiological Monitoring Program (HBMP) - O&M
Project No. 30

Project Description:
The Hydrobiological Monitoring Program is required by the Water Management District in the Conditions of Certification for Manatee Unit 3. The program involves the data collection of river chemistry, flow and vegetation conditions to demonstrate that the plant's withdrawals do not impact the environment in and along the river. The Hydrobiological Monitoring Program is a 10 year study which started in 2003 during the construction phase of Unit 3 and will be completed in 2013.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Continue with river monitoring, calibration, maintenance and data collection. Vegetative mapping, aerial photography and mapping will be conducted during the fall of 2011, for reports due in 2013. A Data Summary Report was completed in March 2011. In May thru July 2012, additional data was gathered to report effects of the Emergency Diversion Schedule (utilized May thru July 2012) on river quality. Data acquisition and analysis, along with a report to SWFWMD is required any time the Emergency Diversion Schedule is used. A charge of ~ $8200 will be incurred for this work in 2012

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
There is no variance.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
This is an ongoing project.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $22,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: CAIR – O&M
Project No. 31

Project Description:
In response to the EPA Clean Air Interstate Rule (CAIR), FPL initiated the CAIR Project to implement strategies to comply with Annual and Ozone Season NOx and SO2 emissions requirements. The CAIR project to date has included the Black & Veatch (B&V) study of FPL's control and allowance management options, an engineering study conducted by Aptech for the reliable cycling of the 800 MW units, the costs for the operation of SCR's constructed on SJRPP Units 1 and 2, costs for the operation of the Scrubber and SCR being installed on Scherer Unit 4, and the installation of CEMS for the peaking gas turbine units. The 800 MW Cycling Project was added to CAIR after 2006 submittal. Aptech Engineering provided engineering services for the first phase of a multiphase scope of work that will assure that the operating reliability is maintained in a cycling mode. The study costs to Aptech Engineering have been paid and a significant portion of the work has been completed on the Martin and Manatee 800 MW units. Several countermeasures that were prioritized and scheduled for implementation in 2008 – 2011. The CEMS installation on the Gas Turbine Peaking Units has been completed with ongoing maintenance expenses for their operation. On December 3, 2008 Georgia EPD promulgated the GA Multi-Pollutant rule requiring installation of SCR and a Scrubber on Scherer Unit 4. Recently, on July 6, 2010, EPA proposed the Transport Rule, which will leave requirements to comply with the CAIR regulations in place until 2012 when a new program will be implemented to further reduce So2 and NOx emissions from fossil power plants.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
800MW Cycling Project - The A and B Boiler Feed Pump recirculation regulators were inspected at Martin 2. Martin has removed the isolation valves on the Controlled Extraction, valves on the Mass Blowdown Automation, as well as the control valves on the Spray Upgrades. The Water Induction Protection bridal piping was removed at Martin. Manatee 1 has had these projects installed. Manatee 1 also had the A and B BFP recirculation valves replaced. Three throttle valves were shipped off for refurbishment and SPE coating and returned. The Water Treatment Plant lease payments have started for both Martin and Manatee.

St. John's River Power Park (SJRPP) 1&2 SCR construction is in progress. Construction was completed on the Scherer FGD and SCR in May 2012. Performance guarantee testing of the SCR was completed in June 2012 and it is now in operation. Performance guarantee testing of the FGD is projected to be completed in August 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $1,120,991 or 24.1% lower than previously projected. The variance is primarily due to lower than expected operating expenses of the Scherer Unit 4 Selective Catalytic Reduction (SCR) and Flue Gas Desulfurization (FGD) as a result of a change in the start of the planned duct tie-in outage in 2012. This resulted in the final installation and testing of the SCR and FGD to occur later in the year than originally projected which reduced expected operating expenses. The SCR completed testing and was placed in service June 14, 2012 and testing of the FGD is expected to be completed in August 2012. Ammonia injection costs decreased as a result of less operating hours of the SJRPP SCR due to cost efficiencies. In addition, subsequent to FPL's projection of anticipated legal costs for challenging the Clean Air Interstate Rule (CAIR), on December 23, 2011, the U.S. Court of Appeals for the D.C. Circuit unexpectedly stayed the CSAPR rule, resulting in lower than projected legal expenses for 2012.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
As part of the 800 MW Cycling project the A and B Boiler Feed Pump recirculation regulators were inspected at Martin 2 and Manatee 1. Martin 2 and Manatee 1 have removed the isolation valves on the Controlled Extraction, valves on the Mass Blow-down Automation, as well as the control valves on the Spray Upgrades. The Water Induction Protection bridal piping was removed at Martin 2 and Manatee 1. Lease payments for the water treatment plant additions required at both Manatee and Martin have begun.

FPL's CAIR project at SJRPP U1 & 2 continues with both SCRs in operation. O&M expenses for reagents and maintenance will be ongoing. FPL's share of O&M costs associated with the CAIR Scrubber and SCRs at plant Scherer started in 2011 as common plant facilities were placed in service. Unit specific O&M expenses for the FGD and SCR started in 2012 after construction was completed and will be ongoing.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $8,675,688.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: BART Project – O&M
Project No. 32

Project Description:
Conduct air dispersion modeling to determine the visibility impacts to Federally Mandated Class 1 Areas (National Parks, National Wilderness Areas, etc.) from FPL's BART-Eligible units. The Regional Haze Rule, renamed the Clean Air Visibility Rule, (CAVR) mandates that certain vintage electric generating units (ca. 1962-1977) install Best Available Retrofit Technology (BART) if it is shown, via modeling that a unit causes or contributes to visibility impairment in any Class 1 Area.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
As a result of the D.C. Circuit Court of Appeals vacatur of CAIR and the subsequent determination that compliance with CAIR equals BART, FPL was then required to develop 5-factor BART determinations for those sources formerly exempt. To comply with the analysis requirements to determine what is the Best Available Retrofit Technology (BART) for each FPL BART-eligible source, FPL had to assess the following 5-factors: 1) The cost of compliance; 2) The energy and non-air quality environmental impacts of compliance; 3) Any existing pollution control technology in use at the source; 4) The remaining useful life of the source, and; 5) The degree of visibility improvement which may reasonably be anticipated from the use of BART. The required visibility modeling and BART determinations were made for Putnam 1&2, Manatee 1&2, Martin 1&2 and Turkey Point 1&2. The determinations were submitted to FDEP in 2012 for submittal in the Florida Regional Haze SIP to EPA.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $15,900, versus an original estimate of $0. As a result of the Circuit Court's vacature of CAIR, Florida's Regional Haze State Implementation Plan (SIP), which relied on EPA's assertion that CAIR was equal to BART (Best Available Retrofit Technology), was no longer valid for emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) which were part of the Clean Air Visibility Rule (CAVR). Therefore, several of our BART-eligible plants that were formerly exempt from BART controls for SO2 and NOx (Putnum Units 1 and 2, Turkey Point Units 1 and 2, Manatee Units 1 and 2, and Martin Units 1 and 2), are now required to develop 5-factor BART determinations and conduct visibility modeling to satisfy the BART requirements of CAVR. This was unanticipated until late 2011. The additional charges are consultant fees to develop the BART determinations and visibility modeling for the four plants identified above.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Submitted BART application for exempt facilities (PCC, PMR, PMT, PPE, PRV) to FDEP on January 31, 2007. BART determination for PTF was submitted to the FDEP. FDEP requested additional information on PTF February 26, 2007, which necessitated additional consultant modeling support. Response to FDEP with additional information submitted to FDEP May 3, 2007. FPL and FDEP successfully negotiated the terms of the Draft BART permit for PTF Units 1 and 2 with FPL receiving the final permit on April 14, 2009 for installation of new dust collectors in 2012. In 2012 FPL submitted a request to modify Turkey Point 1&2 BART permit on 01/25 to: a) remove the requirement to install new dust collectors, b) cease burning fossil fuel in Unit 2, and c) limit Unit 1 to an annual 25% capacity factor equivalent for oil fuel firing from December 31, 2013 until the MATS Rule becomes effective or June 1, 2017 whichever comes first. 5-factor BART Determinations were developed for PMT 1&2 and PMR 1&2 and submitted to FDEP on May 30, 2012. The PMT BART Determination proposed a reduction in fuel oil sulfur from 1.0% to and equivalent 0.7% and the addition of ESPs on Units 1&2. PMR proposed no changes with the exception of adding ESPs to Units 1&2 which are required under the EPA Mercury and Air Toxics Standards rule. We received the final modified BART permit for PTF on July 2nd, which included all of our proposed BART elements, including the withdrawal of the requirement to install new dust collectors saving approximately $3.7 million..

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **MATS Project – O&M**
Project No. 33

Project Description:
The Clean Air Mercury Rule (CAMR) was promulgated by the Environmental Protection Agency (EPA) on March 15, 2005, imposing nation-wide standards of performance for mercury (Hg) emissions from existing and new coal-fired electric utility steam generating units. The CAMR is designed to reduce emissions of Hg through implementation of coal-fired generating unit Hg controls. In addition, CAMR requires the installation of Hg Continuous Emission Monitoring Systems (HgCEMS) to monitor compliance with the emission requirements. The rule is implemented in two phases with an initial compliance date of 2010 for Phase I and the final required reductions of Phase II in 2018. The State of Florida has begun the implementation of the requirements for reduction of Hg through rule making process. Plant St. John's River Power Park (SJRPP) Units 1 & 2, in which FPL has 20% ownership shares, are affected units under this rule and will require the installation of Hg controls and HgCEMS. Similarly, the State of Georgia has also begun their rule making process to implement the federal rule, which will affect FPL's ownership share of Plant Scherer Unit 4, also requiring the installation of HgCEMS and Hg controls.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Scherer Unit 4 baghouse was placed into service April 4, 2010. The baghouse passed all performance guarantee tests in May 2010 and is now in continuous operation.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $48,903 or 1.5% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The FPL CAMR project at Plant Scherer includes FPL's costs from the installation of the baghouse, the mercury sorbant injection system with associated controls and material handling equipment, and capital additions to Plant Scherer common areas to accommodate sorbant delivery and storage and spent sorbant disposal. Hg controls at Plant Scherer were installed on all four units at the plant to comply with the Georgia Multi-Pollutant Rule. Installation of controls requires a specific sequence for the construction of the controls and material handling systems. The baghouse on Unit 4 was installed and placed in-service in April 2010. Ongoing O&M costs associated with the CAMR Compliance project include expenses associated with purchase of sorbant used for flue gas Hg removal and disposal of spent sorbant.

Project Projections:
(January 1, 2013 - December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $3,003,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: St. Lucie Cooling Water System Inspection and Maintenance – O&M
Project No. 34

Project Description:
The purpose of the proposed St. Lucie Plant Cooling Water System Inspection and Maintenance Project (the "Project") is to inspect and, as necessary, maintain the cooling water system (the "Cooling System") at FPL's St. Lucie nuclear plant , such that it minimizes injuries and/or deaths of endangered species and thus helps FPL to remain in compliance with the federal Endangered Species Act, 16 U.S.C. Section 1531, et seq. (the "ESA") The St. Lucie Plant is an electric generating station on Hutchinson Island in St. Lucie County, Florida. The plant consists of two nuclear-fueled units, both of which use the Atlantic Ocean as a source of water for once-through condenser cooling. This cooling water is supplied to the units via the Cooling System. The St. Lucie Plant cannot operate without the Cooling System. Compliance with the ESA is a condition to the operation of the St. Lucie Plant. Inspection and cleaning of the intake pipes is an "environmental compliance cost" under section 366.8255, Florida Statutes. The specific "environmental law or regulation" requiring inspection and cleaning of the intake pipes are terms and conditions that will be imposed pursuant to a Biological Opinion ("BO") that is to be issued by the National Oceanic and Atmospheric Administration ("NOAA") pursuant to section 7 of the ESA. It is anticipated that NOAA will finalize the BO in late 2012 or early 2013. NOAA sent the Nuclear Regulatory Commission ("NRC") a letter dated December 19, 2006, confirming its intent to issue the BO and stating the requirements that will be imposed pursuant to the BO with respect to inspection and cleaning of the intake pipes.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Cleaning of the 12' north intake pipe and velocity cap vertical section was completed in 2011.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The cleaning of all three (3) intake pipes and velocity cap vertical sections and the concrete removal at all three (3) velocity caps (for the installation of the turtle excluders) was completed in 2011.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Martin Plant Water System – O&M**
Project No. 35

Project Description:
The Martin Drinking Water System (DWS) is required to comply with the requirements the Florida Department of Environmental regulations rules for drinking water systems. The Florida Department of Environmental Protection (FDEP) determined the system must be brought into compliance with newly imposed drinking water rules for TTHM (trihalomethanes) and HAA5 (Haleo Acetic Acid). The upgrades to the potable water system will cause FPL to incur capital costs for major component upgrades to the system in order to comply with the new requirements. These include Nano filtration, air stripping, carbon and multimedia filtration. The operation of the potable system will cause FPL to incur O&M costs for certain products that are consumed during the water treatment process. These include carbon and multimedia bed media and nano filtration media.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The project has been implemented. The agency has inspected and approved system startup and testing. The system will continue to run throughout 2011. O&M dollars were expended on filter maintenance and expected until the end of 2011 and into 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
There is no variance explanation needed.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
O&M dollars were expended on filter maintenance and expected until the end of 2010 and into 2011.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $20,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Low Level Radioactive Waste – O&M**
Project No. 36

Project Description:
The Barnwell, South Carolina radioactive waste disposal facility is the only site of its kind presently available to FPL for disposal of Low Level Waste (LLW) such as radioactive spent resins, filters, activated metals, and other highly contaminated materials. The Barnwell facility ceased accepting LLW from FPL June 30th, 2008. This project will construct a LLW storage facility for class B and C radioactive waste at the St. Lucie Plant (PSL). Turkey Point (PTN) will be implementing a similar project; however the PTN project will start later than the PSL project since PTN has some limited existing LLW storage capacity. Where practical, this project will be implemented as part of a fleet approach. The objective at PSL and PTN is to ensure construction of a LLW storage facility with sufficient capacity to store all LLW B and C class waste generated at each plant site over a 5 year period. This will allow continued uninterrupted operation of the PSL and PTN nuclear units until an alternate solution becomes available. The LLW on site storage facilities at PSL and PTN will also provide a "buffer" storage capacity for LLW even if an alternate solution becomes feasible, should the alternate solution be delayed or interrupted at a later date.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Turkey Point LLW Storage Facility project schedule has been created. The Engineering Package has been completed and issued for construction. A contractor has been selected and contracts are in the process of being created. The construction of the LLW Storage Facility at Turkey Point is planned to commence in September of 2012 and is expected to be completed by September of 2013.

The St. Lucie LLW Storage Facility has been placed on hold in 2012 as a result of resources being dedicated to other projects. Completion of the Facility will resume in January of 2013 with the installation of the fiber optics for the fire detection system, installation of the internal shielding, and the crane rails for the gantry crane.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
No variance is expected. There are no project expenditures projected for 2012.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The construction of the LLW Storage Facility at Turkey Point is planned to commence in September of 2012 and is expected to be completed by September of 2013.

The LLW Project at St. Lucie has experienced some additional schedule delays due to the competition for resources being focused on other projects. This has resulted in delaying the completion of the facility to the 1st quarter 2013. The St. Lucie LLW schedule delay has shifted some of the projected 2010 expenditures for the construction work into 2011 and 2013.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: DeSoto Next Generation Solar Energy Center – O&M
Project No. 37

Project Description:
The DeSoto Next Generation Solar Energy Center ("DeSoto Solar") project is a zero greenhouse gas emitting renewable generation project, which on August 4, 2008, the Commission found in Order Number PSC-08-0491-PAA-EI, to be eligible for recovery through the ECRC pursuant to House Bill 7135. The DeSoto Solar project is a 25 MW solar photovoltaic generating facility which will convert sunlight directly into electric power. The facility will utilize a tracking array that is designed to follow the sun as it traverses through the sky. In addition to the tracking array this facility will utilize cutting edge solar panel technology. The project will involve the installation of the solar PV panels and tracking system and electrical equipment necessary to convert the power from direct current to alternating current and to connect the system to the FPL grid.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Through end of June, 2012, Desoto's net energy production was 79,032 MWHs. No major maintenance events during this time. The primary accomplishment for the year is the installation of a Low Voltage Ride Through system on each inverter. The site is currently transitioning out of the warranty period. Site personnel have initiated a project studying panel degradation by using an IV Curve Tracer. Installation of current transformers on the DC inputs to the inverters is scheduled to begin during the third quarter of the year. This will give site personnel the ability to detect changes in DC generation in the solar array.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $127,739 or 11.5% lower than previously projected. The variance is primarily due to lower than projected costs associated with employee payroll and related expenses, and overheads as a result of obtaining more experience in maintaining the Desoto and Space Coast facilities. It was determined that the site personnel at Desoto could also support Space Coast Next Generation Solar Energy Center reducing the payroll costs and expenses remaining at Desoto. Additionally, planned technical support payroll and expenses were less than projected as a result of less fleet team support.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Desoto achieved Commercial Operation on October 27, 2009 and Final Acceptance on April 27, 2010.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $1,127,902.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Space Coast Next Generation Solar Energy Center – O&M
Project No. 38

Project Description:
The Space Coast Next Generation Solar Energy Center ("Space Coast Solar") project is a zero greenhouse gas emitting renewable generation project, which on August 4, 2008, the Commission found in Order Number PSC-08-0491-PAA-EI, to be eligible for recovery through the ECRC pursuant to House Bill 7135. The Space Coast Solar project is a 10 MW solar photovoltaic (PV) generating facility which will convert sunlight directly into electric power. The facility will utilize a fixed PV array oriented to capture the maximum amount of electricity from the sun over the entire year. The project will involve the installation of the solar PV panels and support structures and electrical equipment necessary to convert the power from direct current to alternating current and to connect the system to the FPL grid.

The Space Coast project also includes building a 900 KW solar PV facility at the Kennedy Space Center (KSC) industrial area. This 900 KW solar site will be built and operated and maintained by FPL as compensation for the lease of the land for the Space Coast Solar Site which is located on KSC property.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Through end of June, 2012, Space Coast's net energy production was 28,525 MWHs. The site operated with no major maintenance events. The warranty is still in effect until September 30, 2012. Installation of current transformers on the DC inputs to the inverters is scheduled to begin during the third quarter of the year. This will give site personnel the ability to detect changes in DC generation in the solar array.

KSC 1 MW site operated well with no major issues. Through end of June, 2012, net energy production was 2443 MWHs. Quarterly Operation and Maintenance reports were submitted to NASA in accordance with Lease Agreement between NASA and FPL.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $306,336 or 51.2% lower than previously projected. The variance is primarily due to lower than projected costs associated with employee payroll and related expenses, overheads, and contractor services. Two full-time positions included in the original budget will not be filled as maintenance and operations are now covered by personnel stationed at the Desoto Next Generation Solar Energy Center. In addition, the new grounds maintenance contract was renegotiated at a lower monthly cost and planned technical support was less than projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Space Coast Solar Site achieved commercial operation on April 16, 2010 and Final Acceptance is expected by September 30, 2010.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $353,176.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Martin Next Generation Solar Energy Center - O&M**
Project No. 39

Project Description:
The Martin Next Generation Solar Energy Center ("Martin Solar") project is a zero greenhouse gas emitting renewable generation project, which on August 4, 2008, the Commission found in Order Number PSC-08-0491-PAA-EI, to be eligible for recovery through the ECRC pursuant to House Bill 7135. The Martin Solar project is a 75 MW solar thermal steam generating facility which will be integrated into the existing steam cycle for the Martin Unit 8 natural gas-fired combined cycle power plant. The steam to be supplied by Martin Solar will be used to supplement the steam currently generated by the heat recovery steam generators. The project will involve the installation of parabolic trough solar collectors that concentrate solar radiation. The collectors will track the sun to maintain the optimum angle to collect solar radiation. The collectors will concentrate the sun's energy on heat collection elements located in the focal line of the parabolic reflectors. These heat collection elements contain a heat transfer fluid which is heated by the concentrated solar radiation to approximately 750 degrees Fahrenheit. The heat transfer fluid is then circulated to heat exchangers that will produce up to 75 MW of steam that will be routed to the existing natural gas-fired combined cycle Unit 8 heat recovery steam generators.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Commercial Operation was achieved on December 10, 2010. In the first seven months of operation this year, the plant generated approximately 63,170 MWH of equivalent steam.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $1,059,615 or 42.7% higher than previously projected. The variance is primarily due to higher maintenance costs, employee payroll, and gas usage. The number of solar employees increased from 7 to 15 for a total increase of $577,979 annually. The original staffing of 7 employees was based primarily on the number required to perform basic outside operations duties, inspection of watch, and minor maintenance. FPL planned to determine how much staffing was required after some operational experience and then increase staffing as needed. After several months of operation it became apparent that additional staffing was required to perform operational and maintenance duties. Four of eight employees were added in November, 2011 and the balance were added in January, 2012.

Mirror washing costs have also increased from the original 2012 estimate by $221,000. The original 2012 budget was based on washing mirrors every two weeks. FPL learned subsequently that mirror washing must be performed daily in order to maintain performance. A more aggressive cleaning schedule began in 2012 and will have an annual estimated cost of $459,238.

Additionally, nitrogen gas usage is greater than planned. Nitrogen gas is used to displace the water that mixes with the heat transfer fluid. FPL projects an additional cost of $147,900 for increased gas usage.

Lastly, the preheater leak repairs began in June 2012 in the amount of $175,000. Additional preheater leaks caused FPL to exceed their original maintenance budget.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Commercial Operation was achieved on December 10, 2010. In the first seven months of operation this year, the plant generated approximately 63,170 MWH of equivalent steam.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $3,105,612.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Greenhouse Gas Reduction Program - O & M
Project No. 40

Project Description:
The purpose of FPL's proposed Electric Utility Greenhouse Gas (GHG) Reduction Program is to implement both the reporting and emission reduction requirements established under Chapter 403 of the Florida Statutes and to comply with the EPA Mandatory GHG Reporting Rule promulgated on October 30, 2009. During the initial implementation of the Florida program, electric utilities, major emitters of GHG's, are required to participate in The Climate Registry providing historical and current (GHG) emission data to establish the baseline emissions and targets for the required compliance reductions to meet the 2017, 2025 and 2050 deadlines. In subsequent years utilities will be required to engage third party verification of their reported inventory. To comply with future GHG Cap and Trade programs FPL will need to recover GHG emission allowance costs through this project as needed. To achieve the future reduction goals established by the executive order, FPL anticipates that additional reductions in its GHG emissions will be required beyond the currently planned fossil unit conversions, nuclear uprates, and the addition of new nuclear generating units. The additional reductions will likely require a combination of the implementation of carbon sequestration and storage technology and the use of verified carbon offset projects. EPA's Mandatory (GHG) Reporting Rule requires electric utilities to record emissions of GHGs, primarily CO2 from the combustion of fossil fuels, and report actual data in a subsequent year. FPL was required to begin reporting GHGs emitted from its fossil generating units annually starting in 2011.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
FPL completed implementation for its GHG Reporting System and successfully reported required facility GHG emissions to the EPA prior to the regulatory deadline. The implementation included the installation and use of a GHG reporting system and the training of those employees responsible for imputing required data.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $58,500 or 97.5% lower than previously projected. The variance is primarily due to the purchase of a GHG reporting software and user training in 2011 subsequent to submittal of final projections for 2012. FPL implemented the system in 2011 earlier than anticipated to address initial implementation issues with sufficient margin prior to the regulatory required reporting deadline.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
FPL has implemented the system and completed one reporting cycle for FPL facilities required to report under the EPA Mandatory GHG Reporting Rule.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are $8,500.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Manatee Temporary Heating System – O&M**
Project No. 41

Project Description:
FPL is subject to specific and continuing legal requirements to provide a warm water refuge for the endangered manatee at its Riviera (PRV) and Cape Canaveral Plants (PCC). FPL has undertaken the design, engineering, purchase, and installation of a temporary manatee heating system at both PRV and PCC ("the Project"). The Project is required pursuant to PRV's and PCC's Manatee Protection Plans (MPP), as part of the State Industrial Wastewater Facility Permit Numbers FL0001546, Specific Condition 13, issued on February 16, 1998 and FL0001473, Specific Condition 9, issued on August 10,2005, respectively. In order to comply with the respective MPP's, FPL's installation of a temporary manatee heating system at PRV and PCC will be implemented to avoid potential adverse impacts to manatees congregating at PRV's and PCC's manatee embayment area. Manatees currently gather at the plants during the annual period from November 15 to March 31 at PRV and the annual period of October 15 to March 31 at PCC. FPL's installation of the Manatee Temporary Heating System at each site must be implemented to provide warm water until the site has completed the planned modernization of the existing power generation units and return of warm water flow from the generating unit cooling water will be provided by operation of the new units.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Manatee Temporary Heating System at PRV began operations in Q4 2009 and was available throughout the 09/10, 10/11 and 11/12 manatee season. The PCC Manatee Heating System work was completed in September 2010, and the unit was available throughout the 2010/2011 and 2011/2012 manatee season.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $705,074 or 52.8% less than previously projected. The variance is primarily due to lower than expected system operating costs at the Cape Canaveral plant as a result of design enhancements that were identified during the previous manatee heating season (October 2010 through March 2011), as well as unseasonably warm weather. The intake refuge perimeter design enhancement, primarily the addition of a sheet pile wall to minimize the refuge size and open boundary, has improved the capability to maintain the refuge at the required 68°F and thus minimizing the loss of heated water to the Indian River. In addition to the refuge perimeter enhancement, the unseasonably warm weather has resulted in the need to operate the primary heating source less often and no need to operate the supplemental heater. As a consequence, FPL has needed less contracted manpower to operate both heaters, as well as incurring reduced manatee observer labor costs.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The Manatee Temporary Heating System at PRV began operations in Q4 2009 and was available throughout the 09/10, 10/11 and 11/12 manatee season. The PCC Manatee Heating System work was completed in September 2010 and the unit was available throughout the 2010/2011 and 2011/2012 manatee season.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for January 2013 through December 2013 are $930,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Turkey Point Cooling Canal Monitoring Plan - O & M
Project No. 42

Project Description:
Pursuant to Conditions IX and X of the Florida Department of Environmental Protection's (FDEP) Final Order Approving Site Certification, filed October 29, 2008, FPL submitted its initial draft of the proposed Cooling Canal Monitoring Plan associated with FPL's Turkey Point Uprate Project to the South Florida Water Management District (SFWMD). This plan requires an assessment of baseline conditions to provide information on the vertical and horizontal extent of the hypersaline groundwater plume and effect of that plume on ground and surface water quality, if any. Comments, concerns and requests for revisions or action items were received from the SFWMD as well as the FDEP. Miami-Dade Department of Environmental Resource Management (DERM) has incorporated into the current draft the proposed monitoring plan, dated July 16, 2009.

The TP CCM Plan was finalized by FPL and the agencies on October 14, 2009. The objective of FPL's TP CCM Plan is to implement the Conditions of Certification IX and X, which states that "the Revised Plan shall be designed to be in concurrence with other existing and ongoing monitoring efforts in the area and shall include but not necessarily be limited to surface water, groundwater and water quality monitoring, and ecological monitoring to: delineate the vertical and horizontal extent of the hyper-saline plume that originates from the cooling canal system and to characterize the water quality including salinity and temperature impacts of this plume for the baseline condition; determine the extent and effect of the groundwater plume on surface water quality as a baseline condition; and detect changes in the quantity and quality of surface and groundwater over time due to the cooling canal system associated with the Uprate Project. The Revised Plan includes installation and monitoring of an appropriate network of wells and surface water stations.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
FPL received the final CCM Plan on October 14, 2009 from the Florida Department of Environmental Protection (FDEP), South Florida Water Management District (SFWMD) and Miami-Dade County. The Agencies approved the Quality Assurance Project Plan on December 2, 2011. The second Semi-Annual Report was submitted on March 28, 2012. The Comprehensive Pre-Uprate Monitoring Plan will be submitted on October 31, 2012. The Initial Ecological Condition Characterization Report was submitted in June 2012. FPL and the SFWMD conducted two environmental audits each in 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are expected to be $1,245,000 or 94.3% higher than previously projected. The variance is due to various factors. When the original budget was submitted it was assumed that after the first two years of data collection that the sampling and monitoring effort required by the agencies in the Monitoring plan would be reduced by approximately 50%. The agencies have not agreed to any of FPL's request to reduce sampling at this time. The agencies are requiring very detail analysis of the data collected in the semi-annual and annual reports that are a requirement of the Monitoring Plan. The cost of the lab analysis was underestimated, there are only a handful of labs that analyze for some of the specialized parameters that FPL is being required to monitor for and they are expensive. The time required for management of the consultants required the hiring of a project manager at the Turkey Point Site. Additional work such as annual geophysical survey were not anticipate but are being required annually by the agencies. All of this work is necessary to comply with the FPL Turkey Point Power Plant Groundwater, Surface Water, and Ecological Monitoring Plan and the Quality Assurance Project Plan.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Implementation of the CCM is ongoing and will continue throughout the year. Water Quality data collection continues; which consist of daily automated and quarterly water quality analysis in both surface water and groundwater well. Ecological and porewater monitoring is ongoing.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project O&M expenditures for the period January 2013 through December 2013 are $2,442,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: NESHAP Information Collection Request Project (National Emission Standards for Hazardous Air Pollutants) – O & M
Project No. 43

Project Description:
Pursuant to EPA's authority under Section 114 of the Clean Air Act (CAA), the EPA issued an Information Collection Request (ICR) to coal- and oil-fired electric utility steam generating units in January 2010. Four (4) FPL facilities received this information request from the EPA and were thus required by law to conduct extensive stack testing and oil sampling and analysis on eight (8) units in accordance with an EPA approved protocol. Data from the stack testing and analysis and the oil sampling and analysis was required to be quality assured and submitted to the EPA via the EPA Electronic Reporting Tool (ERT). EPA had solicited comments and any additional data which would assist them in writing the draft and final rules.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
All testing and sampling for the eight (8) units is complete. The final data and analysis reports for five (5) units are complete and have been submitted to the EPA. The final reports for two (2) units were submitted to the EPA on August 28, 2010, and the final report for the last unit will be submitted to the EPA in early September, 2010. FPL provided additional information to EPA on the risk assessment of oil-fired unit acid gasses and emissions of Nickel compounds that demonstrated risks below EPA threshold levels. FPL also filed comments with EPA on August 4, 2011 requesting that EPA reduce testing and reporting requirements, allow limited use units to operate without additional controls, and to not regulate acid gases from oil-fired units.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
No project expenditures are estimated for 2012.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
All testing and sampling for the eight (8) units is complete. The final data and analysis reports for five (5) units are complete and have been submitted to the EPA. The final reports for two (2) units was finalized and submitted to the EPA August 4, 2010. FPL provided additional data and analysis of residual fuel acid gasses and nickel compound emissions. With the close of the comment period on August 4, 2011, FPL does not anticipate any further activities for this project.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project O&M expenditures for the period January 2013 through December 2013 are $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Martin Plant Barley Barber Swamp Iron Mitigation Project – O & M
Project No. 44

Project Description:
Martin Plant Barley Barber Swamp Iron Mitigation Project was installed in 2011. The capital project included the installation of complete siphon systems to mitigate iron discharges in the Barley Barber Swamp. The systems will use cooling pond water (low iron) to hydrate the swamp are required by permit.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Capital installation project completed in May 2011. The project is now operational.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $2,150 or 95.6% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The project completed its first official month of operation in June of 2011. All three siphons are in service from the cooling pond to the Barley Barber Swamp.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are expected to be $0.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: 800MW Unit ESP Project – O & M
Project No. 45

Project Description:
On March 16, 2011 the Environmental Protection Agency (EPA) issued a proposed rule that would reduce emissions of toxic air pollutants from power plants. Specifically, the proposed toxics rule would reduce emissions of heavy metals, including mercury (Hg), arsenic, chromium, and nickel, and acid gases, including hydrogen chloride (HCl) and hydrogen fluoride (HF), from new and existing coal- and oil-fired electric utility steam generating units (EGUs). Following the publication of the proposed rule, on June 21, 2011 EPA extended the timeline for public input by 30 days on the proposed rule accepting comments on the proposal until August 4, 2011. The EPA is expected to finalize the air toxic rule by November 16, 2011. To comply, FPL will install Electrostatic precipitators on Manatee Units 1 & 2 and Martin Units 1 & 2.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Construction on Manatee 2 commenced in 2011 and was completed in June 2012. Construction on Manatee 1 is expected to begin in September 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance of $433,504 is due to O&M expenditures that were not included in the original 2012 projections because the final MATS rule had not yet been issued. On December 21, 2011, EPA issued the final MATS rule, which has the effect of requiring ESPs for the 800 MW oil-fired units. As a result, the revised estimate now includes O&M costs for the August 2012 - December 2012 period.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Construction on Manatee 2 commenced in 2011 and was completed in June 2012. Construction on Manatee 1 is expected to begin in September 2012

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are expected to be $1,447,087.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: St. Lucie Cooling Water Discharge Monitoring Project - O&M
Project No. 46

Project Description:
In conjunction with the St. Lucie Plant extended power uprates (EPUs) and a Florida Department of Environmental Protection (FDEP) permit modification authorizing a 2 degrees Fahrenheit increase to the plant's discharge temperature limitations, the St. Lucie Plant Industrial Wastewater Facility (IWF) Permit requires FPL to perform biological and thermal monitoring in the Atlantic Ocean, in the vicinity of FPL's St. Lucie Plant, in accordance with an FDEP Administrative Order (AO). The purpose of this monitoring project (biological and thermal monitoring) is to evaluate potential effects of the EPUs on the plant's indigenous ocean biological species and to ensure that the St. Lucie Plant remains in compliance with Florida environmental permits and regulations applicable to the discharge of heated water to an open ocean environment.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Six biological baseline sampling events (four since January 2012) have been performed by Ecological Associates, Inc. (EAI), FPL's contractor for implementation of the biological monitoring plan. The baseline sampling results will be compared with the sampling results obtained following implementation of both EPUs at the St. Lucie Plant.

FPL has submitted permits to the appropriate regulatory agencies to install the required thermal monitoring equipment in the Atlantic Ocean, in the vicinity of the St. Lucie Plant. The Golder Associates team, FPL's contractor for implementation of the thermal monitoring plan, is in the process of procuring, receiving and assembling the thermal monitoring components (anchors, buoys, current profilers and temperature loggers). A field reconnaissance has been performed to identify the locations, in the vicinity of the plant's discharge pipes, where the maximum surface discharge temperatures are observed and where thermal monitors need to be installed to assess plant discharge temperatures.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are $576,195 or 57.7% lower than previously projected. The variance is primarily due to reversing charges that were inadvertently included in the budget for this project. In addition, original estimates were based on initial contract bids. FPL has since received lower than estimated fixed price contracts for portions of the scope of work required. Costs were deferred to 2013 due to a shift in the Extended Power Uprate (EPU) outage schedule.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
As required by the AO, FPL submitted a Biological Plan of Study (BPOS) to the FDEP. The FDEP approved the BPOS for implementation. To date, the project has completed six of eight scheduled baseline sampling events, and is on schedule to perform the remaining two baseline sampling events prior to startup of Unit 2 following its EPU conversion. The data collected during each sampling event consists of obtaining general environmental data; water quality data; numbers and sizes of fish and shellfish collected by gill net, trawl, and beach seine; numbers of fish eggs and larvae and commercially or recreationally important decapod crustacean larvae collected by plankton net; and, numbers and sizes of sea turtles observed. Biological sampling data will be used to assess potential impacts of the EPUs based upon the pre-(baseline) and post-EPU biological monitoring performed.

As required by the AO, FPL submitted an Ambient Monitoring Report (AMR) and a Heated Water Plan of Study (HWPOS) to the FDEP. The ambient monitoring requirements were subsequently subsumed into the HWPOS which was approved for implementation by the FDEP. Implementation of the HWPOS remains on schedule for deployment of the thermal monitoring equipment during the St. Lucie Unit 2 EPU conversion outage. The activities to be performed and the data to be collected during execution of the HWPOS includes deploying, retrieving and downloading continuously monitored ambient and heated water plume temperatures and ocean currents data for assessment of FPL's modeling predictions and compliance with FDEP permits and regulations for discharging heated water to an open ocean environment.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are expected to be $388,941.

Post EPU biological sampling is projected to commence in January 2013. Post EPU biological monitoring will be performed, for a minimum of two years, following startup of Unit 2 (the EPU has been completed on Unit 1) after its EPU conversion as required by the AO and the BPOS.

The HWPOS is on schedule to be implemented following the startup of St. Lucie Unit 2 (the EPU has been completed on Unit 1) following its EPU conversion. Thermal monitoring will be performed, in accordance with the HWPOS, for a minimum of two years, following its implementation, as required by the AO and the HWPOS.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: NPDES Permits Project (National Pollutant Discharge Elimination System) – O & M
Project No. 47

Project Description:
The Federal Clean Water Act requires all point source discharges into navigable waters from industrial facilities to obtain permits under the NPDES program. See 33 U.S.C. Section 1342. Pursuant to the U.S. Environmental Protection Agency's delegation of authority, FDEP implements the NPDES permitting program in Florida. Affected facilities are required to apply for renewal of the 5-year-duration NPDES permits prior to their expiration. In April 2009, the FDEP amended Rule 62-620.620 (3), F.A.C. requiring all new or renewed wastewater discharge permits for major facilities, including power plants, to contain whole effluent toxicity (WET) limits. Additionally, FDEP has required that facilities prepare a Storm Water Pollution Prevention Plan (SWPPP) that conforms to Rule 62-620.100 (m), F.A.C. and 40 CFR Part 122.44(k) when the NDPES permits are renewed. The purpose of the SWPPP is to identify possible pollutant sources that can affect the water quality of stormwater and to require best management practices (BMPs) that, when implemented, will reduce or eliminate any possible pollution impacts to stormwater. FPL had several NPDES permits renewed in 2011 and 2012, and all of FPL's NPDES permits will have to be renewed over the next five years. In late September of 2012, the St. Lucie Plant received a final NPDES permit which contained a requirement to conduct a total residual oxidant plan of study (TROPOS) that will demonstrate that the discharges from the PSL cooling water system meet the State's Class III total residual oxidant water quality standard of 0,01 mg/l. FPL has requested that cost for the TROPOS be added to this project.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
48a. WET Testing – WET testing has been conducted at PPE, PFL, PFM, and PSL in 2012. PRV, PCC and PCU have WET Testing requirements in their NPDES permits but the facilities are not operating so sampling is not required until they do operate. 48b – SWPPP Development –the SWPPP for PFM was developed in 2012, however it was written by FPL staff so no ECRC costs were incurred.. 48c – TROPOS – A proposed TROPOS has been submitted to FDEP and work required by the TROPOS should begin as soon as it is approved by FDEP, which will most likely be in the latter part of 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $27,076 or 36.8% higher than previously projected. The variance was primarily due to a chlorination study that was required to be conducted by the St. Lucie Plant NPDES permit renewal that was not included in the original projections.

On August 9, 2012, FDEP approved the TROPOS and FPL received a revised estimate from a vendor for the completion of the TROPOS based on the approved TROPOS. FPL now anticipates spending $59,953 in 2012 on the TROPOS and thus a total of $126,677 for 2012 on this project.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
48a –Required WET Testing is being conducted as required by the NPDES permits.
48b –A SWPPP required for PFM was developed internally by FPL rather than using a consultant as anticipated.
48c –TROPOS has been submitted to FDEP for final approval. Work required by the plan is expected to commence in the latter part of 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project O&M expenditures for the period January 2013 through December 2013 are expected to be $113,500.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Industrial Boiler MACT Project – O & M
Project No. 48

Project Description:
40 CFR Part 63 Subpart JJJJJ Final Rule for National Emission Standards for Hazardous Air Pollutants [HAPS] for Area Sources: Industrial, Commercial, and Institutional Boilers was published in March 2011.
On March 21, 2011, EPA published notice that it intended to reconsider the major source rule, as well as the final rule establishing emissions standards for Boilers located at area sources. *See* 76 Fed. Reg. 15266. The area source rule was not stayed as the major source rule was and implementation started at the area sources based on the requirements of the final rule.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
FPL's Industrial Boiler MACT project changes included the EPA issued no action assurance letters addressing provisions of the final rule including initial tune-up requirements for existing industrial, commercial, and institutional boilers (Boilers) for both major and area sources. The assurance letters will remain in effect until the earlier of (1) October 1, 2012 or (2) the effective date of any final rule on reconsideration of the Boiler NESHAP. Required testing (tuning) for the industrial boilers at the FPL area sources were conducted in the July – December 2012 period (August 7,2012).

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $40,453 or 97.6% lower than originally projected. The variance is due to changes that were made to the implementation of the final rules which occurred after Commission approval of FPL's Industrial Boiler MACT project. On February 7, 2012, EPA issued no action assurance letters which granted extensions for boilers at area sources until the earlier of October 1, 2012 or a final rule on the reconsideration of the Industrial Boiler MACT. Additionally, EPA proposed reconsideration for area source boilers which would provide an additional year to comply with the testing requirements. FPL anticipates lower than originally projected costs for combustion tuning with required testing for its industrial boilers at area sources, which will be conducted in the July – December 2012 period following previously scheduled unit maintenance outages.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The one time Energy Assessments are due within 3-years of the rule effective date. An appropriate energy assessor will be contracted to complete energy assessments in early 2013 for two process heaters.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures for the period January 2013 through December 2013 are expected to be $1,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Thermal Discharge Standards Project – O & M
Project No. 49

Project Description:
FPL power plants with once-through cooling water systems that were built before July 1, 1972, must meet a "narrative" thermal standard found in Chapter 62-302.520(1) (a)-(c) F.A.C. This rule is implemented through the National Pollutant Discharge Elimination System (NPDES) program. See 33 U.S.C. Section 1342. Pursuant to the U.S. Environmental Protection Agency's (EPA) approval, the Florida Department of Environmental Protection (FDEP) implements the NPDES permitting program in Florida. Affected facilities are required to apply for renewal of the 5-year-duration NPDES permits prior to their expiration.

Facilities that cannot meet the FDEP narrative standard for thermal discharges may apply for a "variance" (i.e. less stringent standards) under Section 316(a) of the Federal Clean Water Act. Section 316(a) ensures that thermal effluent limitations will assure protection and propagation of balanced, indigenous population of shellfish, fish, and wildlife and provides that thermal dischargers can be granted less stringent alternate thermal limits than those imposed by a state program if the discharger can demonstrate that the current effluent limitations, based on water quality standards, are more stringent than necessary to protect the aquatic organisms in the receiving water body.

Prior to 2008, 316(a) variance determinations were conducted using guidance from the EPA that was developed in 1977. If a variance from the state water quality standard for temperature was previously granted, facilities were not required to provide additional information regarding thermal discharges in their renewal application unless changes had been made to the thermal loading in the plant discharge. In 2008, the EPA issued additional guidance on this topic and, with the new guidance; the EPA has taken a much more active role in granting variances resulting in requests for expanded biological and thermal modeling/monitoring studies to justify the variances.

In addition, many plants that have once-through cooling water systems that discharge heated effluent and were originally deemed compliant with Chapter 62-302.520 (1) (a) (c) have been under scrutiny by the FDEP. Oversight of these facilities is also implemented via the NPDES permitting process. During recent permit renewals, the FDEP, much like the EPA with the 316(a) variances, has taken a more stringent approach to the required demonstration that substantial damage to aquatic organisms is not occurring in the receiving water bodies.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Reconnaissance sampling, as well as some baseline sampling, as required by the PCC NPDES permit, was begun in early 2012. However, FPL is only seeking recovery for work conducted after it files its petition for Commission approval of the project. Work required by the PRV NPDES permit, which consists mainly of Plan of Study development, will begin after filing for Commission approval of the project.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $175,000.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
FPL has begun basic reconnaissance sampling and has submitted the PCC thermal plan of study to the FDEP for final approval. Required background sampling will continue in 2012 as well as negotiations with FDEP and EPA Region 4 to obtain approval for the Plan of Study that was submitted to FDEP and EPA Region 4, previously. FPL will be submitting a proposed Plan of Study for PRV to FDEP by December 2012, as required by the NPDES permit (i.e. 18 months prior to commercial operation).

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project O&M expenditures for the period January 2013 through December 2013 are expected to be $175,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Steam Electric Guidelines Revised Rule - O & M
Project No. 50

Project Description:
Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. The current version of the rule was published in the Federal Register on November 19, 1982. On September 15, 2009, the EPA announced that they would undertake rulemaking to revise the rule because, "current regulations, which were issued in 1982, have not kept pace with changes that have occurred in the electric power industry over the last three decades." In early April 2012, EPA announced that a draft rule will be signed by November 20, 2012, with a final rule expected by April 28, 2014.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
FPL will be conducting extensive sampling and chemical analyses of the Manatee Plant oil ash and metal cleaning waste effluent streams in 2012. However, FPL is only seeking recovery for work conducted after it files its petition for Commission approval of the project.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project expenditures are estimated to be $5,000.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
FPL will be conducting extensive sampling and chemical analyses of the Manatee Plant oil ash and metal cleaning waste effluent streams in August 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project O&M expenditures for the period January 2013 through December 2013 are expected to be $45,000.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Gopher Tortoise Relocation Project – O&M**
Project No. 51

Project Description:
The Gopher tortoise (Gopherus polyphemus) is a state-designated threatened species, per Rule 68A-27.003(1)(d)3, F.A.C. Gopher tortoises have been creating burrows in the cooling pond embankments at FPL's Martin (PMR), Manatee (PMT) and Sanford (PSN) power plants over time, as well as in the oil tank farm embankments at PMR and PMT. Gopher tortoise burrows must be inspected and then filled as necessary to ensure the integrity of the embankments. Filling burrows means that affected gopher tortoises must be relocated. In 2008, the Florida Fish and Wildlife Conservation Commission provided new gopher tortoise guidelines that have changed the permitting process for relocations (i.e., an authorized gopher tortoise agent is now required to conduct surveys and perform relocations and all tortoises now must be sent to a recipient site).

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
As part of normal plant maintenance, FPL conducts periodic surveys at all three sites to ensure that the integrity of the embankments is maintained. In March 2012, surveys were conducted that found gopher tortoise burrows at PMT that could compromise the embankments' integrity. In order to fill the burrows at PMT, the gopher tortoises need to be relocated by an authorized gopher tortoise agent.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
There has been no cost to date. However, FPL projects that it will begin incurring costs for gopher tortoise relocations in September 2012. FPL's O&M cost estimate for the relocations at PMT is $37,500 in 2012.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
FPL will be applying for the permit and plans on relocating the tortoises in September of 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
As part of normal plant maintenance, FPL conducts periodic surveys at all three sites to ensure that the integrity of the embankments is maintained. FPL cannot predict at this time the costs that it will incur for this project beyond 2012. However, at this time we estimate that $37,500 of O&M will be spent for all three sites in 2013.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Numeric Nutrient Criteria – O&M
Project No. 52

Project Description:
The EPA is under a federal court order to implement numeric nutrient criteria (NNC) through NPDES permit renewals for the reduction of total nitrogen and total phosphorus discharges and load in Florida freshwaters to comply with the Federal Clean Water Act. The FDEP has drafted its own NNC rule and has strongly communicated to the EPA that it prefers to implement the state rule. The EPA supports the FDEP in that effort. The EPA has until the January 6, 2013 implementation date to review and approve the FDEP's proposed NNC rule. Either the EPA or FDEP numeric nutrient criteria rule will be implemented through NPDES Industrial Waste Water permit renewals for the reduction of total nitrogen (TN) and total phosphorus (TP) discharges and loading in Florida freshwaters.

FPL does not anticipate incurring costs for the project in 2012. For 2013, FPL projects to spend $0.442 million for O&M. The O&M activities include monthly water sampling (intake and discharge structures) and reporting, biological assessments (stream condition index assessment upstream and downstream of the discharges) and reporting, and changes to water chemistry. FPL plants that will be subject to the flowing streams (freshwater) numeric nutrient criteria are Ft. Myers, Manatee, Martin, Putnam, and Sanford.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The EPA has not implemented their rule or approved the FDEP rule to date.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
None.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
A contractor proposal has been received for the development and execution of water (TN and TP) and biological (Stream Condition Index) sampling at the intake and outfall structures at PFM, PPN, PMT, PMR, and PSN.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project O&M expenditures for the period January 2013 through December 2013 are expected to be $442,400.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Low NOx Burner Technology – Capital**
Project No. 2

Project Description:
Under Title I of the Clean Air Act Amendments of 1990, Public Law 101-349, utilities with units located in areas designated as "non-attainment" for ozone will be required to reduce NOx emissions by implementing Reasonably Available Control Technology (RACT). The Dade, Broward and Palm Beach county areas were classified as "moderate non-attainment" by the State of Florida and the EPA. FPL has six units in this affected area that require implementation of RACT for NOx emission reductions.

The Florida DEP designated Low NOx Burner Technology (LNBT) as RACT determining that it meets the requirement to reduce NOx emissions. Reductions are achieved by delaying the mixing of the fuel and air at the burner, creating a staged combustion process along the length of the flame. NOx formation is reduced because peak flame temperatures and availability of oxygen for combustion is reduced in the initial stages.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
All six units are in service and operational.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Dade, Broward and Palm Beach Counties have now been re-designated as "attainment" for ozone with air quality maintenance plans. This re-designation still requires that all controls, such as LNBT, placed in effect during the "non-attainment" be maintained. The LNBT burners are installed at all of the six units and design enhancements are complete.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $177,872.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Continuous Emission Monitoring System (CEMS) – Capital**
Project No. 3b

Project Description:
The Clean Air Act Amendments of 1990, Public Law 101-549, established requirements for the monitoring, record keeping, and reporting of SO2, NOx, CO, Carbon Dioxide (CO2/O2) emissions, as well as opacity data from affected air pollution sources. FPL has 57 units, which are affected and which have installed CEMS to comply with these requirements.

40 CFR Part 75 includes the general requirements for the installation, certification, operation and maintenance of CEMS and specific requirements for the monitoring of pollutants and opacity. These Systems continuously extract and analyze gaseous samples for each power plant stack and have automated data acquisition and reporting capability. Operation and maintenance of these systems in accordance with the provisions of 40 CFR Part 75 is an ongoing activity, which follow the Title IV CEMS Quality Assurance Program Manual.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
This is an ongoing project. No new additions to plants for 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $40,331 or 5.8% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
No new activity for 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $518,983.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Clean Closure Equivalency – Capital
Project No. 4b

Project Description:
In compliance with 40 CFR 270.1(c)(5) and (6), FPL developed Coeds for nine FPL power plants to demonstrate to the U.S. EPA that no hazardous waste or hazardous constituents remain in the soil or water beneath the basins which had been used in the past to treat corrosive hazardous waste. The basins, which are still operational as part of the wastewater treatment systems at these plants, are no longer used to treat hazardous waste.

To demonstrate clean closure, soil sampling and ground water monitoring plans, implementation schedules, and related reports must be submitted to the EPA. Capital costs are for the installation of monitoring wells (typically four per site) necessary to collect ground water samples for analysis.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $1,270.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Maintenance of Stationary Above Ground Fuel Storage Tanks – Capital
Project No. 5b

Project Description:
Florida Administrative Code (F.A.C.) Chapter 62-761, previously 17-762, which became effective on March 12, 1991, provides standards for the maintenance of stationary above ground fuel storage tank systems. These standards impose various implementation schedules for inspections/repairs and upgrades to fuel storage tanks.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Port Everglades Tank 904 liner replacement project was initiated in 2011 and completed in March, 2012. This project was required because the existing tank liner system (Delta Liner) failed. PPE Tank 903 has a similar Delta Liner system but has no indications of leaking at this time. This tank has the last Delta Liner in the FPL fleet and we are planning to replace that liner during the scheduled for API-653 internal inspection in 2016. If Tank 903 liner fails, we will have to accelerate the inspection and replacement at that time.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $14,277 or 1.4% higher than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The Port Everglades Tank 904 liner replacement project was initiated in 2011 and completed in March, 2012. No other capital tank work is planned until 2016.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $907,131.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Relocate Turbine Lube Oil Underground Piping to Above Ground – Capital**
Project No. 7

Project Description:
In accordance with criteria contained in Chapter 62-762 of the Florida Administrative Code (F.A.C.) for storage of pollutants, FPL initiated the replacement of underground Turbine Lube Oil piping to above ground installations at the St. Lucie Nuclear Power Plant.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
This project is complete.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $1,447.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Oil Spill Cleanup/Response Equipment – Capital**
Project No. 8b

Project Description:
The Oil Pollution Act of 1990 (OPA '90) mandates that all liable parties in the petroleum handling industry file plans by August 18, 1993. In these plans, a liable party must identify (among other items) its spill management team, organization, resources and training. Within this project, FPL developed the plans for ten power plants, five fuel oil terminals, three pipelines, and one corporate plan. Additionally, FPL purchased the mandated response resources and provided for mobilization to a worst case discharge at each site.

Project Accomplishments
(January 1, 2012 to December 31, 2012)
All equipment is being maintained and replaced as necessary to maintain compliance with regulatory guidelines for response readiness. In 2012, we intend to purchase two (2) boom reel trailers as well as to install two (2) fixed boom reels at Fort Myers Plant and Lauderdale Plant by end of the year.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $49,169 or 34.8% higher than originally projected. The variance is primarily due to charges related to the Discharge Canal and Intake Canal Oil Spill Hard Booms at the Port Everglades plant that were inadvertently charged to the SPCC-Spill Prevention, Control & Countermeasures project in June 2011. These costs were reclassified to this project in March 2012.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
All deadlines, both state and federal, have been met. Ongoing costs will be annual in nature and will consist of equipment upgrades/replacements.

Project Projections
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $159,618.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Relocate Storm Water Runoff – Capital**
Project No. 10

Project Description:
The new National Pollutant Discharge Elimination System (NPDES) permit, Permit No. FL0002206 for the St. Lucie plant, issued by the United States Environmental Protection Agency contains new effluent discharge limitations for industrial-related storm water from the paint and land utilization building areas. The new requirements became effective on January 1, 1994. As a result of these new requirements, the affected areas will be surveyed, graded, excavated and paved as necessary to clean and redirect the storm water runoff. The storm water runoff will be collected and discharged to existing water catch basins on site.

Project Accomplishments:
(January 1, 2012 December 31, 2012)
All activities are complete.

Project Fiscal Expenditures:
(January 1, 2012 December 31, 2012)
The variance in depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 December 31, 2012)
All activities are complete.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $7,846.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Scherer Discharge Pipeline- Capital**
Project No. 12

Project Description:
On March 16, 1992, pursuant to the provisions of the Georgia Water Control Act, as amended, the Federal Clean Water Act, as amended, and the rules and regulations promulgated there under the Georgia Department of Natural Resources issued the National Pollutant Discharge Elimination System (NPDES) permit for Plant Scherer to Georgia Power Company. In addition to the permit, the department issued Administrative Order EPD-WQ-1855, which provided a schedule for compliance by April 1, 1994 with the new facility discharge limitations to Berry Creek. As a result of these new limitations, and pursuant to the order, Georgia Power Company was required to construct an alternate outfall to redirect certain wastewater discharges to the Ocmulgee River. Pursuant to the ownership agreement with Georgia Power Company for Scherer Unit 4, FPL is required to pay for its share of construction of the discharge pipeline, which will constitute the alternate outfall.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $52,573.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Wastewater Discharge Elimination & Reuse – Capital
Project No. 20

Project Description:
Pursuant to 33 U.S.C. Section 1342 and 40 CFR 122, FPL is required to obtain NPDES permits for each power plant facility. The last permits issued contain requirements to develop and implement a Best Management Practice Pollution Prevention Plan (BMP3 Plan) to minimize or eliminate, whenever feasible, the discharge of regulated pollutants, including fuel oil and ash, to surface waters. In addition, the 1997 Federal Ambient Water Quality Criteria requires FPL to meet surface water standards for any wastewater discharges to groundwater at all plants, and the Dade County DERM requires the Turkey Point and Cutler plants' wastewater discharges into canals to meet county water quality standards found in Section 24-11, Code of Metropolitan Dade County.

In order to address these requirements, FPL has undertaken a multifaceted project which includes activities such as ash basin lining, installation of retention tanks, tank coating, sump construction, installation of pumps, motor, and piping, boiler blowdown recovery, site preparation, separation of stormwater and ashwater systems, separation of potable and service water systems, and the associated engineering and design work to implement these projects.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $420 or 0.3% higher than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
All activities are complete.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $84,240.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: St. Lucie Turtle Net – Capital
Project No. 21

Project Description:
FPL is limited in the number of lethal turtle takings permitted at its St. Lucie Power Plant by the Incidental Take Statement contained in the Endangered Species Act Section 7 Consultation Biological Opinion, issued to FPL on May 4, 2001 by the National Marine Fisheries Service ("NMFS"). The number of lethal takings permitted in a given year is calculated by taking one percent of the total number of loggerhead and green turtles captured in that year. The Incidental Take Statement separately limits the number of lethal takings of Kemp's Ridley turtles to two per year over the next ten years, and the number of lethal takings of either hawksbill or leatherback turtles to one of those species every two years over the next ten years. An effective 5-inch primary barrier net is vital to limiting the number of lethal turtle takes per year. In 2002, the existing net became deformed due to the influxes of jellyfish and algae entering the canal. With the Commission approval, a replacement and enhancement of the net system was performed. In 2007, the antifoulant and protective coating on the existing 5-inch net deteriorated and was experiencing UV damage. With Commission approval, FPL purchased and installed a new 5-inch net in 2009.

In October 2009, the 5-inch primary barrier net failed due to influxes of algae that entered the canal and created a blockage of approximately 80% of the net. The net is currently in a temporary configuration, which has created an effective temporary barrier for turtles. The Turtle Net project now requires the engineering, construction and installation of a more robust barrier structure that can withstand significant algal events and similar environmental challenges. The proposed design would include the removal of the damaged piles and installation of new piles and a support structure to effectively secure the net.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Engineers have proposed and are currently designing a more effective barrier structure that will include a method for tensioning the turtle net and the design of a portable lift station. Engineering is also working on a design to improve the debris handling capability of the structure in order to provide improved access for maintenance of the net.

Project Fiscal Expenditures:
(January 1, 2012 – December 31, 2012)
Project depreciation and return on investment are estimated to be $9,483 or 8.1% lower than originally projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Engineering vendor was selected and drawings are to be received by fourth quarter of 2012. Site certification approval process expected to commence during the fourth quarter of 2012. The current net will remain in a temporary configuration until the new structure is constructed. Engineering of the structure will continue through 2012. Construction activities on the net planned expected to begin first quarter 2013.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $120,414.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Pipeline Integrity Management (PIM) – Capital**
Project No. 22

Project Description:
FPL is required to develop a written pipeline integrity management program for its hazardous liquid / gas pipelines. This program must include the following elements: (1) a process for identifying which pipeline segments could affect a high consequence area; (2) a baseline assessment plan; (3) an information analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure; (4) the criteria for determining remedial actions to address integrity issues raised by the assessments and information analysis; (5) a continual process of assessment and evaluation of pipeline integrity; (6) the identification of preventive and mitigative measures to protect the high consequence area; (7) the methods to measure the program's effectiveness; (8) a process for review of assessment results and information analysis by a person qualified to evaluate the results and information; and, (9) record keeping.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
A pipeline leak detection system for the TMR-30 Pipeline was engineered and major elements purchased during the 2011 calendar year. Its installation and commission was completed and the system placed in service June 2012. Additionally, a pipeline leak detection system for the TMT-16 Pipeline is being designed with installation planned for 4Q12.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $132 or 0.1% higher than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Leak detection systems on pipeline are operational on TMR-30 and TMR-18 Pipelines. Addition of leak detection system on TMT-16 is expected to be completed 4Q12. These systems allow us to closely monitor pipeline delivery operations and provide for safe shutdown of the transfers if a leak is detected and confirmed. These leak detection systems are a pro-active element of our Pipeline Integrity Management program.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $342,928.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: SPCC (Spill Prevention, Control, and Countermeasures) – Capital
Project No. 23

Project Description:
The EPA first established the SPCC Program in 1973 when the agency issued the Oil Pollution Prevention Regulation (i.e., SPCC rule) to address the oil spill prevention provisions contained in the Federal Water Pollution Control Act of 1972 (later amended as the Clean Water Act). The purpose of the regulation was to prevent discharges of oil from reaching the navigable waters of the U.S. or adjoining shorelines and to prepare facility personnel to respond to oil spills. The SPCC regulation requires certain facilities to prepare and implement SPCC Plans and address oil spill prevention requirements including the establishment of procedures, methods, equipment, and other requirements to prevent discharges of oil as described above. Specifically, the rule applies to any owner or operator of a non-transportation related facility that:

- Has a combined aboveground oil storage capacity of more than 1320 gallons, or a total underground oil storage capacity exceeding 42,000 gallons (Note: the underground storage capacity does not apply to those tanks subject to all of the technical requirements of the federal underground storage tank rule found in 40 CFR 280 or a State approved program); and

- Due to its location, could be reasonably expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines.

  In January 1988, a large storage tank owned by Ashland Oil Company at a site in western Pennsylvania collapsed, releasing approximately 750,000 gallons of diesel fuel to the Monongahela River. Following calls for new tank legislation, an EPA task force recommended expanded regulation of aboveground tanks within the framework of existing legislative authority. The result was EPA's SPCC rulemaking package, the first phase of which was proposed in 1991. Due to a series of agency delays primarily resulting from the 1989 Exxon Valdez oil spill that required EPA to issue the Facility Response Plan rule under the Oil Pollution Act of 1990, the final SPCC Rule was not published until July of 2002. A deficiency was found at the St, Lucie Unit 2 Diesel Oil Storage Tank and refueling tank areas. In order to meet compliance regulations, these areas are required to have secondary containment systems installed. For compliance, it is necessary to install oil berms, designed to catch any spilled oil upon delivery, in these areas.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
FPL is begun demolishing an aboveground oil water separator at the Sanford Plant, July 30, 2012. Construction will include a new oil waster separator and two associated pumps. Project projected completion date September 1, 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $23,395 or 1.2% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
FPL began demolishing an aboveground oil water separator at the Sanford Plant, July 30, 2012. Construction will include a new oil waster separator and two associated pumps. Project projected completion date September 1, 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $1,562,026.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Manatee Reburn – Capital
Project No. 24

Project Description:
This project involves installation of reburn technology in Manatee Units 1 and 2. Reburn is an advanced nitrogen oxides (NOx) control technology that has been developed for, and applied successfully in, commercial applications to utility and large industrial boilers. The process is a proven advanced technology, with applications of a reburn-like flue gas incineration technique dating back to the late 1960s, and developments for applications to large coal fired power plants in the United States dating back to the early to mid 1980s.

Reburn is an in-furnace NOx control technology that employs fuel staging in a configuration where a portion of the fuel is injected downstream of the main combustion zone to create a second combustion zone, called the reburning zone. The reburning zone is operated under conditions where NOx from the main combustion zone is converted to elemental nitrogen (which makes up 79% of the atmosphere). The basic front wall-fired boiler reburning process is shown conceptually in Figure 1 (see below), and divides the furnace into three zones.

In the 1996-97 time periods, FPL invested a considerable effort evaluating the Manatee Units for the application of reburn technology. FPL has recently reviewed the reburn system designs previously proposed for the Manatee units, and concluded that a design for either oil or gas reburn would require very similar characteristics. This will require reburn fuel injectors to be located at the elevation of the present top row of burners, with reburn injectors on the boiler front and rear walls. For the present application the injectors will be required to have a dual fuel (oil and gas) capability. In order to provide adequate residence time for the reburn process, it is proposed to locate the reburn overfire air (OFA) ports between the boiler wing walls and to angle them slightly to provide better mixing with the boiler flow. Because of the complexity of the boiler flow field and the port location, it was determined that OFA booster fans would be required to assist the air-fuel mixing and complete the burnout process. Installation of reburn technology for Manatee Units 1 and 2 offers the potential to reduce NOx emissions through a "pollution prevention" approach that does not require the use of reagents, catalysts, and pollution reduction or removal equipment. FDEP and FPL agree that reburn technology is the most cost-effective alternative to achieve significant reductions in NOx emissions from Manatee Units 1 and 2.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Installation of the Unit 1 and Unit 2 equipment is complete, started up and completed process optimization of the new systems to ensure minimal emissions. Both units are out of warranty. New permit limits have been accepted by the FDEP. The project is continuing to incur on-going operating and maintenance costs.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $11,463 or 0.3% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Unit 1 and 2 both completed.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $3,130,961.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Pt. Everglades ESP (Electrostatic Percipitators) Technology – Capital**
Project No. 25

Project Description:
The requirements of the Clean Air Act direct the Environmental Protection Agency to develop health-based standards for certain "criteria pollutants". i.e. ozone (O3), sulfur dioxide (SO2), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NOx), an lead (Pb). EPA developed standards for the criteria pollutants and regulates the emissions of those pollutants from major sources by way of the Title V permit program. Florida has been granted authority from the EPA to administer its own Title V program which is at least as stringent as the EPA requirements. Florida is able to issue, renew and enforce Title V air operating permits for sources within the state via 403.061 Florida Statutes and Chapter 62-213 F.A.C., which is administered by the State of Florida Department of Environmental Protection ("DEP"). The Title V program addresses the six criteria pollutants mentioned earlier, and includes hazardous air pollutants (HAP). The EPA sets the limits of emissions of Hazardous Air Pollutants through the Maximum Achievable Control Technology (MACT). The original Port Everglades Title V permit, issued in 1998, expired in 2003. The renewal permit issued January 1, 2004 expired on December 31, 2008. A renewal permit application has been submitted and is pending DEP review. The DEP's Title V permit for FPL Port Everglades plant requires FPL to install and maintain Electrostatic Precipitators at all four Port Everglades units to address local concerns and to insure compliance with the National Ambient Air Quality Stands and the EPA MACT Standards.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
No Power Generation plant additions occurred.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
At this time, all four ESPs (Units 1 through 4) have construction activities completed and are operational. The Units 1-4 precipitators met all performance guarantees and permit requirements. The Units 1-4 stack emissions were well below the new Title V permit requirements of .03 lb/mmbtu particulate and 20% opacity. Enclosure of ash truck loading bay is completed to contain fugitive airborne ash during truck loadings.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $21,326,855.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: UST Replacement/Removal – Capital
Project No. 26

Project Description:
The Florida Administrative Code (FAC) Chapter 62-761.500, dated July 13, 1998, requires the removal or replacement of existing Category-A and Category-B storage tank systems with systems meeting the standards of Category-C storage tank systems by December 31, 2009. UST Category-A tanks are single-walled tanks or underground single-walled piping with no secondary containment that was installed before June 30, 1992.

UST Category-B tanks are tanks containing pollutants after June 30, 1992 or a hazardous substance after January 1, 1994 that shall have a secondary containment. Small diameter piping that comes in contact with the soil that is connected to a UST shall have secondary containment if installed after December 10, 1990.

UST and AST Category-C tanks under F.A.C. 62-761.500 are tanks that shall have some or all of the following; a double wall, be made of fiberglass, have exterior coatings that protect the tank from external corrosion, secondary containment (e.g., concrete walls and floor) for the tank and the piping, and overfill protection.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
There were no activities in 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $474 or 3.9% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Initial review of the scope of work has been completed.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $10,909.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: CAIR Compliance – Capital
Project No. 31

Project Description:
In response to the EPA Clean Air Interstate Rule (CAIR), FPL initiated the CAIR Project to implement strategies to comply with Annual and Ozone Season NOx and SO2 emissions requirements. The CAIR project to date has included the Black & Veatch (B&V) study of FPL's control and allowance management options, an engineering study conducted by Aptech for the reliable cycling of the 800 MW units, the costs for the operation of SCR's constructed on SJRPP Units 1 and 2, costs for the operation of the Scrubber and SCR being installed on Scherer Unit 4, and the installation of CEMS for the peaking gas turbine units. The 800 MW Cycling Project was added to CAIR after 2006 submittal. Aptech Engineering provided engineering services for the first phase of a multiphase scope of work that will assure that the operating reliability is maintained in a cycling mode. The study costs to Aptech Engineering have been paid and a significant portion of the work has been completed on the Martin and Manatee 800 MW units. Several countermeasures were prioritized and scheduled for implementation in 2008 – 2011. The CEMS installation on the Gas Turbine Peaking Units has been completed with ongoing maintenance expenses for their operation. On December 3, 2008 Georgia EPD promulgated the GA Multi-Pollutant rule requiring installation of SCR and a Scrubber on Scherer Unit 4. Recently, on July 6, 2010, EPA proposed the Transport Rule, which will leave requirements to comply with the CAIR regulations in place until 2012 when a new program will be implemented to further reduce So2 and NOx emissions from fossil power plants.

Project Accomplishments:
(January. 1, 2012 to December 31, 2012)
800MW Cycling - Completed the implementation of the major 800MW cycling countermeasures for Manatee Unit 1 and Martin Unit 2 during the first half of 2010. Construction efforts remain in progress to complete the remaining Superheat Spray, Extraction and Turbine.

SJRPP 1&2 SCR's are now in operation and construction was completed on the Scherer FGD and SCR in May 2012. Performance guarantee testing of the SCR was completed in June 2012 and it is now in operation. Performance guarantee testing of the FGD is projected to be completed in August 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $3,623,938 or 6.1% lower than previously projected. The variance is primarily due to a shift in Scherer Unit 4 FGD costs from 2012 to 2013. Additionally, Scherer Unit 4 SCR equipment and contingency costs were lower than originally projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Completed the implementation of the major 800MW cycling countermeasures for Manatee Unit 1 and Martin Unit 2 during the first half of 2010. Construction efforts remain in progress to complete the remaining Superheat Spray, Extraction and Turbine Water Induction Prevention countermeasures for Martin Unit 1 by the end of the year. Completion of the Superheat Spray and Extraction countermeasures at Manatee Unit 2 along with Rotor Stress are scheduled for 2011.

FPL's CAIR project at SJRPP U1 & 2 continues with both SCR's in operation. Installation of Scrubbers and SCR's at plant Scherer for compliance with CAIR was completed with the SCR now in operation and the FGD projected to complete performance guarantee testing in August 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $59,839,942.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **MATS Project – Capital**
Project No. 33

Project Description:
The Clean Air Mercury Rule (CAMR) was promulgated by the Environmental Protection Agency (EPA) on March 15, 2005, imposing nation-wide standards of performance for mercury (Hg) emissions from existing and new coal-fired electric utility steam generating units. The CAMR is designed to reduce emissions of Hg through implementation of coal-fired generating unit Hg controls. In addition, CAMR requires the installation of Hg Continuous Emission Monitoring Systems (HgCEMS) to monitor compliance with the emission requirements. The rule is implemented in two phases with an initial compliance date of 2010 for Phase I and the final required reductions of Phase II in 2018. The State of Florida has begun the implementation of the requirements for reduction of Hg through rule making process. Plant St. John's River Power Park (SJRPP) Units 1 & 2, in which FPL has 20% ownership shares, are affected units under this rule and will require the installation of Hg controls and HgCEMS. Similarly, the State of Georgia has also begun their rule making process to implement the federal rule, which will affect FPL's ownership share of Plant Scherer Unit 4, also requiring the installation of HgCEMS and Hg controls.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Scherer Unit 4 baghouse was placed into service April 4, 2010 meeting the GA Multi-Pollutant Rule requirements. The baghouse passed all performance guarantee tests in May 2010 and is now in continuous operation.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return are estimated to be $44,519 or 0.4% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The Scherer Unit 4 baghouse was placed into service April 4, 2010. The baghouse passed all performance guarantee tests in May 2010.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $12,011,159.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: St. Lucie Cooling Water System Inspection and Maintenance – Capital
Project No. 34

Project Description:
The purpose of the proposed St. Lucie Plant Cooling Water System Inspection and Maintenance Project (the "Project") is to inspect and, as necessary, maintain the cooling water system (the "Cooling System") at FPL's St. Lucie nuclear plant , such that it minimizes injuries and/or deaths of endangered species and thus helps FPL to remain in compliance with the federal Endangered Species Act, 16 U.S.C. Section 1531, et seq. (the "ESA") The St. Lucie Plant is an electric generating station on Hutchinson Island in St. Lucie County, Florida. The plant consists of two nuclear-fueled units, both of which use the Atlantic Ocean as a source of water for once-through condenser cooling. This cooling water is supplied to the units via the Cooling System. The St. Lucie Plant cannot operate without the Cooling System. Compliance with the ESA is a condition to the operation of the St. Lucie Plant. Inspection and cleaning of the intake pipes is an "environmental compliance cost" under section 366.8255, Florida Statutes. The specific "environmental law or regulation" requiring inspection and cleaning of the intake pipes are terms and conditions that will be imposed pursuant to a Biological Opinion ("BO") that is to be issued by the National Oceanic and Atmospheric Administration ("NOAA") pursuant to section 7 of the ESA. It is anticipated that NOAA will finalize the BO in late 2012 or early 2013. NOAA sent the Nuclear Regulatory Commission ("NRC") a letter dated December 19, 2006, confirming its intent to issue the BO and stating the requirements that will be imposed pursuant to the BO with respect to inspection and cleaning of the intake pipes.

Project Accomplishments:
(January 1, 2012 thru December 31, 2012)
Preliminary turtle excluder design documents (drawings and calculations) were completed in the spring of 2010. No work on the turtle excluder design package and testing will be performed until we receive the issuance of the Biological Opinion.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in the project depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The turtle excluder design package documents (drawings and calculations) were started in the spring of 2009. Preliminary design documents were completed in spring of 2010. Flow meters to be installed in 2011. Final documents and testing anticipated to be completed in 2013.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are $17,946.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Martin Plant Drinking Water System Compliance – Capital**
Project No. 35

Project Description:
The Martin Drinking Water System (DWS) is required to comply with the requirements the Florida Department of Environmental regulations rules for drinking water systems. The Florida Department of Environmental Protection (FDEP) determined the system must be brought into compliance with newly imposed drinking water rules for TTHM (trihalomethanes) and HAA5 (Haleo Acetic Acid). The upgrades to the potable water system will cause FPL to incur capital costs for major component upgrades to the system in order to comply with the new requirements. These include Nano filtration, air stripping, carbon and multimedia filtration. The operation of the potable system will cause FPL to incur O&M costs for certain products that are consumed during the water treatment process. These include carbon and multimedia bed media and nano filtration media.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The system is in service in 2008 and operating as designed.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in the project depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The installation was approved by FDEP, the capital installation was completed in 2008 and the system is in service.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for the period January 2013 through December 2013 are $24,932.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Low Level Radioactive Waste - Capital**
Project No. 36

Project Description:
The Barnwell, South Carolina radioactive waste disposal facility is the only site of its kind presently available to FPL for disposal of Low Level Waste (LLW) such as radioactive spent resins, filters, activated metals, and other highly contaminated materials. The Barnwell facility ceased accepting LLW from FPL June 30th, 2008. This project will construct a LLW storage facility for class B and C radioactive waste at the St. Lucie Plant (PSL). Turkey Point (PTN) will be implementing a similar project; however the PTN project will start later than the PSL project since PTN has some limited existing LLW storage capacity. Where practical, this project will be implemented as part of a fleet approach. The objective at PSL and PTN is to ensure construction of a LLW storage facility with sufficient capacity to store all LLW B and C class waste generated at each plant site over a 5 year period. This will allow continued uninterrupted operation of the PSL and PTN nuclear units until an alternate solution becomes available. The LLW on site storage facilities at PSL and PTN will also provide a "buffer" storage capacity for LLW even if an alternate solution becomes feasible, should the alternate solution be delayed or interrupted at a later date.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Turkey Point LLW Storage Facility project schedule has been created. The Engineering Package has been completed and issued for construction. A contractor has been selected and contracts are in the process of being created. The construction of the LLW Storage Facility at Turkey Point is planned to commence in September of 2012 and is expected to be completed by September of 2013.

The St. Lucie LLW Storage Facility has been placed on hold in 2012 as a result of resources being dedicated to other projects. Completion of the Facility will resume in January of 2013 with the installation of the fiber optics for the fire detection system, installation of the internal shielding, and the crane rails for the gantry crane.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $581,545 or 44.6% lower than previously projected. The variance is primarily due to a change in the in-service date from March 2012 to December 2013 due to the Turkey Point Unit 3 and Unit 4 EPU outages.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The construction of the LLW Storage Facility at Turkey Point is planned to commence in September of 2012 and is expected to be completed by September of 2013.

The LLW Project at St. Lucie has experienced some additional schedule delays due to the competition for resources being focused on other projects. This has resulted in delaying the completion of the facility to the 1st quarter 2013. The St. Lucie LLW schedule delay has shifted some of the projected 2010 expenditures for the construction work into 2011 and 2013.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are $744,133.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **DeSoto Next Generation Solar Energy Center – Capital**
Project No. 37

Project Description:
The DeSoto Next Generation Solar Energy Center ("DeSoto Solar") project is a zero greenhouse gas emitting renewable generation project which on August 4, 2008, the Commission found in Order Number PSC-08-0491-PAA-EI, to be eligible for recovery through the ECRC pursuant to House Bill 7135. The DeSoto Solar project is a 25 MW solar photovoltaic generating facility which will convert sunlight directly into electric power. The facility will utilize a tracking array that is designed to follow the sun as it traverses through the sky. In addition to the tracking array this facility will utilize cutting edge solar panel technology. The project will involve the installation of the solar PV panels and tracking system and electrical equipment necessary to convert the power from direct current to alternating current and to connect the system to the FPL grid.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Desoto Next Generation Solar Energy Center achieved Commercial Operation on October 27, 2009. All Engineering and Construction "punch list" items have been completed and Final Acceptance was achieved on April 27, 2010. During Q4 2011 an uninterruptible power supply for each inverter container was installed and software modifications were made to provide Low Voltage Ride Through capability which was a requirement to fully satisfy the plant interconnection requirements with the transmission system.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return were $103,004 or 0.6% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Desoto achieved Commercial Operation on October 27, 2009 and Final Acceptance on April 27, 2010. No plant additions are projected this year.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are expected to be $16,630,525.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Space Coast Next Generation Solar Energy Center – Capital
Project No. 38

Project Description:
The Space Coast Next Generation Solar Energy Center ("Space Coast Solar") project is a zero greenhouse gas emitting renewable generation project, which on August 4, 2008, the Commission found in Order Number PSC-08-0491-PAA-EI, to be eligible for recovery through the ECRC pursuant to House Bill 7135. The Space Coast Solar project is a 10 MW solar photovoltaic (PV) generating facility which will convert sunlight directly into electric power. The facility will utilize a fixed PV array oriented to capture the maximum amount of electricity from the sun over the entire year. The project will involve the installation of the solar PV panels and support structures and electrical equipment necessary to convert the power from direct current to alternating current and to connect the system to the FPL grid.

The Space Coast project also includes building a 900 KW solar PV facility at the Kennedy Space Center (KSC) industrial area. This 900 KW solar site will be built and operated and maintained by FPL as compensation for the lease of the land for the Space Coast Solar Site which is located on KSC property.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Space Coast Solar Site achieved commercial operation on April 16, 2010 and Final Acceptance occurred on October 13, 2010. No plant additions are projected this year.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return were $50 or 0.0% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Space Coast Solar Site achieved commercial operation on April 16, 2010 and Final Acceptance occurred on October 13, 2010. No plant additions are projected this year.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are $7,890,598.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Martin Next Generation Solar Energy Center – Capital**
Project No. 39

Project Description:
The Martin Next Generation Solar Energy Center ("Martin Solar") project is a zero greenhouse gas emitting renewable generation project which on August 4, 2008, the Commission found in Order Number PSC-08-0491-PAA-EI, to be eligible for recovery through the ECRC pursuant to House Bill 7135. The Martin Solar project is a 75 MW solar thermal steam generating facility which will be integrated into the existing steam cycle for the Martin Unit 8 natural gas-fired combined cycle power plant. The steam to be supplied by Martin Solar will be used to supplement the steam currently generated by the heat recovery steam generators. The project will involve the installation of parabolic trough solar collectors that concentrate solar radiation. The collectors will track the sun to maintain the optimum angle to collect solar radiation. The collectors will concentrate the sun's energy on heat collection elements located in the focal line of the parabolic reflectors. These heat collection elements contain a heat transfer fluid which is heated by the concentrated solar radiation to approximately 750 degrees Fahrenheit. The heat transfer fluid is then circulated to heat exchangers that will produce up to 75 MW of steam that will be routed to the existing natural gas-fired combined cycle Unit 8 heat recovery steam generators.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Commercial Operation of Martin Solar occurred on December 10, 2010. Five (5) plant addition scopes are in progress of completion by year end 2012.

1. Cold Reheat system additions – work on B & C trains are complete; A & D trains are projected to be complete in August 2012.
2. Heat Transfer Fluid Overflow prevention and containment – work is scheduled to begin during Q3 2012.
3. Dust Suppression and Road Paving – this work scope is projected to be complete in August 2012
4. Feedwater Recirculation – design and analysis has been completed based upon the current performance conditions; no further activity is currently scheduled.
5. Auxiliary Sky Vents additions – B & C trains are complete; A & D trains are projected to be complete in August 2012.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return were $432,621 or 0.9% higher than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Commercial Operation of Martin Solar occurred on December 10, 2010. Several plant addition scopes are in progress and scheduled for completion by year end 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are expected to be $47,298,902.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: **Manatee Temporary Heating System Project – Capital**
Project No. 41

Project Description:
FPL is subject to specific and continuing legal requirements to provide a warm water refuge for endangered manatees at its Riviera (PRV), Cape Canaveral (PCC) and Port Everglades (PPE) Plants. FPL has undertaken the design, engineering, purchase, and installation of a temporary manatee heating system at PRV, PCC, and PPE ("the Project"). The Project is required pursuant to PRV's, PCC's, and PPE's Manatee Protection Plans (MPP), as part of the State Industrial Wastewater Facility Permit Numbers FL0001546, Specific Condition 13, issued on February 16, 1998, FL0001473, Specific Condition 9, issued on August 10,2005, and FL0001538, Specific Condition 10, issued on July 22, 2010 respectively. In order to comply with the respective MPP's; FPL's installation of a temporary manatee heating system at PRV, PCC, and PPE will be implemented to avoid potential adverse impacts to manatees congregating at PRV's, PCC's, and PPE's manatee embayment area. Manatees currently gather at the plants during the annual period from November 15 to March 31 at PRV and PPE and the annual period of October 15 to March 31 at PCC. FPL's installation of the Manatee Temporary Heating System at each site must be implemented to provide warm water until the site has completed the planned modernization of the existing power generation units and return of warm water flow from the generating unit cooling water will be provided by operation of the new units.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The Manatee Temporary Heating System at PRV began operations in Q4 2009 and was available throughout the 2009 – 2012 manatee seasons. The PCC Manatee Temporary Heating System work was completed in September 2010 and the unit was available throughout the 2010 – 2012 manatee seasons. The PPE Manatee Temporary Heating System is scheduled to be operational and available January 2013 when the existing Port Everglades Units 1-4 shutdown.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $42,470 or 4.5% lower than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The PPE Manatee Temporary Hearting System is scheduled to be operational in Q4 2012.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are expected to be $1,270,783.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Turkey Point Cooling Canal Monitoring Plan – Capital
Project No. 42

Project Description:
Pursuant to Conditions IX and X of the Florida Department of Environmental Protection's (FDEP) Final Order Approving Site Certification, filed October 29, 2008, FPL submitted its initial draft of the proposed Cooling Canal Monitoring Plan associated with FPL's Turkey Point Uprate Project to the South Florida Water Management District (SFWMD). This plan requires an assessment of baseline conditions to provide information on the vertical and horizontal extent of the hypersaline groundwater plume and effect of that plume on ground and surface water quality, if any. Comments, concerns and requests for revisions or action items were received from the SFWMD as well as the FDEP. Miami-Dade Department of Environmental Resource Management (DERM) has incorporated into the current draft the proposed monitoring plan, dated July 16, 2009.

The TP CCM Plan was finalized by FPL and the agencies on October 14, 2009. The objective of FPL's TP CCM Plan is to implement the Conditions of Certification IX and X, which states that "the Revised Plan shall be designed to be in concurrence with other existing and ongoing monitoring efforts in the area and shall include but not necessarily be limited to surface water, groundwater and water quality monitoring, and ecological monitoring to: delineate the vertical and horizontal extent of the hyper-saline plume that originates from the cooling canal system and to characterize the water quality including salinity and temperature impacts of this plume for the baseline condition; determine the extent and effect of the groundwater plume on surface water quality as a baseline condition; and detect changes in the quantity and quality of surface and groundwater over time due to the cooling canal system associated with the Uprate Project. The Revised Plan includes installation and monitoring of an appropriate network of wells and surface water stations.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
The wells and monitoring equipment were installed in 2010 for the Cooling Canals at Turkey Point plant, which included probes, telemetry, solar panels and associated platforms to support the monitoring equipment.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance in the Project depreciation and return is estimated to be $0.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Drilling, construction of wells and equipment installation was completed in 2010.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are expected to be $383,311.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: Martin Plant Barley Barber Swamp Iron Mitigation Project – Capital
Project No. 44

Project Description:
Engineer and install a siphon and a new discharge system to turn the existing flow away from the Barley Barber Swamp and back into the Martin Plant Cooling Pond.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
A new siphon and discharge system was engineered and installed. The system has been placed into service.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
Project depreciation and return on investment are estimated to be $1,974 or 11.6% higher than previously projected.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
The project installation was engineered and installed. The capital project is in service.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are expected to be $18,168.

FLORIDA POWER & LIGHT COMPANY
PROJECT DESCRIPTION AND PROGRESS

Project Title: 800MW Unit ESP Project – Capital
Project No. 45

Project Description:
On December 21, 2011, Environmental Protection Agency issued the final Maximum Achievable Control Technology (MACT) rule, which has the effect of requiring ESPs for the 800 MW oil-fired units. Specifically, the final MACT rule established numerical emission limits for particulate material (PM) as a surrogate for all toxic metals, along with emission limits for acid gasses (hydrochloric and hydrofluoric acids). The numerical particulate emission limits require that FPL install particulate emission control devices on its Martin and Manatee 800 MW oil-fired units in order to retain its flexibility regarding the operation of those units on oil. ESPs are the most cost-effective form of particulate emission control for the 800 MW oil-fired units. As to the final MACT rule's limits on acid gasses, FPL has the compliance option of limiting the moisture content of the oil it burns in those units. To comply, FPL will install Electrostatic Precipitators on Manatee Units 1 and 2 and Martin Units 1 and 2.

Project Accomplishments:
(January 1, 2012 to December 31, 2012)
Work on Manatee Unit 2 commenced on October 3, 2011 and Mechanical completion was accomplished on June 12, 2012. The provisional acceptance was achieved on July 13, 2012. Manatee Unit 1 outage is scheduled to begin September 2, 2012 with Mechanical completion projected for June 2013.

Project Fiscal Expenditures:
(January 1, 2012 to December 31, 2012)
The variance of $6,171,976 is due to project depreciation and return on investment that were not included in the original 2012 projections because the final MATS rule had not yet been issued.

On December 21, 2011, EPA issued the final MATS rule, which has the effect of requiring ESPs for the 800 MW oil-fired units. Consistent with the stipulation in Order No. 11-0083-FOF-EI, FPL transferred the construction costs for the Manatee Unit 2 ESP, together with accumulated AFUDC, to ECRC-recoverable accounts as part of its January 2012 accounting entries.

Project Progress Summary:
(January 1, 2012 to December 31, 2012)
Work on Manatee Unit 2 commenced on October 3, 2011 and Mechanical completion was accomplished on June 12, 2012. The provisional acceptance was achieved on July 13, 2012. Manatee Unit 1 outage is scheduled to begin September 2, 2012 with Mechanical completion projected for June 2013.

Project Projections:
(January 1, 2013 to December 31, 2013)
Estimated project fiscal expenditures (depreciation and return) for January 2013 through December 2013 are expected to be $12,603,853.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
CALCULATION OF THE ENERGY DEMAND ALLOCATION % BY RATE CLASS

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
RATE CLASS	Avg 12 CP Load Factor at Meter (%) [a]	GCP Load Factor at Meter (%) [b]	Projected Sales at Meter (KWH) [c]	Projected Avg 12 CP at Meter (KW) [d]	Projected GCP at Meter (KW) [e]	Demand Loss Expansion Factor [f]	Energy Loss Expansion Factor [g]	Projected Sales at Generation (KWH) [h]	Projected Avg 12 CP at Generation (kW) [i]	Projected GCP Demand at Generation (kW) [j]	Percentage of KWH Sales at Generation (%) [k]	Percentage of 12 CP Demand at Generation (%) [l]	Percentage of GCP Demand at Generation (%) [m]
RS1/RST1	61.443%	58.164%	53,023,166,899	9,851,224	10,406,586	1.07934640	1.06237778	56,330,634,339	10,632,883	11,232,312	51.45044%	58.40675%	55.76814%
GS1/GST1/WIES1	76.122%	63.338%	5,844,824,242	876,512	1,053,416	1.07934640	1.06237778	6,209,411,403	946,060	1,137,000	5.67146%	5.19674%	5.64518%
GSD1/GSDT1/HLFT1	78.359%	69.534%	25,078,522,608	3,653,482	4,117,186	1.07921924	1.06227781	26,640,358,074	3,942,908	4,443,346	24.33238%	21.65851%	22.06110%
OS2	72.864%	15.876%	12,578,957	1,971	9,045	1.06664274	1.02956173	12,950,813	2,102	9,647	0.01183%	0.01155%	0.04790%
GSLD1/GSLDT1/CS1/CST1/HLFT2	81.031%	66.749%	11,310,651,252	1,593,418	1,934,367	1.07776257	1.06120242	12,002,890,480	1,717,326	2,084,789	10.96302%	9.43333%	10.35092%
GSLD2/GSLDT2/CS2/CST2/HLFT3	93.875%	81.465%	2,450,692,797	298,011	343,410	1.06537601	1.05091974	2,575,481,437	317,494	365,861	2.35236%	1.74400%	1.81649%
GSLD3/GSLDT3/CS3/CST3	103.341%	76.256%	199,482,765	22,036	29,862	1.02320090	1.01902664	203,278,252	22,547	30,555	0.18567%	0.12385%	0.15171%
SST1T	80.153%	35.887%	97,610,914	13,902	31,050	1.02320090	1.01902664	99,468,122	14,225	31,770	0.09085%	0.07814%	0.15774%
SST1D1/SST1D2/SST1D3	67.698%	40.071%	7,613,528	1,284	2,169	1.03677940	1.02956173	7,838,597	1,331	2,249	0.00716%	0.00731%	0.01117%
CILC D/CILC G	93.225%	85.747%	3,039,558,994	372,200	404,659	1.06418212	1.05118900	3,195,150,979	396,089	430,631	2.91834%	2.17573%	2.13807%
CILC T	95.590%	82.386%	1,341,477,742	160,202	185,877	1.02320090	1.01902664	1,367,001,556	163,919	190,189	1.24857%	0.90041%	0.94429%
MET	79.014%	65.198%	92,698,007	13,393	16,231	1.03677940	1.02956173	95,438,320	13,886	16,827	0.08717%	0.07627%	0.08355%
OL1/SL1/PL1	305.172%	49.469%	630,970,753	23,603	145,605	1.07934640	1.06237778	670,329,308	25,476	157,158	0.61226%	0.13994%	0.78029%
SL2, GSCU1	100.650%	99.349%	70,594,840	8,007	8,112	1.07934640	1.06237778	74,998,389	8,642	8,755	0.06850%	0.04747%	0.04347%
Total			103,200,444,298	16,889,245	18,687,574			109,485,230,069	18,204,888	20,141,090	100.00000%	100.00000%	100.00000%

(a) AVG 12 CP load factor based on 2011 load research data.

(b) GCP load factor based on 2011 load research data.

(c) Projected KWH sales for the period January 2013 through December 2013.

(d) Calculated: (Col 4)/(8,760 * Col 2)

(e) Calculated: (Col 4)/8,760 * Col 3)

(f) Based on 2011 demand losses.

(g) Based on 2011 energy losses.

(h) Col 4 * Col 8

(i) Col 2 * Col 7

(j) Col 3 * Col 7

(k) Col 9 / total for Col 9

(l) Col 10 / total for Col 10

(m) Col 11 / total for Col 11

Note: There are currently no customers taking service on Schedules ISST1(D) or ISST1(T). Should any customer begin taking service on these schedules during the period, they will be billed using the applicable SST1 Factor.

Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
ENVIRONMENTAL COST RECOVERY CLAUSE
CALCULATION OF ENVIRONMENTAL COST RECOVERY CLAUSE FACTORS

FORM: 42-7P

ESTIMATED FOR THE PERIOD OF: JANUARY 2013 THROUGH DECEMBER 2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
RATE CLASS	Percentage of KWH Sales at Generation (%) [a]	Percentage of 12 CP Demand at Generation (%) [b]	Percentage of GCP Demand at Generation (%) [c]	Energy Related Cost ($) [d]	CP Demand Related Cost ($) [e]	GCP Demand Related Cost ($) [f]	Total Environmental Costs ($) [g]	Projected Sales at Meter (KWH) [h]	Environmental Cost Recovery Factor ($/KWH) [i]
RS1/RST1	51.45044%	58.40675%	55.76814%	27,669,936	92,746,992	907,515	121,324,444	53,023,166,899	0.00229
GS1/GST1/WIES1	5.67146%	5.19674%	5.64518%	3,050,099	8,252,157	91,864	11,394,121	5,844,824,242	0.00195
GSD1/GSDT1/HLFT1	24.33238%	21.65851%	22.06110%	13,085,899	34,392,634	359,000	47,837,534	25,078,522,608	0.00191
OS2	0.01183%	0.01155%	0.04790%	6,362	18,338	779	25,479	12,578,957	0.00203
GSLD1/GSLDT1/CS1/CST1/HLFT2	10.96302%	9.43333%	10.35092%	5,895,890	14,979,648	168,441	21,043,978	11,310,651,252	0.00186
GSLD2/GSLDT2/CS2/CST2/HLFT3	2.35236%	1.74400%	1.81649%	1,265,092	2,769,389	29,560	4,064,040	2,450,692,797	0.00166
GSLD3/GSLDT3/CS3/CST3	0.18567%	0.12385%	0.15171%	99,851	196,672	2,469	298,992	199,482,765	0.00150
SST1T	0.09085%	0.07814%	0.15774%	48,859	124,076	2,567	175,502	97,610,914	0.00180
SST1D1/SST1D2/SST1D3	0.00716%	0.00731%	0.01117%	3,850	11,612	182	15,644	7,613,528	0.00205
CILC D/CILC G	2.91834%	2.17573%	2.13807%	1,569,477	3,454,945	34,793	5,059,215	3,039,558,994	0.00166
CILC T	1.24857%	0.90041%	0.94429%	671,479	1,429,808	15,366	2,116,653	1,341,477,742	0.00158
MET	0.08717%	0.07627%	0.08355%	46,880	121,119	1,360	169,359	92,698,007	0.00183
OL1/SL1/PL1	0.61226%	0.13994%	0.78029%	329,270	222,217	12,698	564,184	630,970,753	0.00089
SL2, GSCU1	0.06850%	0.04747%	0.04347%	36,840	75,384	707	112,931	70,594,840	0.00160
Total				53,779,784	158,794,992	1,627,300	214,202,076	103,200,444,298	0.00208

[a] From Form 42-6P, Col 12

[b] From Form 42-6P, Col 13

[c] From Form 42-6P, Col 14

[d] Total Energy $ from Form 42-1P, Line 5, Column 2

[e] Total CP Demand $ from Form 42-1P, Line 5, Column 3

[f] Total GCP Demand $ from Form 42-1P, Line 5, Column 4

[g] Col 5 + Col 6 + Col 7

[h] Projected KWH sales for the period January 2013 through December 2013.

[i] Col 8 / Col 9

Note: There are currently no customers taking service on Schedules ISST1(D) or ISST1(T). Should any customer begin taking service on these schedules during the period, they will be billed using the applicable SST1 Factor.

Totals may not add due to rounding.

FLORIDA POWER & LIGHT COMPANY
COST RECOVERY CLAUSES

Equity @ 10.00%

CAPITAL STRUCTURE AND COST RATES PER MAY 2012 EARNINGS SURVEILLANCE REPORT
ORDER NO. PSC-12-0425-PAA-EU

	ADJUSTED RETAIL	RATIO	MIDPOINT COST RATES	WEIGHTED COST	PRE-TAX WEIGHTED COST
LONG TERM DEBT	5,649,185,325	29.134%	5.23%	1.52%	1.52%
SHORT TERM DEBT	456,240,461	2.353%	1.43%	0.03%	0.03%
PREFERRED STOCK	0	0.000%	0.00%	0.00%	0.00%
CUSTOMER DEPOSITS	499,755,277	2.577%	6.00%	0.15%	0.15%
COMMON EQUITY	9,065,636,845	46.754%	10.00%	4.68%	7.61%
DEFERRED INCOME TAX	3,716,119,664	19.165%	0.00%	0.00%	0.00%
INVESTMENT TAX CREDITS					
ZERO COST	0	0.000%	0.00%	0.00%	0.00%
WEIGHTED COST	3,146,438	0.016%	8.17%	0.00%	0.00%
			0.00%		
TOTAL	19,390,084,010	100.00%		6.39%	9.33%

CALCULATION OF THE WEIGHTED COST FOR CONVERTIBLE INVESTMENT TAX CREDITS (C-ITC) (a)

	ADJUSTED RETAIL	RATIO	COST RATE	WEIGHTED COST	PRE TAX COST
LONG TERM DEBT	5,649,185,325	38.39%	5.23%	2.01%	2.01%
PREFERRED STOCK	0	0.00%	0.00%	0.00%	0.00%
COMMON EQUITY	9,065,636,845	61.61%	10.00%	6.16%	10.03%
TOTAL	14,714,822,170	100.00%		8.17%	12.04%
RATIO					

DEBT COMPONENTS:	
LONG TERM DEBT	1.5246%
SHORT TERM DEBT	0.0337%
CUSTOMER DEPOSITS	0.1547%
TAX CREDITS -WEIGHTED	0.0003%
TOTAL DEBT	**1.7134%**
EQUITY COMPONENTS:	
PREFERRED STOCK	0.0000%
COMMON EQUITY	4.6754%
TAX CREDITS -WEIGHTED	0.0010%
TOTAL EQUITY	**4.6764%**
TOTAL	6.3898%
PRE-TAX EQUITY	7.6132%
PRE-TAX TOTAL	9.3266%

Note:

(a) This capital structure applies only to Convertible Investment Tax Credit (C-ITC).

APPENDIX II

ENVIRONMENTAL COST RECOVERY

RRL-9 & RRL-10
DOCKET NO. 120007-EI
FPL WITNESS: R. R. LABAUVE
EXHIBIT ______
PAGES 1-60

CHAPTER 62-302
SURFACE WATER QUALITY STANDARDS

62-302.200 Definitions.

As used in this chapter:

(1) "Acute t~~T~~oxicity" shall mean a concentration greater than one-third (1/3) of the amount lethal to 50 percent of the test organisms in 96 hours (96 hr LC_{50}) for a species protective of the indigenous aquatic community for a substance not identified in paragraph 62-302.500(1)(c), F.A.C., or for mixtures of substances, including effluents.

(2) "Annual a~~A~~verage f~~F~~low" is the long-term harmonic mean flow of the receiving water, or an equivalent flow based on generally accepted scientific procedures in waters for which such a mean cannot be calculated. For waters for which flow records have been kept for at least the last three years, "long-term" shall mean the period of record. For all other waters, "long-term" shall mean three years (unless the Department finds the data from that period not representative of present flow conditions, based on evidence of land use or other changes affecting the flow) or the period of records sufficient to show a variation of flow of at least three orders of magnitude, whichever period is less. For nontidal portions of rivers and streams, the harmonic mean (Q_{hm}) shall be calculated as

$$Q_{hm} = \frac{n}{\frac{1}{Q_1} + \frac{1}{Q_2} + \frac{1}{Q_3} + \frac{1}{Q_4} + \ldots + \frac{1}{Q_n}},$$

in which each Q is an individual flow record and n is the total number of records. In lakes and reservoirs, the annual average flow shall be based on the hydraulic residence time, which shall be calculated according to generally accepted scientific procedures, using the harmonic mean flows for the inflow sources. In tidal estuaries and coastal systems or tidal portions of rivers and streams, the annual average flow shall be determined using methods described in EPA publication no. 600/6-85/002b pages 142 - 227, incorporated by reference in paragraph 62-4.246(9)(k), F.A.C., or by other generally accepted scientific procedures, using the harmonic mean flow for any freshwater inflow. If there are insufficient data to determine the harmonic mean then the harmonic mean shall be estimated by methods as set forth in the EPA publication Technical Support Document for Water Quality-Based Toxics Control (March 1991), incorporated by reference in paragraph 62-4.246(9)(d), F.A.C., or other generally accepted scientific procedures. In situations with seasonably variable effluent discharge rates, hold-and-release treatment systems, and effluent-dominated sites, annual average flow shall mean modeling techniques that calculate long-term average daily concentrations from long-term individual daily flows and concentrations in accordance with generally accepted scientific procedures.

(3) No change.

(4) "Biological Health Assessment" shall mean one of the following aquatic community-based biological evaluations: Stream Condition Index (SCI), Lake Vegetation Index (LVI), or Shannon-Weaver Diversity Index.

(5) ~~(4)~~ "Chronic t~~T~~oxicity"

(a) through (b) No change.

(6) ~~(5)~~ No change.

(7) ~~(6)~~ "Compensation p~~P~~oint for p~~P~~hotosynthetic a~~A~~ctivity" shall mean the depth at which one percent of the light intensity at the surface remains unabsorbed. The light intensities at the surface and subsurface shall be measured simultaneously by irradiance meters such as Kahlsico Underwater Irradiameter (Model No. 268 WA 310), or other device having a comparable spectral response.

(8) ~~(7)~~ No change.

(9) ~~(8)~~ "Designated u~~U~~se" shall mean the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the Classification system contained in this Chapter.

(10) ~~(9)~~ "Dissolved m~~M~~etal" shall mean the metal fraction that passes through a 0.45 micron filter.

(11) ~~(10)~~ "Effluent l~~L~~imitation" shall mean any restriction established by the Department on quantities, rates or concentrations of chemical, physical, biological or other constituents which are discharged from sources into waters of the State.

(12) ~~(11)~~ "Exceptional e~~E~~cological s~~S~~ignificance" shall mean that a waterbody ~~water body~~ is a part of an ecosystem of unusual value. The exceptional significance may be in unusual species, productivity, diversity,

ecological relationships, ambient water quality, scientific or educational interest, or in other aspects of the ecosystem's setting or processes.

(13) ~~(12)~~ "Exceptional r~~R~~ecreational s~~S~~ignificance" shall mean unusual value as a resource for outdoor recreation activities. Outdoor recreation activities include, but are not limited to, fishing, boating, canoeing, water skiing, swimming, scuba diving, or nature observation. The exceptional significance may be in the intensity of present recreational usage, in an unusual quality of recreational experience, or in the potential for unusual future recreational use or experience.

(14) ~~(13)~~ "Existing u~~U~~ses" shall mean any actual beneficial use of the waterbody ~~water body~~ on or after November 28, 1975.

(15) ~~(14)~~ "IC25"or "Inhibition Concentration 25%" shall mean the concentration of toxicant that causes a 25% reduction in a biological response such as biomass, growth, fecundity, or reproduction in the test population when compared to the control population response.

(16) "Lake" shall mean, for purposes of interpreting the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., a lentic fresh waterbody with a relatively long water residence time and an open water area that is free from emergent vegetation under typical hydrologic and climatic conditions. Aquatic plants, as defined in subsection 62-340.200(1), F.A.C., may be present in the open water. Lakes do not include springs, wetlands, or streams (except portions of streams that exhibit lake-like characteristics, such as long water residence time, increased width, or predominance of biological taxa typically found in non-flowing conditions).

(17) "Lake Vegetation Index (LVI)" shall mean a Biological Health Assessment that measures lake biological health in predominantly freshwaters using aquatic and wetland plants, performed and calculated using the Standard Operating Procedures for the LVI in the document titled *LVI 1000: Lake Vegetation Index Methods* (DEP-SOP-003/11 LVI 1000) and the methodology in *Sampling and Use of the Lake Vegetation Index (LVI) for Assessing Lake Plant Communities in Florida: A Primer* (DEP-SAS-002/11), both dated 10-24-11, which are incorporated by reference herein. Copies of the documents may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(18) ~~(15)~~ "Man-induced conditions which cannot be controlled or abated" shall mean conditions that have been influenced by human activities, and

(a) through (b) No change.

(c) cannot be restored or abated by physical alteration of the waterbody ~~water body~~, or there is no reasonable relationship between the economic, social and environmental costs and the benefits of restoration or physical alteration.

(19) ~~(16)~~ "Natural b~~B~~ackground" shall mean the condition of waters in the absence of man-induced alterations based on the best scientific information available to the Department. The establishment of natural background for an altered waterbody may be based upon a similar unaltered waterbody, ~~or on~~ historical pre-alteration data, paleolimnological examination of sediment cores, or examination of geology and soils. When determining natural background conditions for a lake, the lake's location and regional characteristics as described and depicted in the U.S. Environmental Protection Agency document titled Lake Regions of Florida (EPA/R-97/127, dated 1997, U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Corvallis, OR), which is incorporated by reference herein, shall also be considered. The lake regions in this document are grouped according to ambient total phosphorus and total nitrogen concentrations in the following lake zones:

(a) The TP1 phosphorus zone consists of the USEPA Lake Regions 65-03, and 65-05.

(b) The TP2 phosphorus zone consists of the USEPA Lake Regions 75-04, 75-09, 75-14, 75-15 and 75-33.

(c) The TP3 phosphorus zone consists of the USEPA Lake Regions 65-01, 65-02, 75-01, 75-03, 75-05, 75-11, 75-12, 75-16, 75-19, 75-20, 75-23, 75-24, 75-27, 75-32 and 76-03.

(d) The TP4 phosphorus zone consists of the USEPA Lake Regions 65-04, 75-02, 75-06, 75-08, 75-10, 75-13, 75-17, 75-21, 75-22, 75-26, 75-29, 75-31, 75-34, 76-01and 76-02.

(e) The TP5 phosphorus zone consists of the USEPA Lake Regions 75-18, 75-25, 75-35, 75-36 and 76-04.

(f) The TP6 phosphorus zone consists of the USEPA Lake Regions 65-06, 75-07, 75-28, 75-30 and 75-37.

(g) The TN1 phosphorus zone consists of the USEPA Lake Region 65-03.

(h) The TN2 phosphorus zone consists of the USEPA Lake Regions 65-05 and 75-04.

(i) The TN3 phosphorus zone consists of the USEPA Lake Regions 65-01, 65-02, 65-04, 75-01, 75-02, 75-03, 75-09, 75-11, 75-15, 75-20, 75-23, 75-33 and 76-03.

(j) The TN4 phosphorus zone consists of the USEPA Lake Regions 65-06, 75-05, 75-06, 75-10, 75-12, 75-13, 75-14, 75-16, 75-17, 75-18, 75-19, 75-21, 75-22, 75-24, 75-26, 75-27 and 75-29, 75-31, 75-32, 75-34 and 76-02.

(k) The TN5 phosphorus zone consists of the USEPA Lake Regions 75-07,75-08, 75-25, 75-28, 75-30, 75-35, 75-36, 75-37, 76-01 and 76-04.
The Lake Regions document may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(20) ~~(17)~~ "Nuisance s~~S~~pecies" shall mean species of flora or fauna whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, a designated use of those waters.

(21) ~~(18)~~ "Nursery a~~A~~rea of i~~I~~ndigenous a~~A~~quatic l~~L~~ife" shall mean any bed of the following aquatic plants, either in monoculture or mixed: Halodule wrightii, Halophila spp., Potamogeton spp. (pondweed), Ruppia maritima (widgeon-grass), Sagittaria spp. (arrowhead), Syringodium filiforme (manatee-grass), Thalassia testudinum (turtle grass), or Vallisneria spp. (eel-grass), or any area used by the early-life stages, larvae and post-larvae, of aquatic life during the period of rapid growth and development into the juvenile states.

(22) "Nutrient" shall mean total nitrogen (TN), total phosphorus (TP), or their organic or inorganic forms.

(23) "Nutrient response variable" shall mean a biological variable, such as chlorophyll *a*, biomass, or structure of the phytoplankton, periphyton or vascular plant community, that responds to nutrient load or concentration in a predictable and measurable manner. For purposes of interpreting paragraph 62-302.530(47)(b), F.A.C., dissolved oxygen (DO) shall also be considered a nutrient response variable if it is demonstrated for the waterbody that DO conditions result in biological imbalance and the DO responds to a nutrient load or concentration in a predictable and measurable manner.

(24) "Nutrient Threshold" shall mean a concentration of nutrients that applies to a Nutrient Watershed Region and is derived from a statistical distribution of data from reference or benchmark sites. Nutrient Thresholds are only applied to streams as specified in paragraph 62-302.531(2)(c), F.A.C.

(25) "Nutrient Watershed Region" shall mean a drainage area over which the nutrient thresholds in paragraph 62-302.531(2)(c), F.A.C., apply.

(a) The Panhandle West region consists of the Perdido Bay Watershed, Pensacola Bay Watershed, Choctawhatchee Bay Watershed, St. Andrew Bay Watershed, and Apalachicola Bay Watershed.

(b) The Panhandle East region consists of the Apalachee Bay Watershed, and Econfina/Steinhatchee Coastal Drainage Area.

(c) The North Central region consists of the Suwannee River Watershed and the "stream to sink" region in Alachua, Marion and Levy Counties that is affected by the Hawthorne Formation.

(d) The West Central region consists of the Peace, Myakka, Hillsborough, Alafia, Manatee, Little Manatee River Watersheds, Sarasota/Lemon Bay Watershed and small, direct Tampa Bay tributary watersheds south of the Hillsborough River Watershed.

(e) The Peninsula region consists of the Waccasassa Coastal Drainage Area, Withlacoochee Coastal Drainage Area, Crystal/Pithlachascotee Coastal Drainage Area, small, direct Tampa Bay tributary watersheds west of the Hillsborough River Watershed, small, direct Charlotte Harbor tributary watersheds south of the Peace River Watershed, Caloosahatchee River Watershed, Estero Bay Watershed, Imperial River Watershed, Kissimmee River/Lake Okeechobee Drainage Area, Loxahatchee/St. Lucie Watershed, Indian River Watershed, Daytona/St. Augustine Coastal Drainage Area, St. John's River Watershed, Nassau Coastal Drainage Area, and St. Mary's River Watershed.

(f) The South Florida region consists of those areas south of the Peninsula region, such as the Cocohatchee River Watershed, Naples Bay Watershed, Rookery Bay Watershed, Ten Thousand Islands Watershed, Lake Worth Lagoon Watershed, Southeast Coast – Biscayne Bay Watershed, Everglades Watershed, Florida Bay Watershed, and the Florida Keys.
A map of the Nutrient Watershed Regions, dated October 17, 2011, is incorporated by reference herein and may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(19) through (21) renumber (26) through (28) No change.

(29) ~~(22)~~ "Predominantly f~~F~~resh w~~W~~aters" shall mean surface waters in which the chloride concentration ~~at the surface~~ is less than 1,500 milligrams per liter or specific conductance is less than 4,580 μmhos/cm.

(30) ~~(23)~~ "Predominantly m~~M~~arine w~~W~~aters" shall mean surface waters in which the chloride concentration ~~at the surface~~ is greater than or equal to 1,500 milligrams per liter or specific conductance is greater than or equal to 4,580 μmhos/cm.

(24) through (26) renumber (31) through (33) No change.

(34) ~~(27)~~ "Special Waters" shall mean water bodies designated in accordance with Rule 62-302.700, F.A.C., by the Environmental Regulation Commission for inclusion in the Special Waters Category of Outstanding Florida Waters, as contained in Rule 62-302.700, F.A.C. A Special Water may include all or part of any waterbody ~~water body~~.

(35) "Spring vent" shall mean a location where groundwater flows out of a natural, discernable opening in the ground onto the land surface or into a predominantly fresh surface water.

(36) "Stream" shall mean, for purposes of interpreting the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., under paragraph 62-302.531(2)(c), F.A.C., a predominantly fresh surface waterbody with perennial flow in a defined channel with banks during typical climatic and hydrologic conditions for its region within the state. During periods of drought, portions of a stream channel may exhibit a dry bed, but wetted pools are typically still present during these conditions. Streams do not include:

(a) non-perennial water segments where fluctuating hydrologic conditions, including periods of desiccation, typically result in the dominance of wetland and/or terrestrial taxa (and corresponding reduction in obligate fluvial or lotic taxa), wetlands, ~~or~~ portions of streams that exhibit lake characteristics (e.g., long water residence time, increased width, or predominance of biological taxa typically found in non-flowing conditions) or tidally influenced segments that fluctuate between predominantly marine and predominantly fresh waters during typical climatic and hydrologic conditions; or

(b) ditches, canals and other conveyances, or segments of conveyances, that are man-made, or predominantly channelized or predominantly physically altered and;

1. are primarily used for water management purposes, such as flood protection, stormwater management, irrigation, or water supply; and

2. have marginal or poor stream habitat or habitat components, such as a lack of habitat or substrate that is biologically limited, because the conveyance has cross sections that are predominantly trapezoidal, has armored banks, or is maintained primarily for water conveyance.

(37) "Stream Condition Index (SCI)" shall mean a Biological Health Assessment that measures stream biological health in predominantly freshwaters using benthic macroinvertebrates, performed and calculated using the Standard Operating Procedures for the SCI in the document titled *SCI 1000: Stream Condition Index Methods* (DEP-SOP-003/11 SCI 1000) and the methodology in *Sampling and Use of the Stream Condition Index (SCI) for Assessing Flowing Waters: A Primer* (DEP-SAS-001/11), both dated 10-24-11, which are incorporated by reference herein. Copies of the documents may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400. For water quality standards purposes, the Stream Condition Index shall not apply in the South Florida Nutrient Watershed Region.

(38) ~~(28)~~ "Surface w~~W~~ater" means water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the earth's surface.

(39) "Total Maximum Daily Load" (TMDL) for an impaired waterbody or waterbody segment shall mean the sum of the individual wasteload allocations for point sources and the load allocations for nonpoint sources and natural background. Prior to determining individual wasteload allocations and load allocations, the maximum amount of a pollutant that a waterbody or water segment can assimilate from all sources without exceeding water quality standards must first be calculated. A TMDL shall include either an implicit or explicit margin of safety and a consideration of seasonal variations.

(40) ~~(29)~~ "Total r~~R~~ecoverable m~~M~~etal" shall mean the concentration of metal in an unfiltered sample following treatment with hot dilute mineral acid.

(41) ~~(30)~~ No change.

(42) ~~(31)~~ "Water quality standards" shall mean standards composed of designated present and future most beneficial uses (classification of waters), the numerical and narrative criteria, including Site Specific Alternative Criteria, applied to the specific water uses or classification, the Florida anti-degradation policy, and the moderating provisions, such as variances, mixing zone rule provisions, or exemptions. ~~contained in this rule and in Chapter 62-4, adopted pursuant to Chapter 403, F.S.~~

(43) ~~(32)~~ No change.

(44) ~~(33)~~ "Zone of m~~M~~ixing" or "m~~M~~ixing z~~Z~~one" shall mean a volume of surface water containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters has been afforded.

Rulemaking Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804, 403.805 FS. Law Implemented 403.021, 403.031, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.502, 403.802 FS. History - New 05-29-90, Amended 2-13-92, Formerly 17-302.200, Amended 1-23-95, 5-15-02, 4-2-08, - -11.

62-302.530 Table: Surface Water Quality Criteria.

The following table contains both numeric and narrative surface water quality criteria to be applied except within zones of mixing. The left-hand column of the Table is a list of constituents for which a surface water criterion exists. The headings for the water quality classifications are found at the top of the Table, and the classification descriptions for the headings are specified in subsection 62-302.400(1), F.A.C. Applicable criteria lie within the Table. The individual criteria should be read in conjunction with other provisions in water quality standards, including Rule 62-302.500, F.A.C. The criteria contained in Rule 62-302.500, F.A.C., also apply to all waters unless alternative or more stringent criteria are specified in Rule 62-302.530, F.A.C. Unless otherwise stated, all criteria express the maximum not to be exceeded at any time. In some cases, there are separate or additional limits, which apply independently of the maximum not to be exceeded at any time. For example, annual average (denoted as "annual avg." in the Table) means the maximum concentration at average annual flow conditions (see subsection 62-302.200(2), F.A.C.). Numeric interpretations of the narrative nutrient criterion in paragraph 62-302.530 (47)(b), F.A.C., shall be expressed as spatial averages and applied over a spatial area consistent with their derivation. In applying the water quality standards, the Department shall take into account the variability occurring in nature and shall recognize the statistical variability inherent in sampling and testing procedures. The Department's assessment methodology, set forth in Chapter 62-303, F.A.C., accounts for such natural and statistical variability when used to assess ambient waters pursuant to sections 305(b) and 303(d) of the Federal Clean Water Act.

(1) through (70) No change.

Rulemaking Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804 FS. Law Implemented 403.021, 403.061, 403.087, 403.088, 403.141, 403.161, 403.182, 403.502, 403.702, 403.708 FS. History–New 1-28-90, Formerly 17-3.065, Amended 2-13-92, 6-17-92, Formerly 17-302.540, 17-302.550, 17-302.560, 17-302.570, 17-302.580, Amended 4-25-93, Formerly 17-302.530, Amended 1-23-95, 1-15-96, 5-15-02, 7-19-04, 12-7-06, 8-5-10, - -11.

62-302.531 Numeric Interpretations of Narrative Nutrient Criteria.

(1) The narrative water quality criteria for nutrients in paragraphs 62-302.530(47)(a) and (b), F.A.C., applies to all Class I, Class II, and Class III waters.

(2) The narrative water quality criterion for nutrients in paragraph 62-302.530(47)(b), F.A.C., shall be numerically interpreted for both nutrients and nutrient response variables in a hierarchical manner as follows:

(a) Where a site specific numeric interpretation of the criterion in paragraph 62-302.530(47)(b), F.A.C., has been established by the Department, this numeric interpretation shall be the primary interpretation. If there are multiple interpretations of the narrative criterion for a waterbody, the most recent interpretation established by the Department shall apply. A list of the site specific numeric interpretations of paragraph 62-302.530(47)(b), F.A.C., may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

1. The primary site specific interpretations are as follows:

a. Total Maximum Daily Loads (TMDLs) adopted under Chapter 62-304, F.A.C., that interpret the narrative water quality criterion for nutrients in paragraph 62-302.530(47)(b), F.A.C., for one or more nutrients or nutrient response variables;

b. Site specific alternative criteria (SSAC) for one or more nutrients or nutrient response variables as established under Rule 62-302.800, F.A.C.;

c. Estuary-specific numeric interpretations of the narrative nutrient criterion established in Rule 62-302.532, F.A.C.; or

d. Other site specific interpretations for one or more nutrients or nutrient response variables that are formally established by rule or final order by the Department, such as a Reasonable Assurance Demonstration pursuant to

Rule 62-303.600, F.A.C., or Level II Water Quality Based Effluent Limitations (WQBEL) established pursuant to Rule 62-650.500, F.A.C. To be recognized as the applicable site specific numeric interpretation of the narrative nutrient criterion, the interpretation must establish the total allowable load or ambient concentration for at least one nutrient that results in attainment of the applicable nutrient response variable that represents achievement of the narrative nutrient criterion for the waterbody. A site specific interpretation is also allowable where there are documented adverse biological effects using one or more Biological Health Assessments, if information on chlorophyll *a* levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition indicate there are no imbalances in flora and a stressor identification study demonstrates that the adverse biological effects are not due to nutrients.

2. For the primary site specific interpretations in subparagraph 62-302.531(2)(a)1., F.A.C., the notice of rulemaking or other public notice shall state that the Department is establishing a site specific interpretation for the receiving waterbody, and offer an opportunity for a public meeting and public comment.

(b) If site specific numeric interpretations, as described in paragraph 62-302.531(2)(a), F.A.C., above, have not been established for a waterbody, but there is an established, quantifiable cause-and-effect relationship between one or more nutrients and nutrient response variables linked to a value that protects against an imbalance in the natural populations of the aquatic flora or fauna, then the numeric values for the nutrients or nutrient response variables, set forth in this paragraph (2)(b), shall be the applicable interpretations. Absent a numeric interpretation as established in paragraph 62-302.531(2)(a), F.A.C., site specific numeric interpretations are established as follows:

1. For lakes, the applicable numeric interpretations of the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., for chlorophyll *a* are shown in the table below. The applicable interpretations for TN and TP will vary on an annual basis, depending on the availability of chlorophyll *a* data and the concentrations of nutrients and chlorophyll *a* in the lake, as described below. The applicable numeric interpretations for TN, TP, and chlorophyll *a* shall not be exceeded more than once in any consecutive three year period.

a. If there are sufficient data to calculate the annual geometric mean chlorophyll *a* and the mean does not exceed the chlorophyll *a* value for the lake type in the table below, then the TN and TP numeric interpretations for that calendar year shall be the annual geometric means of lake TN and TP samples, subject to the minimum and maximum limits in the table below. However, for lakes with color > 40 PCU in the West Central Nutrient Watershed Region, the maximum TP limit shall be the 0.49 mg/L TP streams threshold for the region; or

b. If there are insufficient data to calculate the annual geometric mean chlorophyll *a* for a given year or the annual geometric mean chlorophyll *a* exceeds the values in the table below for the lake type, then the applicable numeric interpretations for TN and TP shall be the minimum values in the table below.

Long Term Geometric Mean Lake Color and Alkalinity	Annual Geometric Mean Chlorophyll *a*	Minimum calculated numeric interpretation		Maximum calculated numeric interpretation	
		Annual Geometric Mean Total Phosphorus	Annual Geometric Mean Total Nitrogen	Annual Geometric Mean Total Phosphorus	Annual Geometric Mean Total Nitrogen
≥ 40 Platinum Cobalt Units	20 μg/L	0.05 mg/L	1.27 mg/L	0.16 mg/L[1]	2.23 mg/L
≤ 40 Platinum Cobalt Units and > 20 mg/L $CaCO_3$	20 μg/L	0.03 mg/L	1.05 mg/L	0.09 mg/L[1]	1.91 mg/L
≤ 40 Platinum Cobalt Units and ≤ 20 mg/L $CaCO_3$	6 μg/L	0.01 mg/L	0.51 mg/L	0.03 mg/L[1]	0.93 mg/L

[1] For lakes with color > 40 PCU in the West Central Nutrient Watershed Region, the maximum TP limit shall be the 0.49 mg/L TP streams threshold for the region.

c. For the purpose of subparagraph 62-302.531(2)(b)1., F.A.C., color shall be assessed as true color and shall be free from turbidity. Lake color and alkalinity shall be the long-term geometric mean, based on a minimum of ten data points over at least three years with at least one data point in each year. If insufficient alkalinity data are available, long-term geometric mean specific conductance values shall be used, with a value of <100 micromhos/cm used to estimate the 20 mg/L $CaCO_3$ alkalinity concentration until such time that alkalinity data are available.

2. For spring vents, the applicable numeric interpretation of the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., is 0.35 mg/L of nitrate-nitrite ($NO_3 + NO_2$) as an annual geometric mean, not to be exceeded more than once in any three calendar year period.

(c) For streams, if a site specific interpretation pursuant to paragraph 62-302.531(2)(a) or (2)(b), F.A.C., has not been established, biological information shall be used to interpret the narrative nutrient criterion in combination with Nutrient Thresholds. The narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., shall be interpreted as being achieved in a stream segment where information on chlorophyll *a* levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition indicates there are no imbalances in flora or fauna, and either:

1. the average score of at least two temporally independent SCIs performed at representative locations and times is 40 or higher, with neither of the two most recent SCI scores less than 35, or

2. the nutrient thresholds set forth in the table below are achieved.

Nutrient Watershed Region	Total Phosphorus Nutrient Threshold[1]	Total Nitrogen Nutrient Threshold[1]
Panhandle West	0.06 mg/L	0.67 mg/L
Panhandle East	0.18 mg/L	1.03 mg/L
North Central	0.30 mg/L	1.87 mg/L
Peninsular	0.12 mg/L	1.54 mg/L
West Central	0.49 mg/L	1.65 mg/L
South Florida	No numeric nutrient threshold. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.	No numeric nutrient threshold. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.

[1]These values are annual geometric mean concentrations not to be exceeded more than once in any three calendar year period.

(3) Except for data used to establish historical chlorophyll *a* levels, chlorophyll *a* data assessed under this Chapter shall be measured according to the DEP document titled "Applicability of Chlorophyll *a* Methods" (DEP-SAS-002/10), dated October 24, 2011, which is incorporated by reference herein. Copies of the chlorophyll *a* document may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400. Chlorophyll *a* data collected after [effective date] shall be corrected for or free from the interference of phaeophytin.

(4) The loading of nutrients from a waterbody shall be limited as necessary to provide for the attainment and maintenance of water quality standards in downstream waters.

(5) To qualify as temporally independent samples, each SCI shall be conducted at least three months apart. SCIs collected at the same location less than three months apart shall be considered one sample, with the mean value used to represent the sampling period.

(6) To calculate an annual geometric mean for TN, TP, or chlorophyll *a*, there shall be at least four temporally-independent samples per year with at least one sample taken between May 1 and September 30 and at least one sample taken during the other months of the calendar year. To be treated as temporally-independent, samples must be taken at least one week apart.

(7) The numeric interpretation of the narrative nutrient criterion shall be applied over a spatial area consistent with its derivation.

(a) For numeric interpretations based on paragraph 62-302.531(2)(a), F.A.C., the spatial application of the numeric interpretation is as defined in the associated order or rule.

(b) For lakes covered under subparagraph 62-302.531(2)(b)1., F.A.C., the numeric interpretation shall be applied as a lake-wide or lake segment-wide average.

(c) For spring vents covered under subparagraph 62-302.531(2)(b)2., F.A.C., the numeric interpretation shall be applied in the surface water at or above the spring vent.

(d) For streams covered under paragraph 62-302.531(2)(c), F.A.C., the spatial application of the numeric interpretation shall be determined by relative stream homogeneity and shall be applied to waterbody segments or aggregations of segments as determined by the site-specific considerations.

(8) Load-based or percent reduction-based nutrient TMDLs or Level II Water Quality Based Effluent Limitations (WQBELs) pursuant to Chapter 62-650, F.A.C., do not need to be converted into concentration-based nutrient TMDLs or WQBELs to be used as the basis for the numeric interpretation of the narrative criterion. For percent reduction-based nutrient TMDLs, the associated allowable load or concentration is the numeric interpretation of the narrative criterion for the waterbody.

(9) The Commission adopts rules 62-302.200(4), .200(16)-(17), .200(22)-(25), .200(35)-(37), .200(39), 62-302.531, and 62-302.532(3), F.A.C., to ensure, as a matter of policy, that nutrient pollution is addressed in Florida in an integrated, comprehensive and consistent manner. Accordingly, these rules shall be effective only if EPA approves these rules in their entirety, concludes rulemaking that removes federal numeric nutrient criteria in response to the approval, and determines, in accordance with 33 U.S.C. § 1313(c)(3), that these rules sufficiently address EPA's January 14, 2009 determination. If any provision of these rules is determined to be invalid by EPA or in any administrative or judicial proceeding, then the entirety of these rules shall not be implemented.

Rulemaking Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804 FS. Law Implemented 403.021, 403.061, 403.067, 403.087, 403.088, 403.141, 403.161, 403.182, 403.502, 403.702, 403.708 FS. History – New - -11.

62-302.532 Estuary-Specific Numeric Interpretations of the Narrative Nutrient Criterion.

(1) Estuary-specific numeric interpretations of the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., are in the table below. The concentration-based estuary interpretations are open water, area-wide averages. The interpretations expressed as load per million cubic meters of freshwater inflow are the total load of that nutrient to the estuary divided by the total volume of freshwater inflow to that estuary.

Estuary	Total Phosphorus	Total Nitrogen	Chlorophyll *a*
(a) Clearwater Harbor/St. Joseph Sound	Annual geometric mean values not to be exceeded more than once in a three year period. Nutrient and nutrient response values do not apply to tidally influenced areas that fluctuate between predominantly marine and predominantly fresh waters during typical climatic and hydrologic conditions.		
1. St.Joseph Sound	0.05 mg/L	0.66 mg/L	3.1 µg/L
2. Clearwater North	0.05 mg/L	0.61 mg/L	5.4 µg/L
3. Clearwater South	0.06 mg/L	0.58 mg/L	7.6 µg/L
(b) Tampa Bay	Annual totals for nutrients and annual arithmetic means for chlorophyll a, not to be exceeded more than once in a three year period. Nutrient and nutrient response values do not apply to tidally influenced areas that fluctuate between predominantly marine and predominantly fresh waters during typical climatic and hydrologic conditions.		
1. Old Tampa Bay	0.23 tons/million cubic meters of water	1.08 tons/million cubic meters of water	9.3 µg/L
2. Hillsborough Bay	1.28 tons/million cubic meters of water	1.62 tons/million cubic meters of water	15.0 µg/L
3. Middle Tampa Bay	0.24 tons/million cubic meters of water	1.24 tons/million cubic meters of water	8.5 µg/L
4. Lower Tampa Bay	0.14 tons/million cubic meters of	0.97 tons/million cubic meters of	5.1 µg/L

	water	water	
5. Boca Ciega North	0.18 tons/million cubic meters of water	1.54 tons/million cubic meters of water	8.3 µg/L
6. Boca Ciega South	0.06 tons/million cubic meters of water	0.97 tons/million cubic meters of water	6.3 µg/L
7. Terra Ceia Bay	0.14 tons/million cubic meters of water	1.10 tons/million cubic meters of water	8.7 µg/L
8. Manatee River Estuary	0.37 tons/million cubic meters of water	1.80 tons/million cubic meters of water	8.8 µg/L
(c) Sarasota Bay	Annual geometric mean values for nutrients and annual arithmetic means for chlorophyll a, not to be exceeded more than once in a three year period. Nutrient and nutrient response values do not apply to tidally influenced areas that fluctuate between predominantly marine and predominantly fresh waters during typical climatic and hydrologic conditions.		
1. Palma Sola Bay	0.26 mg/L	0.93 mg/L	11.8 µg/L
2. Sarasota Bay	0.19 mg/L	See paragraph 62-302.532(3)(i), F.A.C.	6.1 µg/L
3. Roberts Bay	0.23 mg/L	0.54 mg/L	11.0 µg/L
4. Little Sarasota Bay	0.21 mg/L	0.60 mg/L	10.4 µg/L
5. Blackburn Bay	0.21 mg/L	0.43 mg/L	8.2 µg/L
(d) Charlotte Harbor/Estero Bay	Annual arithmetic mean values for nutrients and annual arithmetic means for chlorophyll a, not to be exceeded more than once in a three year period. Nutrient and nutrient response values do not apply to tidally influenced areas that fluctuate between predominantly marine and predominantly fresh waters during typical climatic and hydrologic conditions.		
1. Dona and Roberts Bay	0.18 mg/L	0.42 mg/L	4.9 µg/L
2. Upper Lemon Bay	0.26 mg/L	0.56 mg/L	8.9 µg/L
3. Lower Lemon Bay	0.17 mg/L	0.62 mg/L	6.1 µg/L
4. Charlotte Harbor Proper	0.19 mg/L	0.67 mg/L	6.1 µg/L
5. Pine Island Sound	0.06 mg/L	0.57 mg/L	6.5 µg/L
6. San Carlos Bay	0.07 mg/L	0.56 mg/L	3.5 µg/L
7. Tidal Myakka River	0.31 mg/L	1.02 mg/L	11.7 µg/L
8. Matlacha Pass	0.08 mg/L	0.58 mg/L	6.1 µg/L
9.Estero Bay (including Tidal Imperial River)	0.07 mg/L	0.63 mg/L	5.9 µg/L
(e) Tidal Cocohatchee River/Ten Thousand Islands	Annual geometric means that shall not be exceeded more than once in a three year period		
1. Tidal Cocohatchee River	0.057 mg/L	0.47 mg/L	5.8 µg/L
2. Collier Inshore	0.032 mg/L	0.25 mg/L	3.1 µg/L
3. Rookery Bay/Marco Island	0.046 mg/L	0.30 mg/L	4.9 µg/L
4. Naples Bay	0.045 mg/L	0.57mg/L	4.3 µg/L
5. Inner Gulf Shelf	0.018 mg/L	0.29 mg/L	1.6 µg/L
6. Middle Gulf Shelf	0.016 mg/L	0.26 mg/L	1.4 µg/L
7. Outer Gulf Shelf	0.013 mg/L	0.22 mg/L	1.0 µg/L
8. Blackwater River	0.053 mg/L	0.41 mg/L	4.1 µg/L
9. Coastal Transition Zone	0.034 mg/L	0.61 mg/L	3.9 µg/L

10. Gulf Islands	0.038 mg/L	0.44 mg/L	3.4 µg/L
11. Inner Waterway	0.033 mg/L	0.69 mg/L	5.2 µg/L
12. Mangrove Rivers	0.021 mg/L	0.71 mg/L	3.7 µg/L
13. Ponce de Leon	0.024 mg/L	0.52 mg/L	3.0 µg/L
14. Shark River Mouth	0.022 mg/L	0.75 mg/L	2.2 µg/L
15. Whitewater Bay	0.026 mg/L	0.82 mg/L	4.1 µg/L
(f) Florida Bay	Annual geometric means that shall not be exceeded more than once in a three year period		
1. Central Florida Bay	0.019 mg/L	0.99 mg/L	2.2 µg/L
2. Coastal Lakes	0.045 mg/L	1.29 mg/L	9.3 µg/L
3. East Central Florida Bay	0.007 mg/L	0.65 mg/L	0.4 µg/L
4. Northern Florida Bay	0.010 mg/L	0.68 mg/L	0.8 µg/L
5. Southern Florida Bay	0.009 mg/L	0.64 mg/L	0.8 µg/L
6. Western Florida Bay	0.015 mg/L	0.37 mg/L	1.4 µg/L
(g) Florida Keys	Annual geometric means that shall not be exceeded more than once in a three year period		
1. Back Bay	0.009 mg/L	0.25 mg/L	0.3 µg/L
2. Backshelf	0.011 mg/L	0.23 mg/L	0.7 µg/L
3. Lower Keys	0.008 mg/L	0.21 mg/L	0.3 µg/L
4. Marquesas	0.008 mg/L	0.21 mg/L	0.6 µg/L
5. Middle Keys	0.007 mg/L	0.22 mg/L	0.3 µg/L
6. Oceanside	0.007 mg/L	0.17 mg/L	0.3 µg/L
7. Upper Keys	0.007 mg/L	0.18 mg/L	0.2 µg/L
(h) Biscayne Bay	Annual geometric means that shall not be exceeded more than once in a three year period		
1. Card Sound	0.008 mg/L	0.33 mg/L	0.5 µg/L
2. Manatee Bay – Barnes Sound	0.007 mg/L	0.58 mg/L	0.4 µg/L
3. North Central Inshore	0.007 mg/L	0.31 mg/L	0.5 µg/L
4. North Central Outer-Bay	0.008 mg/L	0.28 mg/L	0.7 µg/L
5. Northern North Bay	0.012 mg/L	0.30 mg/L	1.7 µg/L
6. South Central Inshore	0.007 mg/L	0.48 mg/L	0.4 µg/L
7. South Central Mid-Bay	0.007 mg/L	0.35 mg/L	0.2 µg/L
8. South Central Outer-Bay	0.006 mg/L	0.24 mg/L	0.2 µg/L
9. Southern North Bay	0.010 mg/L	0.29 mg/L	1.1 µg/L

(i) Sarasota Bay	For TN, the annual geometric mean target is calculated from monthly arithmetic mean color by region and season. Annual geometric means that shall not be exceeded more than once in a three year period. The Sarasota Bay regions are defined as north (Manatee County) and south (Sarasota County). The wet season for Sarasota Bay is defined as July through October and the dry season is defined as all other months of the year. The seasonal region targets are calculated using monthly color data and shall be calculated as follows: NW_i=Ln[(13.35-(0.32*CN_i))/3.58] ND_i=Ln[(10.39-(0.32*CN_i))/3.58] SW_i=Ln[(8.51-(0.32*CS_i)/3.58] SD_i=Ln[(5.55-(0.32*CS_i))/3.58] Where, NW_i is the TN target for i^{th} month calculated for the north region during the wet season ND_i is the TN target for i^{th} month calculated for the north region during the dry

	season SW_i is the TN target for i^{th} month calculated for the south region during the wet season SW_i is the TN target for i^{th} month calculated for the south region during the dry season CN_i is the arithmetic mean color during the i^{th} month within the north region CS_i is the arithmetic mean color during the i^{th} month within the south region The annual TN target is calculated as the geometric mean of all monthly regional and season targets as follows: $e^{\sum_i^{12}\left(\frac{NWi+NDi+SWi+SDi}{24}\right)}$ Nutrient and nutrient response values do not apply to tidally influenced areas that fluctuate between predominantly marine and predominantly fresh waters during typical climatic and hydrologic conditions.

<table>
<tr><td rowspan="2">(j) Clam Bay (Collier County)</td><td colspan="2">No more than 10 percent of the individual Total Phosphorus (TP) or Total Nitrogen (TN) measurements shall exceed the respective TP Upper Limit or TN Upper Limit.</td></tr>
<tr><td>TP Upper Limit (mg/L) = $e^{(-1.06256-0.0000328465*Conductivity\ (\mu S))}$</td><td>TN Upper Limit (mg/L) = 2.3601 – 0.0000268325*Conductivity (µS)</td></tr>
</table>

(2) Estuarine and marine areas are delineated in the eight maps of the Florida Marine Nutrient Regions, all dated October 19, 2011, which are incorporated by reference. Copies of these maps may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(3) The Department shall establish by rule or final order estuary specific numeric interpretations of the narrative nutrient criteria for TN and TP for Perdido Bay, Pensacola Bay (including Escambia Bay), St. Andrews Bay, Choctawhatchee Bay, and Apalachicola Bay by June 30, 2013, subject to the provisions of Chapter 120, F.S. The Department shall establish by rule or final order the estuary specific numeric interpretation of the narrative nutrient criteria for TN and TP for the remaining estuaries by June 30, 2015, subject to the provisions of Chapter 120, F.S.

Rulemaking Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804 FS. Law Implemented 403.021, 403.061, 403.087, 403.088, 403.141, 403.161, 403.182, 403.502, 403.702, 403.708 FS. History – New - -11.

62-302.800 Site Specific Alternative Criteria.

(1) Type I Site Specific Alternative Criteria: A waterbody ~~water body~~, or portion thereof, may not meet a particular ambient water quality criterion specified for its classification, due to natural background conditions or man-induced conditions which cannot be controlled or abated. In such circumstances, and upon petition by an affected person or upon the initiation by the Department, the Secretary may establish a site specific alternative water quality criterion when an affirmative demonstration is made that an alternative criterion is more appropriate for a specified portion of waters of the state. Public notice and an opportunity for public hearing shall be provided prior to issuing any order establishing alternative criteria.

(a) The affirmative demonstration required by this section shall mean a documented showing that the proposed alternative criteria would exist due to natural background conditions or man-induced conditions which cannot be controlled or abated. Such demonstration shall be based upon relevant factors which include:

1. A description of the physical nature of the specified waterbody ~~water body~~ and the water pollution sources affecting the criterion to be altered.

2. through 4. No change.

(b) No change.

(2) Type II Site Specific Alternative Criteria: In accordance with the procedures set forth below, affected persons may petition the Department, or the Department may initiate rulemaking, to adopt an alternative water quality criterion for a specific waterbody ~~water body~~, or portion thereof, on the basis of site-specific reasons other than those set forth above in subsection 62-302.800(1), F.A.C. The Department shall process any such petition as follows:

(a) through (c)1. No change.

2. In making the demonstration required by this paragraph (c), the petition shall include an assessment of aquatic toxicity, except on a showing that no such assessment is relevant to the particular criterion. The assessment of aquatic toxicity shall show that physical and chemical conditions at the site alter the toxicity or bioavailability of the compound in question and shall meet the requirements and follow the Indicator Species procedure set forth in *Water Quality Standards Handbook* (December 1983), a publication of the United States Environmental Protection Agency, incorporated here by reference. If, however, the Indicator Species Procedure is not applicable to the proposed site-specific alternative criterion, the petitioner may propose another generally accepted scientific method or procedure to demonstrate with equal assurance that the alternative criterion will protect the aquatic life designated use of the waterbody ~~water body~~.

3. through 7. No change.

(d) The provisions of this subsection do not apply to criteria contained in Rule 62-302.500, F.A.C., or criteria that apply to:

1. Biological Integrity (subsection 62-302.530(10), F.A.C.).

2. B.O.D. (subsection 62-302.530(11), F.A.C.).

~~3. Nutrients.~~

3. ~~4.~~ Odor (subsections 62-302.500(1), 62-302.530(21), 62-302.530(48), and paragraphs 62-302.530 (49)(b) and 62-302.530(52)(a), F.A.C.).

4. ~~5.~~ Oils and Greases (subsection 62-302.530(49), F.A.C.).

5. ~~6.~~ Radioactive Substances (subsection 62-302.530(57), F.A.C.).

6. ~~7.~~ Substances in concentrations that injure, are chronically toxic to, or produce adverse physiological or behavioral response in humans, animals, or plants (subsection 62-302.530(61), F.A.C.).

7. ~~8.~~ Substances, other than nutrients, in concentrations that result in the dominance of nuisance species (subsection 62-302.200(20), F.A.C.).

8. ~~9.~~ Total Dissolved Gases (subsection 62-302.530(66), F.A.C.).

9. ~~10~~ No change.

(e) through (f) No change.

(3) Type III Site Specific Alternative Criteria (SSAC) for Nutrients: Upon petition by an affected person or upon initiation by the Department, the Department shall establish, by Secretarial Order, site specific numeric nutrient criteria when an affirmative demonstration is made that the proposed criteria achieve the narrative nutrient criteria in paragraph 62-302.530(47)(b), F.A.C., and are protective of downstream waters. Public notice and an opportunity for public hearing shall be provided prior to adopting any order establishing alternative criteria under this subsection.

(a) The Department shall establish a Type III SSAC if all of the following conditions are met:

1. The petitioner demonstrates that the waterbody achieves the narrative nutrient criteria in paragraph 62-302.530(47)(b), F.A.C.

a. For streams, such a demonstration shall require:

i. information on chlorophyll *a* levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition indicating that there is not an imbalance in flora, and

ii. at least two temporally independent SCIs, conducted at a minimum of two spatially-independent stations representative of the waterbody or water segment for which a SSAC is requested, with an average score of 40 or higher, with neither of the two most recent SCI scores less than 35.

b. For lakes, such a demonstration shall require:

i. information on chlorophyll *a* levels, algal mats or blooms indicating that there is not an imbalance in flora or fauna, and

ii. at least two temporally independent LVIs, with an average score of 43 or above.

c. SCIs and LVIs collected at the same location less than three months apart shall be considered to be one sample, with the mean value used to represent the sampling period. SCIs and LVIs shall be conducted during the water quality sampling period described in subparagraph 62-302.800(3)(a)2, F.A.C. There shall be a minimum of two assessments per station or lake, with at least one assessment conducted during the final year.

2. The petitioner provides sufficient data to characterize water quality conditions, including temporal variability, that are representative of the biological data used to support the SSAC. The water quality data shall be collected in the same waterbody segment as the biological monitoring stations and at a frequency and duration consistent with the study design concepts described in the document titled *Development of Type III Site Specific Alternative Criteria (SSAC) for Nutrients* (DEP-SAS-004/11), dated October 24, 2011, which is incorporated by reference herein. Copies of this document may be obtained from the Department's internet site at http://www.dep.state.fl.us/water/wqssp/swq-docs.htm or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400. Water quality data associated with extreme climatic conditions, such as floods, droughts, and hurricanes, shall be excluded from the analysis.

3. Demonstration of downstream protection by one of the following methods:

a. Downstream waters are attaining water quality standards related to nutrient conditions pursuant to Chapter 62-303, F.A.C.; or

b. If the downstream waters do not attain water quality standards related to nutrient conditions:

i. The nutrients delivered by the waterbody subject to the Type III SSAC meet the allocations of a downstream TMDL; or

ii. The nutrients delivered by the waterbody are shown to provide for the attainment and maintenance of water quality standards in downstream waters.

(b) The SSAC shall be established at a level representative of nutrient loads or concentrations that have been demonstrated to be protective of the designated use by maintaining balanced, natural populations of aquatic flora and fauna. This demonstration shall take into account natural variability by using statistical methods appropriate to the data set, as described in *Development of Type III Site Specific Alternative Criteria (SSAC) for Nutrients* (DEP-SAS-004/11).

(3) through (4) renumber (4) through (5) No change.

(6) ~~(5)~~ Type II s~~S~~ite specific alternative criteria apply to the water bodies, or portions of the water bodies, listed below. For dissolved oxygen site specific alternative criteria, normal daily and seasonal fluctuations above the levels listed in the table below shall be maintained. For site specific alternative criteria with seasonal limits, the generally applicable criteria in Rule 62-302.530, F.A.C., apply at other times of the year.

(a) through (d) No change.

Rulemaking Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804, 403.805 FS. Law Implemented 403.021, 403.061, 403.087, 403.088, 403.141, 403.161, 403.502 FS. History–Formerly 17-3.05(4), Amended 3-1-79, 10-2-80, 2-1-83, Formerly 17-3.031, Amended 6-17-92, Formerly 17-302.800, Amended 5-15-02, 1-9-06, 6-28-06, 12-7-06, 8-5-07, 8-5-10, - -11.

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Part III

Environmental Protection Agency

40 CFR Part 131

Water Quality Standards for the State of Florida's Lakes and Flowing Waters; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 131

[EPA–HQ–OW–2009–0596; FRL–9228–7]

RIN 2040–AF11

Water Quality Standards for the State of Florida's Lakes and Flowing Waters

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA or Agency) is promulgating numeric water quality criteria for nitrogen/phosphorus pollution to protect aquatic life in lakes, flowing waters, and springs within the State of Florida. These criteria apply to Florida waters that are designated as Class I or Class III waters in order to implement the State's narrative nutrient provision at Subsection 62–302–530(47)(b), Florida Administrative Code (F.A.C.), which provides that "[i]n no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna."

DATES: This final rule is effective March 6, 2012, except for 40 CFR 131.43(e), which is effective February 4, 2011.

ADDRESSES: An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.regulations.gov* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. For additional information about EPA's public docket, visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.* Although listed in the index, some information is not publicly available, *i.e.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyright material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the Docket Facility. The Office of Water (OW) Docket Center is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The OW Docket Center telephone number is 202–566–1744 and the Docket address is OW Docket, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20004. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744.

FOR FURTHER INFORMATION CONTACT: For information concerning this rulemaking, contact Danielle Salvaterra, U.S. EPA Headquarters, Office of Water, Mailcode: 4305T, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; telephone number: 202–564–1649; fax number: 202–566–9981; e-mail address: *salvaterra.danielle@epa.gov.*

SUPPLEMENTARY INFORMATION: This supplementary information section is organized as follows:

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I. General Information

A. Executive Summary

Florida is known for its abundant and aesthetically beautiful natural resources, in particular its water resources. Florida's water resources are very important to its economy, for example, its $6.5 billion fishing industry.[1] However, nitrogen/phosphorus pollution has contributed to severe water quality degradation in the State of Florida. Based upon waters assessed and reported by the Florida Department of Environmental Protection (FDEP) in its *2008 Integrated Water Quality Assessment for Florida,* approximately 1,049 miles of rivers and streams (about 5% of total assessed streams), 349,248 acres of lakes (about 23% of total assessed lakes), and 902 square miles of estuaries (about 24% of total assessed estuaries) are known to be impaired for nutrients by the State.[2]

The information presented in FDEP's latest water quality assessment report, the *2010 Integrated Water Quality Assessment for Florida,* documents increased identification of assessed waters that are impaired due to nutrients. In the FDEP *2010 Integrated Water Quality Assessment for Florida,* approximately 1,918 miles of rivers and streams (about 8% of assessed river and stream miles), 378,435 acres of lakes (about 26% of assessed lake acres), and 569 square miles of estuaries[3] (about 21% of assessed square miles of estuaries)[4] are identified as impaired by

[1] Florida Fish and Wildlife Conservation Commission. 2010. *The economic impact of freshwater fishing in Florida. http://www.myfwc.com/CONSERVATION/Conservation_ValueofConservation_EconFreshwaterImpact.htm.* Accessed August 2010.

[2] Florida Department of Environmental Protection (FDEP). 2008. Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update.

[3] The estimated miles for estuaries were recalculated in 2010. FDEP used revised GIS techniques to calculate mileages and corrected estuary waterbody descriptions by removing land drainage areas that had been included in some descriptions, which reduced the estimates of total estuarine water area for Florida waters generally, as well as for some of the estuary classifications in the 2010 report.

[4] For the Integrated Water Quality Assessment for Florida: 2010 305(b) Report and 303(d) List Update, Florida assessed about 3,637 additional miles of streams, about 24,833 fewer acres of lakes, and about 1,065 fewer square miles of estuaries than the 2008 Integrated Report. In addition, Florida reevaluated the WBID segment boundaries using "improved GIS techniques" for mapping. The most significant result of the major change in mapping was the reduction of assessed estuarine area from 3,726 to 2,661 square miles. The net result to the impaired waters for estuaries is that the percent of

nutrients.[5] The challenge of nitrogen/phosphorus pollution has been an ongoing focus for FDEP. Over the past decade or more, FDEP reports that it has spent over 20 million dollars collecting and analyzing data related to concentrations and impacts of nitrogen/phosphorus pollution in the State.[6] Despite FDEP's intensive efforts to diagnose and evaluate nitrogen/phosphorus pollution, substantial and widespread water quality degradation from nitrogen/phosphorus over-enrichment has continued and remains a significant problem.

On January 14, 2009, EPA determined under Clean Water Act (CWA) section 303(c)(4)(B) that new or revised water quality standards (WQS) in the form of numeric water quality criteria are necessary to protect the designated uses from nitrogen/phosphorus pollution that Florida has set for its Class I and Class III waters. The Agency considered (1) the State's documented unique and threatened ecosystems, (2) the large number of impaired waters due to existing nitrogen/phosphorus pollution, and (3) the challenge associated with growing nitrogen/phosphorus pollution associated with expanding urbanization, continued agricultural development, and a significantly increasing population that the U.S. Census estimates is expected to grow over 75% between 2000 and 2030.[7] EPA also reviewed the State's regulatory accountability system, which represents a synthesis of both technology-based standards and point source control authority, as well as authority to establish enforceable controls for nonpoint source activities.

A significant challenge faced by Florida's water quality program is its dependence and current reliance upon an approach involving resource-intensive and time-consuming site-by-site data collection and analysis to interpret non-numeric narrative criteria. This approach is used to make water quality impairment determinations under CWA section 303(d), to set appropriately protective numeric nitrogen and phosphorus pollution targets to guide restoration of impaired waters, and to establish numeric nitrogen and phosphorus goals to ensure effective protection and maintenance of non-impaired waters. EPA determined that Florida's reliance on a case-by-case interpretation of its narrative criterion in implementing an otherwise comprehensive water quality framework of enforceable accountability mechanisms was insufficient to ensure protection of applicable designated uses under Subsection 62–302.530(47)(b), F.A.C., which, as noted above, provides "[i]n no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna."

In accordance with the terms of EPA's January 14, 2009 determination, an August 2009 Consent Decree, and June 7, 2010 and October 27, 2010 revisions to that Consent Decree, which are discussed in more detail in Section II.D, EPA is promulgating and establishing final numeric criteria for lakes and springs throughout Florida, and flowing waters (*e.g.*, rivers, streams, canals, *etc.*) located outside of the South Florida Region.[8]

Regarding numeric criteria for streams, the Agency conducted a detailed technical evaluation of the substantial amount of sampling, monitoring and associated water quality analytic data available on Florida streams together with a significant amount of related scientific analysis. EPA concluded that reliance on a reference-based methodology was a strong and scientifically sound approach for deriving numeric criteria, in the form of total nitrogen (TN) and total phosphorus (TP) concentration values for flowing waters including streams and rivers. This information is presented in more detail in Section III.B below.

For lakes, EPA is promulgating a classification approach using color and alkalinity based upon substantial data that show that lake color and alkalinity are important predictors of the degree to which TN and TP concentrations result in a biological response such as elevated chlorophyll *a* levels. EPA found that correlations between nitrogen/phosphorus and biological response parameters in the different types of lakes in Florida were specific, significant, and documentable, and when considered in combination with additional lines of evidence, support a stressor-response approach to criteria development for Florida's lakes. EPA's results show a significant relationship between concentrations of nitrogen and phosphorus in lakes and algal growth. The Agency is also promulgating an accompanying supplementary analytical approach that the State can use to adjust TN and TP criteria within a certain range for individual lakes where sufficient data on long-term ambient chlorophyll *a*, TN, and TP levels are available to demonstrate that protective chlorophyll *a* criterion for a specific lake will still be maintained and attainment of the designated use will be assured. This information is presented in more detail in Section III.C below.

EPA also evaluated what downstream protection criteria for streams that flow into lakes is necessary for assuring the protection of downstream lake water quality pursuant to the provisions of 40 CFR 130.10(b), which requires that water quality standards (WQS) must provide for the attainment and maintenance of the WQS of downstream waters. EPA examined a variety of lake modeling techniques and data to ensure protection of aquatic life in downstream lakes that have streams flowing into them. Accordingly, this final rule includes a tiered approach to adjust instream TP and TN criteria for flowing waters to ensure protection of downstream lakes. This approach is detailed in Section III.C(2)(f) below.[9]

Regarding numeric criteria for springs, EPA is promulgating a nitrate+nitrite criterion for springs based on stressor-response relationships that are based on laboratory data and field evaluations that document the response of nuisance [10] algae and periphyton growth to nitrate+nitrite concentrations in springs. This criterion is explained in more detail in Section III.D below.

Finally, EPA is promulgating in this notice an approach to authorize and allow derivation of Federal site-specific alternative criteria (SSAC) based upon EPA review and approval of applicant submissions of scientifically defensible

assessed estuaries impaired remains about the same in 2008 (24%) as in 2010 (21%).

[5] FDEP. 2010. Integrated Water Quality Assessment for Florida: 2010 305(b) Report and 303(d) List Update.

[6] FDEP. 2009. Florida Numeric Nutrient Criteria History and Status. *http://www.dep.state.fl.us/water/wqssp/nutrients/docs/fl-nnc-summary-100109.pdf.* Accessed September 2010.

[7] U.S. Census Bureau, Population Division, Interim State Population Projections, 2005. *http://www.census.gov/population/projections/SummaryTabA1.pdf.*

[8] For purposes of this rule, EPA has distinguished South Florida as those areas south of Lake Okeechobee and the Caloosahatchee River watershed to the west of Lake Okeechobee and the St. Lucie watershed to the east of Lake Okeechobee, hereinafter referred to as the South Florida Region. Numeric criteria applicable to flowing waters in the South Florida Region will be addressed in the second phase of EPA's rulemaking regarding the establishment of estuarine and coastal numeric criteria. (Please refer to Section I.B for a discussion of the water bodies affected by this rule).

[9] As provided by the terms of the June 7, 2010 amended Consent Decree, downstream protection values for estuaries and coastal waters will be addressed in the context of the second phase of this rulemaking process.

[10] Nuisance algae is best characterized by Subsection 62–302.200(17), F.A.C.: "Nuisance Species" shall mean species of flora or fauna whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, a designated use of those waters.

recalculations that meet the requirements of CWA section 303(c) and EPA's implementing regulations at 40 CFR part 131. Total maximum daily load (TMDL) targets submitted to EPA for consideration as new or revised WQS would be reviewed under this SSAC process. This approach is discussed in more detail in Section V.C below.

Throughout the development of this rulemaking, EPA has emphasized the importance of sound science and widespread input in developing numeric criteria. Stakeholders have reiterated that numeric criteria must be scientifically sound. As demonstrated by the extent and detail of scientific analysis explained below, EPA continues to strongly agree. Under the CWA and EPA's implementing regulations, numeric criteria must protect the designated use of a waterbody (as well as ensure protection of downstream uses) and must be based on sound scientific rationale. (*See* CWA section 303(c); 40 CFR 131.11). In Florida, EPA relied upon its published criteria development methodologies [11] and a substantial body of scientific analysis, documentation, and evaluation, much of it provided to EPA by FDEP. As discussed in more detail below, EPA believes that the final criteria in this rule meet requirements for designated use and downstream WQS protection under the CWA and that they are clearly based on sound and substantial data and analyses.

B. Which water bodies are affected by this rule?

The criteria in this final rulemaking apply to a group of inland waters of the United States within Florida. Specifically, as defined below, these criteria apply to lakes and springs throughout Florida, and flowing waters (*e.g.*, rivers, streams, canals, *etc.*) located outside of the South Florida Region. For purposes of this rule, EPA has distinguished South Florida as those areas south of Lake Okeechobee and the Caloosahatchee River watershed to the west of Lake Okeechobee and the St. Lucie watershed to the east of Lake Okeechobee, hereinafter referred to as the South Florida Region. In this section, EPA defines the water bodies affected by this rule with respect to the Clean Water Act, Florida Administrative Code, and geographic scope in Florida. Because this regulation applies to inland waters, EPA defines fresh water as it applies to the affected water bodies.

The CWA requires adoption of WQS for "navigable waters." CWA section 303(c)(2)(A). The CWA defines "navigable waters" to mean "the waters of the United States, including the territorial seas." CWA section 502(7). Whether a particular waterbody is a water of the United States is a waterbody-specific determination. Every waterbody that is a water of the United States requires WQS under the CWA. EPA is not aware of any waters of the United States in Florida that are currently exempted from the State's WQS. For any privately-owned water in Florida that is a water of the United States, the applicable numeric criteria for those types of waters would apply. This rule does not apply to waters for which the Miccosukee Tribe of Indians or Seminole Tribe of Indians has obtained Treatment in the Same Manner as a State status for Sections 303 and 401 of the CWA, pursuant to Section 518 of the CWA.

EPA's final rule defines "lakes and flowing waters" (a phrase that includes lakes, streams, and springs) to mean inland surface waters that have been classified as Class I (Potable Water Supplies) or Class III (Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife) water bodies pursuant to Section 62–302.400, F.A.C., which are predominantly fresh waters, excluding wetlands. Class I and Class III surface waters share water quality criteria established to "protect recreation and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife" pursuant to Subsection 62–302.400(4), F.A.C.[12]

Geographically, the regulation applies to all lakes and springs throughout Florida. EPA is not finalizing numeric criteria for Florida's streams or canals in south Florida at this time. As noted above, EPA has distinguished South Florida as those areas south of Lake Okeechobee and the Caloosahatchee River watershed to the west of Lake Okeechobee and the St. Lucie watershed to the east of Lake Okeechobee, hereinafter referred to as the South Florida Region. The Agency will propose criteria for south Florida flowing waters in conjunction with criteria for Florida's estuarine and coastal waters by November 14, 2011.

Consistent with Section 62–302.200, F.A.C., EPA's final rule defines "predominantly fresh waters" to mean surface waters in which the chloride concentration at the surface is less than 1,500 milligrams per liter (mg/L). Consistent with Section 62–302.200, F.A.C., EPA's final rule defines "surface water" to mean "water upon the surface of the earth, whether contained in bounds created naturally, artificially, or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the earth's surface." In this rulemaking, EPA is promulgating numeric criteria for the following waterbody types: lakes, streams, and springs. EPA's final rule also includes definitions for each of these waters. "Lake" means a slow-moving or standing body of freshwater that occupies an inland basin that is not a stream, spring, or wetland. "Stream" means a free-flowing, predominantly fresh surface water in a defined channel, and includes rivers, creeks, branches, canals, freshwater sloughs, and other similar water bodies. "Spring" means a site at which ground water flows through a natural opening in the ground onto the land surface or into a body of surface water. Consistent with Section 62–312.020, F.A.C., "canal" means a trench, the bottom of which is normally covered by water with the upper edges of its two sides normally above water.

C. What entities may be affected by this rule?

Citizens concerned with water quality in Florida may be interested in this rulemaking. Entities discharging nitrogen or phosphorus to lakes and flowing waters of Florida could be indirectly affected by this rulemaking because WQS are used in determining National Pollutant Discharge Elimination System (NPDES) permit limits. Categories and entities that may ultimately be affected include:

[11] USEPA. 2000a. *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs.* EPA–822–B–00–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC. USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams.* EPA–822–B–00–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[12] Class I waters also include an applicable nitrate limit of 10 mg/L and nitrite limit of 1 mg/L for the protection of human health in drinking water supplies. The nitrate limit applies at the entry point to the distribution system (*i.e.*, after any treatment); *see* Chapter 62–550, F.A.C., for additional details.

Category	Examples of potentially affected entities
Industry	Industries discharging pollutants to lakes and flowing waters in the State of Florida.
Municipalities	Publicly-owned treatment works discharging pollutants to lakes and flowing waters in the State of Florida.
Stormwater Management Districts	Entities responsible for managing stormwater runoff in Florida.

This table is not intended to be exhaustive, but rather provides a guide for entities that may be directly or indirectly affected by this action. This table lists the types of entities of which EPA is now aware that potentially could be affected by this action. Other types of entities not listed in the table, such as nonpoint source contributors to nitrogen/phosphorus pollution in Florida's waters may be affected through implementation of Florida's water quality standards program (*i.e.*, through Basin Management Action Plans (BMAPs)). Any parties or entities conducting activities within watersheds of the Florida waters covered by this rule, or who rely on, depend upon, influence, or contribute to the water quality of the lakes and flowing waters of Florida, may be affected by this rule. To determine whether your facility or activities may be affected by this action, you should carefully examine the language in 40 CFR 131.43, which is the final rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

D. How can I get copies of this document and other related information?

1. *Docket.* EPA has established an official public docket for this action under Docket Id. No. EPA–HQ–OW–2009–0596. The official public docket consists of the document specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include CBI or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the OW Docket, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20004. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is 202–566–2426. A reasonable fee will be charged for copies.

2. *Electronic Access.* You may access this **Federal Register** document electronically through the EPA Internet under the "Federal Register" listings at *http://www.epa.gov/fedrgstr/*.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.regulations.gov* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. For additional information about EPA's public docket, visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm*. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the Docket Facility identified in Section I.C(1).

II. Background

A. Nitrogen/Phosphorus Pollution

1. What is nitrogen/phosphorus pollution?

Excess loading of nitrogen and phosphorus compounds,[13] is one of the most prevalent causes of water quality impairment in the United States. Nitrogen/phosphorus pollution problems have been recognized for some time in the U.S., for example a 1969 report by the National Academy of Sciences [14] notes "[t]he pollution problem is critical because of increased population, industrial growth, intensification of agricultural production, river-basin development, recreational use of waters, and domestic and industrial exploitation of shore properties. Accelerated eutrophication causes changes in plant and animal life—changes that often interfere with use of water, detract from natural beauty, and reduce property values." Inputs of nitrogen and phosphorus lead to over-enrichment in many of the Nation's waters and constitute a widespread, persistent, and growing problem. Nitrogen/phosphorus pollution in fresh water systems can significantly impact aquatic life and long-term ecosystem health, diversity, and balance. More specifically, high nitrogen and phosphorus loadings result in harmful algal blooms (HABs), reduced spawning grounds and nursery habitats, fish kills, and oxygen-starved hypoxic or "dead" zones. Public health concerns related to nitrogen/phosphorus pollution include impaired surface and groundwater drinking water sources from high levels of nitrates, possible formation of disinfection byproducts in drinking water, and increased exposure to toxic microbes such as cyanobacteria.[15 16] Degradation of water bodies from nitrogen/phosphorus pollution can result in economic consequences. For example, given that fresh and salt water fishing in Florida are significant recreational and tourist attractions generating over six billion dollars annually,[17] changes in Florida's waters that degrade water quality to the point that sport fishing populations are affected, will also affect this important part of Florida's economy. Elevated nitrogen/phosphorus levels can occur locally in a stream or groundwater, or can accumulate much further downstream leading to degraded lakes, reservoirs, and estuaries where fish and aquatic life can no longer survive.

Excess nitrogen/phosphorus in water bodies comes from many sources, which can be grouped into five major categories: (1) Urban stormwater runoff—sources associated with urban land use and development, (2) municipal and industrial waste water discharges, (3) row crop agriculture, (4) livestock production, and (5) atmospheric deposition from the production of nitrogen oxides in electric

[13] To be used by living organisms, nitrogen gas must be fixed into its reactive forms; for plants, either nitrate or ammonia (Boyd, C.E. 1979. *Water Quality in Warmwater Fish Ponds.* Auburn University: Alabama Agricultural Experiment Station, Auburn, AL). Eutrophication is defined as the natural or artificial addition of nitrogen/phosphorus to bodies of water and to the effects of added nitrogen/phosphorus (National Academy of Sciences (U.S.). 1969. *Eutrophication: Causes, Consequences, Correctives.* National Academy of Sciences, Washington, DC.)

[14] National Academy of Sciences (U.S.). 1969. *Eutrophication: Causes, Consequences, Correctives.* National Academy of Sciences, Washington, DC.

[15] Villanueva, C.M. *et al.*, 2006. Bladder Cancer and Exposure to Water Disinfection By-Products through Ingestion, Bathing, Showering, and Swimming in Pools. *American Journal of Epidemiology* 165(2):148–156.

[16] USEPA. 2009. *What is in Our Drinking Water?*. United States Environmental Protection Agency, Office of Research and Development. *http://www.epa.gov/extrmurl/research/process/drinkingwater.html*. Accessed December 2009.

[17] Florida Fish and Wildlife Conservation Commission. 2010. *The economic impact of freshwater fishing in Florida. http://www.myfwc.com/CONSERVATION/Conservation_Valueof Conservation_EconFreshwaterImpact.htm.* Accessed August 2010.

power generation and internal combustion engines. These sources contribute significant loadings of nitrogen and phosphorus to surface waters, causing major impacts to aquatic ecosystems and significant imbalances in the natural populations of flora and fauna.[18] [19]

2. Adverse Impacts of Nitrogen/Phosphorus Pollution on Aquatic Life, Human Health, and the Economy

Fish, shellfish, and wildlife require clean water for survival. Changes in the environment resulting from elevated nitrogen/phosphorus levels (such as algal blooms, toxins from harmful algal blooms, and hypoxia/anoxia) can cause a variety of effects. The causal pathways that lead from human activities to excess nutrients to impacts on designated uses in lakes and streams are well established in the scientific literature (*e.g.*, Streams: Stockner and Shortreed 1976, Stockner and Shortreed 1978, Elwood *et al.* 1981, Horner *et al.* 1983, Bothwell 1985, Peterson *et al.* 1985, Moss *et al.* 1989, Dodds and Gudder 1992, Rosemond *et al.* 1993, Bowling and Baker 1996, Bourassa and Cattaneo 1998, Francoeur 2001, Biggs 2000, Rosemond *et al.* 2001, Rosemond *et al.* 2002, Slavik *et al.* 2004, Cross *et al.* 2006, Mulholland and Webster 2010; Lakes: Vollenweider 1968, NAS 1969, Schindler *et al.* 1973, Schindler 1974, Vollenweider 1976, Carlson 1977, Paerl 1988, Elser *et al.* 1990, Smith *et al.* 1999, Downing *et al.* 2001, Smith *et al.* 2006, Elser *et al.* 2007).[20]

When excessive nitrogen/phosphorus loads change a waterbody's algae and plant species, the change in habitat and available food resources can induce changes affecting an entire food chain. Algal blooms block sunlight that submerged grasses need to grow, leading to a decline of submerged aquatic vegetation beds and decreased habitat for juvenile organisms. Algal blooms can also increase turbidity and impair the ability of fish and other aquatic life to find food.[21] Algae can also damage or clog the gills of fish and invertebrates.[22] Excessive algal blooms (those that use oxygen for respiration during periods without sunlight) can lead to diurnal shifts in a waterbody's production and consumption of dissolved oxygen (DO) resulting in reduced DO levels that are sufficiently low to harm or kill important recreational species such as largemouth bass.

Excessive algal growth also contributes to increased oxygen consumption associated with decomposition (*e.g.* decaying vegetative matter), in many instances reducing

[18] National Research Council. 2000. *Clean coastal waters: Understanding and reducing the effects of nutrient pollution.* National Academies Press, Washington, DC; Howarth, R.W., A. Sharpley, and D. Walker. 2002. Sources of nutrient pollution to coastal waters in the United States: Implications for achieving coastal water quality goals. *Estuaries* 25(4b):656–676; Smith, V.H. 2003. Eutrophication of freshwater and coastal marine ecosystems. *Environmental Science and Pollution Research* 10(2):126–139; Dodds, W.K., W.W. Bouska, J.L. Eitzmann, T.J. Pilger, K.L. Pitts, A.J. Riley, J.T. Schloesser, and D.J. Thornbrugh. 2009. Eutrophication of U.S. freshwaters: Analysis of potential economic damages. *Environmental Science and Technology* 43(1):12–19.

[19] State-EPA Nutrient Innovations Task Group. 2009. *An Urgent Call to Action: Report of the State-EPA Nutrient Innovations Task Group.*

[20] For Streams:

Stockner, J.G., and K.R.S. Shortreed. 1976. Autotrophic production in Carnation Creek, a coastal rainforest stream on Vancouver Island, British Columbia. *Journal of the Fisheries Research Board of Canada* 33:1553–1563.;

Stockner, J.G., and K.R.S. Shortreed. 1978. Enhancement of autotrophic production by nutrient addition in a coastal rainforest stream on Vancouver Island. *Journal of the Fisheries Research Board of Canada* 35:28–34.;

Elwood, J.W., J.D. Newbold, A.F. Trimble, and R.W. Stark. 1981. The limiting role of phosphorus in a woodland stream ecosystem: effects of P enrichment on leaf decomposition and primary producers. *Ecology* 62:146–158.;

Horner, R.R., E.B. Welch, and R.B. Veenstra. 1983. Development of nuisance periphytic algae in laboratory streams in relation to enrichment and velocity. Pages 121–134 in R.G. Wetzel (editor). *Periphyton of freshwater ecosystems.* Dr. W. Junk Publishers, The Hague, The Netherlands.;

Bothwell, M.L. 1985. Phosphorus limitation of lotic periphyton growth rates: an intersite comparison using continuous-flow troughs (Thompson River system, British Columbia). *Limnology and Oceanography* 30:527–542.;

Peterson, B.J., J.E. Hobbie, A.E. Hershey, M.A. Lock, T.E. Ford, J.R. Vestal, V.L. McKinley, M.A.J. Hullar, M.C. Miller, R.M. Ventullo, and G.S. Volk. 1985. Transformation of a tundra river from heterotrophy to autotrophy by addition of phosphorus. *Science* 229:1383–1386.;

Moss, B., I. Hooker, H. Balls, and K. Manson. 1989. Phytoplankton distribution in a temperate floodplain lake and river system. I. Hydrology, nutrient sources and phytoplankton biomass. *Journal of Plankton Research* 11:813–835.;

Dodds, W.K., and D.A. Gudder. 1992. The ecology of Cladophora. *Journal of Phycology* 28:415–427.; Rosemond, A. D., P. J. Mulholland, and J. W. Elwood. 1993. Top-down and bottom-up control of stream periphyton: Effects of nutrients and herbivores. *Ecology* 74:1264–1280.;

Bowling, L.C., and P.D. Baker. 1996. Major cyanobacterial bloom in the Barwon-Darling River, Australia, in 1991, and underlying limnological conditions. *Marine and Freshwater Research* 47: 643–657.;

Bourassa, N., and A. Cattaneo. 1998. Control of periphyton biomass in Laurentian streams (Quebec). *Journal of the North American Benthological Society* 17:420–429.;

Francoeur, S.N. 2001. Meta-analysis of lotic nutrient amendment experiments: detecting and quantifying subtle responses. *Journal of the North American Benthological Society* 20:358–368.;

Biggs, B.J.F. 2000. Eutrophication of streams and rivers: dissolved nutrient-chlorophyll relationships for Benthic algae. *Journal of the North American Benthological Society* 19:17–31.;

Rosemond, A.D., C.M. Pringle, A. Ramirez, and M.J. Paul. 2001. A test of top-down and bottom-up control in a detritus-based food web. *Ecology* 82: 2279–2283.;

Rosemond, A.D., C.M. Pringle, A. Ramirez, M.J. Paul, and J.L. Meyer. 2002. Landscape variation in phosphorus concentration and effects on detritus-based tropical streams. *Limnology and Oceanography* 47:278–289.;

Slavik, K., B.J. Peterson, L.A. Deegan, W.B. Bowden, A.E. Hershey, and J.E. Hobbie. 2004. Long-term responses of the Kuparuk River ecosystem to phosphorus fertilization. *Ecology* 85:939—954.;

Cross, W.F., J.B. Wallace, A.D. Rosemond, and S.L. Eggert. 2006. Whole-system nutrient enrichment increases secondary production in a detritus-based ecosystem. *Ecology* 87:1556–1565.;

Mulholland, P.J. and J.R. Webster. 2010. Nutrient dynamics in streams and the role of J–NABS. *Journal of the North American Benthological Society* 29:100–117.;

For Lakes:

Vollenweider, R.A. 1968. *Scientific Fundamentals of the Eutrophication of Lakes and Flowing Waters, With Particular Reference to Nitrogen and Phosphorus as Factors in Eutrophication* (Tech Rep DAS/CS/68.27, OECD, Paris).;

National Academy of Science. 1969. *Eutrophication: Causes, Consequences, Correctives.* National Academy of Science, Washington, DC.;

Schindler D.W., H. Kling, R.V. Schmidt, J. Prokopowich, V.E. Frost, R.A. Reid, and M. Capel. 1973. Eutrophication of Lake 227 by addition of phosphate and nitrate: The second, third, and fourth years of enrichment 1970, 1971, and 1972. *Journal of the Fishery Research Board of Canada* 30:1415–1440.;

Schindler D.W. 1974. Eutrophication and recovery in experimental lakes: Implications for lake management. *Science* 184:897–899.;

Vollenweider, R.A. 1976. *Advances in Defining Critical Loading Levels for Phosphorus in Lake Eutrophication.* Memorie dell'Istituto Italiano di Idrobiologia 33:53–83.;

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Paerl, H.W. 1988. Nuisance phytoplankton blooms in coastal, estuarine, and inland waters. *Limnology and Oceanography* 33:823–847.;

Elser, J.J., E.R. Marzolf, and C.R. Goldman. 1990. Phosphorus and nitrogen limitation of phytoplankton growth in the freshwaters of North America: a review and critique of experimental enrichments. *Canadian Journal of Fisheries and Aquatic Science* 47:1468–1477.;

Smith, V.H., G.D. Tilman, and J.C. Nekola. 1999. Eutrophication: impacts of excess nutrient inputs on freshwater, marine, and terrestrial ecosystems. *Environmental Pollution* 100:179–196.;

Downing, J.A., S.B. Watson, and E. McCauley. 2001. Predicting cyanobacteria dominance in lakes. *Canadian Journal of Fisheries and Aquatic Sciences* 58:1905–1908.;

Smith, V.H., S.B. Joye, and R.W. Howarth. 2006. Eutrophication of freshwater and marine ecosystems. *Limnology and Oceanography* 51:351–355.;

Elser, J.J., M.E.S. Bracken, E.E. Cleland, D.S. Gruner, W.S. Harpole, H. Hillebrand, J.T. Ngai, E.W. Seabloom, J.B. Shurin, and J.E. Smith. 2007. Global analysis of nitrogen and phosphorus limitation of primary production in freshwater, marine, and terrestrial ecosystems. *Ecology Letters* 10:1135–1142.

[21] Hauxwell, J., C. Jacoby, T. Frazer, and J. Stevely. 2001. *Nutrients and Florida's Coastal Waters:* Florida Sea Grant Report No. SGEB–55. Florida Sea Grant College Program, University of Florida, Gainesville, FL.

[22] NOAA. 2009. Harmful Algal Blooms: Current Programs Overview. National Oceanic and Atmospheric Administration. *http://www.cop.noaa.gov/stressors/extremeevents/hab/default.aspx.* Accessed December 2009.

oxygen to levels below that needed for aquatic life to survive and flourish.[23,24] Mobile species, such as adult fish, can sometimes survive by moving to areas with more oxygen. However, migration to avoid hypoxia depends on species mobility, availability of suitable habitat, and adequate environmental cues for migration. Less mobile or immobile species, such as mussels, cannot move to avoid low oxygen and are often killed during hypoxic events.[25] While certain mature aquatic animals can tolerate a range of dissolved oxygen levels that occur in the water, younger life stages of species like fish and shellfish often require higher levels of oxygen to survive.[26] Sustained low levels of dissolved oxygen cause a severe decrease in the amount of aquatic life in hypoxic zones and affect the ability of aquatic organisms to find necessary food and habitat.

In freshwater, HABs including, for example, blue-green algae from the phylum of bacteria called cyanobacteria,[27] can produce toxins that have been implicated as the cause of a number of fish and bird mortalities.[28] These toxins have also been tied to the death of pets and livestock that may be exposed through drinking contaminated water or grooming themselves after bodily exposure.[29] Many other States, and countries for that matter, are experiencing problems with algal blooms.[30] Ohio on September 3, 2010,[31] for example, listed eight water bodies as "Bloom Advisory,"[32] six water bodies as "Toxin Advisory,"[33] and two waters as "No Contact Advisory."[34] Species of cyanobacteria associated with freshwater algal blooms include: *Microcystis aeruginosa, Anabaena circinalis, Anabaena flos-aquae, Aphanizomenon flos-aquae,* and *Cylindrospermopsis raciborskii.* The toxins from cyanobacterial harmful algal blooms can produce neurotoxins (affect the nervous system), hepatotoxins (affect the liver), produce lipopolysaccharides that affect the gastrointestinal system, and some are tumor promoters.[35] A recent study showed that at least one type of cyanobacteria has been linked to cancer and tumor growth in animals.[36] Cyanobacteria toxins can also pass through normal drinking water treatment processes and pose an increased risk to humans or animals.[37]

Health and recreational use impacts to humans result directly from exposure to elevated nitrogen/phosphorus pollution levels and indirectly from the subsequent waterbody changes that occur from increased nitrogen/ phosphorus pollution (such as algal blooms and toxins). Direct impacts include effects to human health through potentially contaminated drinking water. Indirect impacts include restrictions on recreation (such as boating and swimming). Algal blooms can prevent opportunities to swim and engage in other types of recreation. In areas where recreation is determined to be unsafe because of algal blooms, warning signs are often posted to discourage human use of the waters.

Nitrate in drinking water can cause serious health problems for humans,[38] especially infants. EPA developed a Maximum Contaminant Level (MCL) of 10 mg/L for nitrate in drinking water.[39] In the 2010 USGS National Water-Quality Assessment Program report, nitrate was found to be the most frequently detected nutrient in streams at concentrations greater than 10 mg/L. The report also found that concentrations of nitrate greater than the MCL of 10 mg/L were more prevalent and widespread in groundwater used for drinking water than in streams.[40] Florida has adopted EPA's recommendations for the nitrate MCL in Florida's regulated drinking water systems and a 10 mg/L criteria for nitrate in Class I waters. FDEP shares EPA's concern regarding blue-baby syndrome as can be seen in information FDEP reports on its drinking water information for the public: "Nitrate is used in fertilizer and is found in sewage and wastes from human and/or farm animals and generally gets into drinking water from those activities. Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in infants less than six months of age[41] * * * EPA has set the drinking water standard at 10 parts per million (ppm) [or 10 mg/L] for nitrate to protect

[23] NOAA. 2009. Harmful Algal Blooms: Current Programs Overview. National Oceanic and Atmospheric Administration. *http://www.cop.noaa.gov/stressors/extremeevents/hab/default.aspx.* Accessed December 2009.

[24] USGS. 2009. *Hypoxia.* U.S. Geological Survey. *http://toxics.usgs.gov/definitions/hypoxia.html.* Accessed December 2009.

[25] ESA. 2009. *Hypoxia.* Ecological Society of America. *http://www.esa.org/education_diversity/pdfDocs/hypoxia.pdf.* Accessed December 2009.

[26] USEPA. 1986. *Ambient Water Quality Criteria for Dissolved Oxygen Freshwater Aquatic Life.* EPA–800–R–80–906. Environmental Protection Agency, Office of Water, Washington DC.

[27] CDC. 2010. *Facts about cyanobacteria and cyanobacterial harmful algal blooms. Centers for Disease Control and Prevention. http://www.cdc.gov/hab/cyanobacteria/facts.htm.* Accessed August 2010.

[28] Ibelings, Bas W. and Karl E. Havens. 2008 *Chapter 32: Cyanobacterial toxins: a qualitative meta-analysis of concentrations, dosage and effects in freshwater, estuarine and marine biota. In* Cyanobacterial Harmful Algal Blooms: State of the Science and Research Needs. From the Monograph of the September 6–10, 2005 International Symposium on Cyanobacterial Harmful Algal Blooms (ISOC–HAB) in Durham, NC. *http://www.epa.gov/cyano_habs_symposium/monograph/Ch32.pdf.* Accessed August 19, 2010.

[29] WHOI. 2008. *HAB Impacts on Wildlife.* Woods Hole Oceanographic Institution. *http://www.whoi.edu/redtide/page.do?pid=9682.* Accessed December 2009.

[30] FDEP. 2010. Blue Green Algae Frequently Asked Questions. *http://www.dep.state.fl.us/water/bgalgae/faq.htm.* Accessed August 2010.

[31] Ohio DNR. 2010. News Release September 3, 2010. *http://www.epa.state.oh.us/portals/47/nr/2010/september/9-3samplingresults.pdf.* Accessed September 2010.

[32] Defined as: Cautionary advisory to avoid contact with any algae. Ohio DNR. 2010. News Release September 3, 2010. *http://www.epa.state.oh.us/portals/47/nr/2010/september/9-3samplingresults.pdf.* Accessed September 2010.

[33] Defined as: Avoid contact with any algae and direct contact with water. Ohio DNR. 2010. News Release September 3, 2010. *http://www.epa.state.oh.us/portals/47/nr/2010/september/9-3samplingresults.pdf.* Accessed September 2010.

[34] Defined as: Avoid any and all contact with or ingestion of the lake water. This includes the launching of any watercraft on the lake. Ohio DNR. 2010. News Release September 3, 2010. *http://www.epa.state.oh.us/portals/47/nr/2010/september/9-3samplingresults.pdf.* Accessed September 2010.

[35] CDC. 2010. Facts about cyanobacteria and cyanobacterial harmful algal blooms, Centers for Disease Control and Prevention. *http://www.cdc.gov/hab/cyanobacteria/facts.htm.* Accessed August 2010.

[36] Falconer, I.R., and A.R. Humpage. 2005. Health Risk Assessment of Cyanobacterial (Blue-green Algal) Toxins in Drinking Water. *International Journal of Research and Public Health* 2(1): 43–50.

[37] Carmichael, W.W. 2000. *Assessment of Blue-Green Algal Toxins in Raw and Finished Drinking Water.* AWWA Research Foundation, Denver, CO.

[38] For more information, refer to Manassaram, Deana M., Lorraine C. Backer, and Deborah M. Moll. 2006. *A Review of Nitrates in Drinking Water: Maternal Exposure and Adverse Reproductive and Developmental Outcomes.* Environmental Health Perspect. 114(3): 320–327.

[39] USEPA. 2007. *Nitrates and Nitrites: TEACH Chemical Summary.* U.S. Environmental Protection Agency. *http://www.epa.gov/teach/chem_summ/Nitrates_summary.pdf.* Accessed December 2009.

[40] Dubrovsky, N.M., Burow, K.R., Clark, G.M., Gronberg, J.M., Hamilton P.A., Hitt, K.J., Mueller, D.K., Munn, M.D., Nolan, B.T., Puckett, L.J., Rupert, M.G., Short, T.M., Spahr, N.E., Sprague, L.A., and Wilber, W.G. 2010. *The quality of our Nation's waters—Nutrients in the Nation's streams and groundwater, 1992–2004:* U.S. Geological Survey Circular 1350, 174p. Available electronically at: *http://water.usgs.gov/nawqa/nutrients/pubs/circ1350.*

[41] The serious illness in infants is caused because nitrate is converted to nitrite in the body. Nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that symptoms can develop rapidly in infants. In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. (source: FDEP. 2010. Drinking Water: Inorganic Contaminants. Florida Department of Environmental Protection. *http://www.dep.state.fl.us/water/drinkingwater/inorg_con.htm.* Accessed September 2010.)

against the risk of these adverse effects[42] * * * Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to nitrate."[43]

Human health can also be impacted by disinfection byproducts formed when disinfectants (such as chlorine) used to treat drinking water react with organic carbon (from the algae in source waters). Some disinfection byproducts have been linked to rectal, bladder, and colon cancers; reproductive health risks; and liver, kidney, and central nervous system problems.[44][45]

Economic losses from algal blooms and harmful algal blooms can include increased costs for drinking water treatment, reduced property values for streams and lakefront areas, commercial fishery losses, and lost revenue from recreational fishing, boating trips, and other tourism-related businesses.

In terms of increased costs for drinking water treatment, for example, in 1991, Des Moines (Iowa) Water Works constructed a $4 million ion exchange facility to remove nitrate from its drinking water supply. This facility was designed to be used an average of 35–40 days per year to remove excess nitrate levels at a cost of nearly $3000 per day.[46]

Fremont, Ohio (a city of approximately 20,000) has experienced high levels of nitrate from its source, the Sandusky River, resulting in numerous drinking water use advisories. An estimated $15 million will be needed to build a reservoir (and associated piping) that will allow for selective withdrawal from the river to avoid elevated levels of nitrate, as well as to provide storage.[47]

In regulating allowable levels of chlorophyll *a* in Oklahoma drinking water reservoirs, the Oklahoma Water Resources Board estimated that the long-term cost savings in drinking water treatment for 86 systems would range between $106 million and $615 million if such regulations were implemented.[48]

3. Nitrogen/Phosphorus Pollution in Florida

Florida's flat topography causes water to move slowly over the landscape, allowing ample opportunity for nitrogen and phosphorus to dissolve and eutrophication responses to develop. Florida's warm and wet, yet sunny, climate further contributes to increased run-off and ideal temperatures for subsequent eutrophication responses.[49]

As outlined in the EPA January 2009 determination and the January 2010 proposal, water quality degradation resulting from excess nitrogen and phosphorus loadings is a documented and significant environmental issue in Florida. FDEP notes in its *2008 Integrated Water Quality Assessment* that nutrient pollution poses several challenges in Florida. For example, the FDEP *2008 Integrated Water Quality Assessment* notes: "the close connection between surface and ground water, in combination with the pressures of continued population growth, accompanying development, and extensive agricultural operations, present Florida with a unique set of challenges for managing both water quality and quantity in the future. After trending downward for 20 years, beginning in 2000 phosphorus levels again began moving upward, likely due to the cumulative impacts of nonpoint source pollution associated with increased population and development. Increasing pollution from urban stormwater and agricultural activities is having other significant effects. In many springs across the State, for example, nitrate levels have increased dramatically (twofold to threefold) over the past 20 years, reflecting the close link between surface and ground water."[50] To clarify current nitrogen/phosphorus pollution conditions in Florida, EPA analyzed recent STORET data pulled from Florida's Impaired Waters Rule (IWR),[51] (which are the data Florida uses to create its integrated reports) and found increasing levels of nitrogen and phosphorus compounds in Florida waters over the past 12 years (1996–2008). Florida's IWR STORET data indicates that levels of total nitrogen have increased from a Statewide average of 1.06 mg/L in 1996 to 1.27 mg/L in 2008 and total phosphorus levels have increased from an average of 0.108 mg/L in 1996 to 0.151 mg/L in 2008.

The combination of the factors reported by FDEP and listed above (including population increase, climate, stormwater runoff, agriculture, and topography) has contributed to significant nitrogen/phosphorus effects to Florida's waters.[52] For example, newspapers in Florida regularly report about impacts associated with nitrogen/phosphorus pollution; recent examples include reports of algal blooms and fish kills in the St Johns River[53] and reports of white foam associated with algal blooms lining parts of the St. Johns River.[54] Spring releases of water from Lake Okeechobee into the St Lucie Canal, necessitated by high lake levels due to rainfall, resulted in reports of floating mats of toxic *Microcystis aeruginosa* that prompted Martin and St Lucie county health departments to issue warnings to the public.[55]

The *2008 Integrated Water Quality Assessment* lists nutrients as the fourth major source of impairment for rivers and streams in Florida (after dissolved oxygen, mercury in fish, and fecal coliforms). For lakes and estuaries, nutrients are ranked first and second, respectively. These same rankings are also confirmed in FDEP's latest *2010 Integrated Water Quality Assessment.*

[42] EPA has also set a drinking water standard for nitrite at 1 mg/L. To allow for the fact that the toxicity of nitrate and nitrite are additive, EPA has also established a standard for the sum of nitrate and nitrite at 10 mg/L. (source: FDEP. 2010. Drinking Water: Inorganic Contaminants. Florida Department of Environmental Protection. *http://www.dep.state.fl.us/water/drinkingwater/inorg_con.htm.* Accessed September 2010.)

[43] FDEP. 2010. Drinking Water: Inorganic Contaminants. Florida Department of Environmental Protection. *http://www.dep.state.fl.us/water/drinkingwater/inorg_con.htm.* Accessed September 2010.

[44] USEPA. 2009. *National Primary Drinking Water Regulations.* Contaminants. U.S. Environmental Protection Agency. Accessed *http://www.epa.gov/safewater/hfacts.html.* December 2009.

[45] National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule, 40 CFR parts 9, 141, and 142. U.S. Environmental Protection Agency, FR 71:2 (January 4, 2006). pp. 387–493. Available electronically at: *http://www.epa.gov/fedrgstr/EPA-WATER/2006/January/Day-04/w03.htm.* Accessed December 2009.

[46] Jones, C.S., D. Hill, and G. Brand. 2007. Use a multifaceted approach to manage high sourcewater nitrate. *Opflow* June pp. 20–22.

[47] Taft, Jim, Association of State Drinking Water Administrators (ASDWA). 2009. Personal Communication.

[48] Moershel, Philip, Oklahoma Water Resources Board (OWRB) and Mark Derischweiler, Oklahoma Department of Environmental Quality (ODEQ). 2009. Personal Communication.

[49] Perry, W. B. 2008. Everglades restoration and water quality challenges in south Florida. *Ecotoxicology* 17:569–578.

[50] FDEP. 2008. Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update.

[51] IWR Run 40. Updated through February 2010.

[52] FDEP. 2008. Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update.

[53] Patterson, S. 2010, July 23. *St John's River Looks Sick.* Florida Times Union. *http://jacksonville.com/news/metro/2010-07-23/story/st-johns-looks-sick-nelson-says.* Accessed September 2010.

[54] Patterson, S. 2010, July 21. *Foam on St. John's River Churns Up Environmental Interest.* Florida Times Union. *http://jacksonville.com/news/metro/2010-07-21/story/foam-st-johns-churns-environmental-questions.* Accessed October 2010.

[55] Killer, E. 2010, June 10. *Blue-green Algae Found Floating Near Palm City as Lake Okeechobee Releases Continue.* Treasure Coast Times. *http://www.tcpalm.com/news/2010/jun/10/blue-green-algae-found-floating-near-palm-city-o/.* Accessed October 2010.

According to FDEP's *2008 Integrated Water Quality Assessment*,[56] approximately 1,049 miles of rivers and streams, 349,248 acres of lakes, and 902 square miles of estuaries are impaired by nutrients in the State. To put this in context and as noted above, approximately 5% of the total assessed river and stream miles, 23% of the total assessed lake acres, and 24% of the total assessed square miles of estuaries are impaired for nutrients according to the 2008 Integrated Report.[57] In recent published listings of impairments for 2010, Florida Department of Environmental Protection lists nutrient impairments in 1,918 stream miles (about 8% of the total assessed stream miles), 378,435 lake acres (about 26% of total assessed lake acres), and 569 square miles of estuaries (about 21% of total assessed estuarine square miles).[58]

Compared to FDEP's *2008 Integrated Water Quality Assessment*, the *2010 Integrated Water Quality Assessment* shows an increase in nutrient impairments for rivers and streams (from approximately 1000 miles to 1918 miles) and lakes (from approximately 350,000 lake acres to 378,435 lake acres). While the square miles of estuaries identified as impaired by nutrients decreased from 2008 to 2010 (from approximately 900 to 569 square miles), the *2010 Integrated Water Quality Assessment* notes that all square miles of estuaries in the report were decreased based on improved GIS techniques and corrected waterbody descriptions.[59] Consequently, the decrease in estuarine square miles identified as impaired by nutrients in 2010 does not necessarily reflect a corresponding decrease in nitrogen/phosphorus pollution affecting Florida's estuarine water bodies.

FDEP has expressed concern about nitrogen/phosphorus pollution in Florida surface waters,[60] in addition to concerns about freshwater harmful algal blooms and the potential for adverse human health impacts as noted in FDEP's *2008 Integrated Water Quality Assessment*.[61] This concern is underscored by a toxic blue-green algae bloom that occurred north of the Franklin Lock on the Caloosahatchee River in mid-June 2008. The Olga Water Treatment Plant, which obtains its source water from the Caloosahatchee and provides drinking water for 30,000 people, was forced to temporarily shut down as a result of this bloom.[62]

There has also been an increase in the level of pollutants, especially nitrate, in groundwater over the past decades.[63] The Florida Geological Survey concluded that "The presence of nitrate and the other nitrogenous compounds in ground water, is not considered in Florida to be a result of interaction of aquifer system water with surrounding rock materials. Nitrate in ground water is a result of specific land uses."[64]

Historically, nitrate+nitrite concentrations in Florida's spring discharges were estimated to have been around 0.05 mg/L or less, which is sufficiently low to restrict growth of algae and vegetation under "natural" conditions.[65] Of 125 spring vents sampled by the Florida Geological Survey in 2001–2002, 42% had nitrate+nitrite concentrations exceeding 0.50 mg/L and 24% had concentrations greater than 1.0 mg/L.[66] In the same study, mean nitrate+nitrite levels in 13 first-order springs were observed to have increased from 0.05 mg/L to 0.9 mg/L between 1970 and 2002. Overall, data suggest that nitrate+nitrite concentrations in many spring discharges have increased by an order of magnitude or a factor of 10 over the past 50 years, with the level of increase closely correlated with anthropogenic activity and land use changes within the karst regions of Florida where springs most often occur.[67]

Nitrates are found in ground water and wells in Florida, ranging from the detection limit of 0.02 mg/L to over 20 mg/L. Monitoring of Florida Public Water Supplies from 2004–2009 indicates that exceedances of nitrate maximum contaminant levels (MCL) (which are measured at the entry point of the distribution system and represent treated drinking water from a supplier) reported by drinking water plants in Florida ranged from 34–40 annually, during this period.[68]

About 10% of Florida residents receive their drinking water from a private well or small public source not inventoried under public supply.[69] A study in the late 1980s conducted by Florida Department of Agriculture and Consumer Services (FDACS) and FDEP, analyzed 3,949 shallow drinking water wells for nitrate.[70] [71] Nitrate was detected in 2,483 (63%) wells, with 584 wells (15%) above the MCL of 10 mg/L. Of the 584 wells that exceeded the MCL, 519 were located in Lake, Polk,

[56] FDEP. 2008. Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update.

[57] FDEP. 2008. Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update.

[58] FDEP. 2010. Integrated Water Quality Assessment for Florida: 2010 305(b) Report and 303(d) List Update.

[59] FDEP. 2010. Integrated Water Quality Assessment for Florida: 2010 305(b) Report and 303(d) List Update.

[60] "While significant progress has been made in reducing nutrient loads from point sources and from new development, nutrient loading and the resulting harmful algal blooms continue to be an issue. The occurrence of blue-green algae is natural and has occurred throughout history; however, algal blooms caused by nutrient loading from fertilizer use, together with a growing population and the resulting increase in residential landscapes, are an ongoing concern." FDEP. 2010. Integrated Water Quality Assessment for Florida: 2010 305(b) Report and 303(d) List Update.

[61] "Freshwater harmful algal blooms (HABs) are increasing in frequency, duration, and magnitude and therefore may be a significant threat to surface drinking water resources and recreational areas. Abundant populations of blue-green algae, some of them potentially toxigenic, have been found statewide in numerous lakes and rivers. In addition, measured concentrations of cyanotoxins—a few of them of above the suggested guideline levels—have been reported in finished water from some drinking water facilities." FDEP. 2008. Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update.

[62] Peltier, M. 2008. *Group files suit to enforce EPA water standards*. Naples News. *http://news.caloosahatchee.org/docs/NaplesNews_080717.htm*. Accessed August 2010.

[63] Scott, T.M., G.H. Means, R.P. Meegan, R.C. Means, S.B. Upchurch, R.E. Copeland, J. Jones, T. Roberts, and A. Willet. 2004. *Springs of Florida*. Bulletin No. 66. Florida Geological Survey, Tallahassee, FL. 677 pp.

[64] FL Geological Survey. 1992. Special Publication No. 34, Florida's Ground Water Quality Monitoring Program, (nitrate-pp 36–6).

[65] Maddox, G.L., J.M. Lloyd, T.M. Scott, S.B. Upchurch and R. Copeland. 1992. *Florida's Groundwater Quality Monitoring Program—Background Hydrochemistry*. Florida Geological Survey Special Publication No. 34, Tallahassee, FL.

[66] Scott, T.M., G.H. Means, R.P. Meegan, R.C. Means, S.B. Upchurch, R.E. Copeland, J. Jones, T. Roberts, and A. Willet. 2004. *Springs of Florida*. Bulletin No. 66. Florida Geological Survey, Tallahassee, FL. 677 pp.

[67] Katz, B.G., H.D. Hornsby, J.F. Bohlke and M.F. Mokray. 1999. *Sources and chronology of nitrate contamination in spring water, Suwannee River Basin, Florida*. Water-Resources Investigations Report 99–4252. U.S. Geological Survey, Tallahassee, FL. Available electronically at: *http://fl.water.usgs.gov/PDF_files/wri99_4252_katz.pdf*.

Scott, T.M., G.H. Means, R.P. Meegan, R.C. Means, S.B. Upchurch, R.E. Copeland, J. Jones, T. Roberts, and A. Willet. 2004. *Springs of Florida*. Bulletin No. 66. Florida Geological Survey, Tallahassee, FL. 677 pp.

[68] FDEP. 2009. *Chemical Data for 2004, 2005, 2006, 2007 2008, and 2009*. Florida Department of Environmental Protection. *http://www.dep.state.fl.us/water/drinkingwater/chemdata.htm*. Accessed January 2010.

[69] Marella, R.L. 2009. *Water Withdrawals, Use, and Trends in Florida, 2005*. Scientific Investigations Report 2009–5125. U.S. Geological Survey, Reston, VA.

[70] Southern Regional Water Program. 2010. *Drinking Water and Human Health in Florida*. *http://srwqis.tamu.edu/florida/program-information/florida-target-themes/drinking-water-and-human-health.aspx*. Accessed January 2010.

[71] T.A. Obreza and K.T. Morgan. 2008. *Nutrition of Florida Citrus Trees* 15 months after publication of the final rule, except for the Federal site-specific alternative criteria (SSAC) procedure in section 131.43(e) of the rule which will go into effect 60 days after publication. 2nd ed. SL 253. University of Florida, IFAS Extension. *http://edis.ifas.ufl.edu/pdffiles/SS/SS47800.pdf*. Accessed September 2010.

and Highland counties located in Central Florida. Results of monitoring conducted between 1999 and 2003 in a network of wells in that area indicated that of the 31 monitoring wells, 90% exceeded the nitrate drinking-water standard of 10 mg/L one or more times.[72] [73] FDEP monitored this same area (the VISA monitoring network) in 1990, 1993, and 1996, analyzing samples from 15–17 wells each cycle and reported median concentrations ranging from 17 to 20 mg/L nitrate, depending on the year.[74] Some areas of Florida tend to be more susceptible to groundwater impacts from nitrogen pollution, especially those that have sandy soils, have high hydraulic conductivity, and have overlying land uses that are subject to applications of fertilizers and animal or human wastes.[75] For example, USGS reports that in Highland county, highly developed suburban and agricultural areas tend to have levels of nitrates in the surficial groundwater that approach and can exceed the State primary drinking water standard of 10 mg/L for public water systems. Other areas in Highland county that are less developed tend to have much lower levels of nitrates in the surficial groundwater, often below detection levels.

The Floridian aquifer system is one of the largest sources of ground water in the U.S., and serves as a primary source of drinking water in Northern Florida. The Upper Floridian aquifer is unconfined or semiconfined in areas in Northern Florida, but is also confined by the overlying surficial aquifer system which is used for water supply. Wells in unconfined areas of the Upper Floridian aquifer tested in northern Florida had nitrate levels higher than 1 mg/L in 40% of wells; 17% of samples from the semiconfined area had nitrate levels above 1 mg/L. In both aquifer systems this indicates the widespread impact of nitrate on groundwater quality in this area.[76] [77] This baseline sampling indicates a pattern of widespread nitrate occurrence in the Upper Floridian aquifer from two decades ago. A portion of these early samples exceeded 10 mg/L nitrate (25 of the 726 samples taken from this unconfined or semi-confined aquifer; 50 of the 421 water samples from the surficial aquifer).

Growing population trends in Florida contribute to the significant challenge of addressing nitrogen/phosphorus pollution in Florida. Historically, the State has experienced a rapidly expanding population. Significantly growing demographics are considered to be a strong predictor of nitrogen/phosphorus loading and associated effects because of increases in stormwater runoff from increased impervious surfaces and increased wastewater treatment flows both of which typically contain some level of nitrogen/phosphorus.[78] Florida is currently the fourth most populous State in the nation, with an estimated 18 million people.[79] The U.S. Census bureau predicts the Florida population will exceed 28 million people by 2030, making Florida the third most populous State in the U.S.[80]

B. Statutory and Regulatory Background

Section 303(c) of the CWA (33 U.S.C. 1313(c)) directs States to adopt WQS for their navigable waters. Section 303(c)(2)(A) and EPA's implementing regulations at 40 CFR part 131 require, among other things, that State WQS include the designated use or uses to be made of the waters and criteria that protect those uses. EPA regulations at 40 CFR 131.11(a)(1) provide that States shall "adopt those water quality criteria that protect the designated use" and that such criteria "must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use." As noted above, 40 CFR 130.10(b) provides that "[i]n designating uses of a waterbody and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters."

States are also required to review their WQS at least once every three years and, if appropriate, revise or adopt new standards. (*See* CWA section 303(c)(1)). Any new or revised WQS must be submitted to EPA for review and approval or disapproval. (*See* CWA section 303(c)(2)(A)). Finally, CWA section 303(c)(4)(B) authorizes the Administrator to determine, even in the absence of a State submission, that a new or revised standard is needed to meet CWA requirements. The criteria finalized in this rulemaking translate Florida's narrative nutrient provision at Subsection 62–302–530(47)(b), F.A.C., into numeric values that apply to lakes and springs throughout Florida and flowing waters outside of the South Florida Region.[81]

C. Water Quality Criteria

Under CWA section 304(a), EPA periodically publishes criteria recommendations (guidance) for use by States in setting water quality criteria for particular parameters to protect recreational and aquatic life uses of waters. Where EPA has published recommended criteria, States have the option of adopting water quality criteria based on EPA's CWA section 304(a) criteria guidance, section 304(a) criteria guidance modified to reflect site-specific conditions, or other scientifically defensible methods. (*See* 40 CFR 131.11(b)(1)). For nitrogen/phosphorus pollution, EPA has published under CWA section 304(a) a series of peer-reviewed, national technical approaches and methods regarding the development of numeric criteria for lakes and reservoirs,[82] rivers and streams,[83] and estuaries and coastal marine waters.[84]

[72] T.A. Obreza and K.T. Morgan. 2008. *Nutrition of Florida Citrus Trees*. 2nd ed. SL 253. University of Florida, IFAS Extension. *http://edis.ifas.ufl.edu/pdffiles/SS/SS47800.pdf*. Accessed September 2010.

[73] USGS. 2009, November. *Overview of Agricultural Chemicals: Pesticides and Nitrate. http://fl.water.usgs.gov/Lake_Wales_Ridge/html/overview_of_agrichemicals.html*. Accessed September 2010.

[74] FDEP. 1998. *Ground Water Quality and Agricultural Land Use in the Polk County Very Intense Study Area (VISA)*. Florida Department of Environmental Protection, Division of Water Facilities. *http://www.dep.state.fl.us/water/monitoring/docs/facts/fs9802.pdf*. Accessed September 2010.

[75] USGS. 2010. *Hydrogeology and Groundwater Quality of Highlands County, FL*. Scientific Investigations Report 2010–5097. U.S. Geological Survey, Reston, VA.

[76] Berndt, M.P., 1996. *Ground-water quality assessment of the Georgia-Florida Coastal Plain study unit—Analysis of available information on nutrients, 1972–92*. Water-Resources Investigations Report 95–4039. U.S. Geological Survey, Tallahassee, FL.

[77] Berndt, Marian P., 1993. *National Water-Quality Assessment Program-Preliminary assessment of nitrate distribution in ground water in the Georgia-Florida Coastal Plain Study Unit, 1972–90*. Open-File Report 93–478. U.S. Geological Survey.

[78] National Research Council, Committee on Reducing Stormwater Discharge Contributions to Water Pollution. 2008. *Urban Stormwater Management in the United States*. National Academies Press, Washington, DC.

[79] U.S. Census Bureau. 2009. 2008 Population Estimates Ranked by State. *http://factfinder.census.gov*. Accessed January 2010.

[80] U.S. Census Bureau. 2009. 2008 Population Estimates Ranked by State. *http://factfinder.census.gov*. Accessed January 2010.

[81] The criteria finalized in this rulemaking do not address or translate Florida's narrative nutrient provision at Subsection 62–302.530(47)(a), F.A.C. Subsection 62–302.530(47)(a), F.A.C., remains in place as an applicable WQS for CWA purposes.

[82] USEPA. 2000a. *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs*. EPA–822–B–00–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[83] USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams*. EPA–822–B–00–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[84] USEPA. 2001. *Nutrient Criteria Technical Manual: Estuarine and Coastal Marine Waters*.

EPA based the methodologies used to develop numeric criteria for Florida in this regulation on its published guidance on developing criteria that identifies three general approaches for criteria setting. The three types of empirical analyses provide distinctly different, independently and scientifically defensible, approaches for deriving nutrient criteria from field data: (1) Reference condition approach derives candidate criteria from observations collected in reference waterbodies, (2) mechanistic modeling approach represents ecological systems using equations that represent ecological processes and parameters for these equations that can be calibrated empirically from site-specific data, and (3) empirical nutrient stressor-response modeling is used when data are available to accurately estimate a relationship between nutrient concentrations and a response measure that is directly or indirectly related to a designated use of the waterbody (*e.g.*, a biological index or recreational use measure). Then, nutrient concentrations that are protective of designated uses can be derived from the estimated relationship).[85] Each of these three analytical approaches is appropriate for deriving scientifically defensible numeric nutrient criteria when applied with consideration of method-specific data needs and available data. In addition to these empirical approaches, consideration of established (*e.g.*, published) nutrient response thresholds is also an acceptable approach for deriving criteria.[86]

For lakes, EPA used a stressor-response approach to link nitrogen/phosphorus concentrations to predictions of corresponding chlorophyll *a* concentrations. EPA used a reference-based approach for streams, relying on a comprehensive screening methodology to identify least-disturbed streams as reference streams. For springs, EPA used algal or nitrogen/phosphorus thresholds developed under laboratory conditions and stressor-response relationships from several field studies of algal growth in springs. For each type of waterbody, EPA carefully considered the available data and evaluated several lines of evidence to derive scientifically sound approaches (as noted above) for developing the final numeric criteria.

Based on comments received from the Scientific Advisory Board (SAB), EPA has modified a draft methodology guidance document on using stressor-response relationships for deriving numeric criteria, which is available as a final technical guidance document.[87] In addition, the reference-based and algal or nitrogen/phosphorus threshold approaches have been peer reviewed and have been available for many years.

As mentioned above, the criteria finalized in this rulemaking translate Florida's narrative nutrient provision at Subsection 62–302.530(47)(b), F.A.C., ("[i]n no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna") into numeric values that apply to lakes and springs throughout the State and flowing waters outside of the South Florida Region. EPA believes that numeric criteria will expedite and facilitate the effective implementation of Florida's existing point and non-point source water quality programs in terms of timely water quality assessments, TMDL development, NPDES permit issuance and, where needed, Basin Management Action Plans (BMAPs) to address nitrogen/phosphorus pollution. EPA notes that Subsection 62–302.530(47)(a), F.A.C. ("[t]he discharge of nutrients shall continue to be limited as needed to prevent violations of other standards contained in this chapter. Man-induced nutrient enrichment (total nitrogen or total phosphorus) shall be considered degradation in relation to the provisions of Sections 62–302.300, 62–302.700, and 62–4.242, F.A.C.") could result in more stringent nitrogen/phosphorus limits, where necessary to protect other applicable WQS in Florida.

D. EPA Determination Regarding Florida and EPA's Rulemaking

On January 14, 2009, EPA determined under CWA section 303(c)(4)(B) that new or revised WQS in the form of numeric water quality criteria for nitrogen/phosphorus pollution are necessary to meet the requirements of the CWA in the State of Florida. As noted above, the portion of Florida's currently applicable narrative criterion translated by this final rule provides, in part, that "in no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." (*See* Subsection 62–302.530(47)(b), F.A.C.). EPA determined that Florida's narrative criterion alone was insufficient to ensure protection of applicable designated uses. The determination recognized that Florida has a comprehensive regulatory and non-regulatory administrative water quality program to address nitrogen/phosphorus pollution through a water quality strategy of assessments, non-attainment listing and determinations, TMDL development, and National Pollutant Discharge Elimination System (NPDES) permit regulations; individual watershed management plans through the State's BMAPs; advanced wastewater treatment technology-based requirements under the 1990 Grizzle-Figg Act; together with rules to limit nitrogen/phosphorus pollution in geographically specific areas like the Indian River Lagoon System, the Everglades Protection Area, and Wekiva Springs. However, the determination noted that despite Florida's existing regulatory and non-regulatory water quality framework and the State's intensive efforts to diagnose nitrogen/phosphorus pollution and address it on a time-consuming and resource-intensive case-by-case basis, substantial water quality degradation from nitrogen/phosphorus over-enrichment remains a significant challenge in the State and conditions are likely to worsen with continued population growth and land-use changes.

Overall, the combined impacts of urban and agricultural activities, along with Florida's physical features and important and unique aquatic ecosystems, made it clear that the current reliance on the narrative criterion alone and a resource-intensive, site-specific implementation approach, and the resulting delays that it entails, do not ensure protection of applicable designated uses for the many State waters that either have been listed as impaired and require loadings reductions or those that are high quality and require protection from future degradation. EPA concluded that numeric criteria for nitrogen/phosphorus pollution will enable the State to take necessary action to protect

EPA–822–B–01–003. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[85] USEPA. 2000a. *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs*. EPA–822–B–00–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams*. EPA–822–B–00–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

USEPA. 2001. *Nutrient Criteria Technical Guidance Manual: Estuarine and Coastal Marine Waters*. EPA–822–B–01–003. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

USEPA. 2008. *Nutrient Criteria Technical Guidance Manual: Wetlands*. EPA–822–B–08–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[86] USEPA. 2000a. *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs*. EPA–822–B–00–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[87] USEPA. 2010. *Using Stressor-Response Relationships to Derive Numeric Nutrient Criteria*. EPA–820–S–10–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

the designated uses in a timely manner that will ensure protection of the designated use. The resource-intensive efforts to interpret the State's narrative criterion contribute to substantial delays in implementing the criterion and, therefore, undercut the State's ability to provide the needed protections for applicable designated uses. EPA, therefore, determined that numeric criteria for nitrogen/phosphorus pollution are necessary for the State of Florida to meet the CWA requirement to have criteria that protect applicable designated uses. EPA determined that numeric water quality criteria would strengthen the foundation for identifying impaired waters, establishing TMDLs, and deriving water quality-based effluent limits in NPDES permits, thus providing the necessary protection for the State's designated uses in its waters. In addition, numeric criteria will support the State's ability to effectively partner with point and nonpoint sources to control nitrogen/ phosphorus pollution, thus further providing the necessary protection for the designated uses of the State's water bodies. EPA's determination is available at the following Web site: *http://www.epa.gov/waterscience/standards/rules/fl-determination.htm.*

While Florida continues to work to implement its watershed management program, the impairments for nutrient pollution are increasing as evidenced by the 2008 and 2010 *Integrated Water Quality Assessment for Florida* report results, and the tools to correct the impairments (TMDLs and BMAPs) are not being completed at a pace to keep up. Numeric criteria can be used as a definitive monitoring tool to identify impaired waters and as an endpoint for TMDLs to establish allowable loads necessary to correct impairments. When developing TMDLs, as it does when determining reasonable potential and deriving limits in the permitting context, Florida translates the narrative criterion into a numeric target that the State determines is necessary to meet its narrative criterion and protect applicable designated uses. This process involves a site-specific analysis to determine the nitrogen and phosphorus concentrations that would "cause an imbalance in natural populations of aquatic flora or fauna" in a particular water.

When deriving NPDES water quality-based permit limits, Florida initially conducts a site-specific analysis to determine whether a proposed discharge has the reasonable potential to cause or contribute to an exceedance of its narrative water quality criterion. The absence of numeric criteria make this "reasonable potential" analysis more complex, data-intensive, and protracted. Following a reasonable potential analysis, the State then evaluates what levels of nitrogen and phosphorus would "cause an imbalance in natural populations of aquatic flora or fauna" and translates those levels into numeric "targets" for the receiving water and any other affected waters. Determining on a State-wide, water-by-water basis the levels of nitrogen and phosphorus that would "cause an imbalance in natural populations of aquatic flora or fauna" is a difficult, lengthy, and data-intensive undertaking. This work involves performing detailed location-specific analyses of the receiving water. If the State has not already completed this analysis for a particular waterbody, it can be very difficult to accurately determine in the context and timeframe of the NPDES permitting process. For example, in some cases, site-specific data may take several years to collect and, therefore, may not be available for a particular waterbody at the time of permitting issuance or re-issuance.

The January 14, 2009 determination stated EPA's intent to propose numeric criteria for lakes and flowing waters in Florida within 12 months of the January 14, 2009 determination, and for estuarine and coastal waters within 24 months of the determination. On August 19, 2009, EPA entered into a Consent Decree with Florida Wildlife Federation, Sierra Club, Conservancy of Southwest Florida, Environmental Confederation of Southwest Florida, and St. Johns Riverkeeper, committing to the schedule stated in EPA's January 14, 2009 determination to propose numeric criteria for lakes and flowing waters in Florida by January 14, 2010, and for Florida's estuarine and coastal waters by January 14, 2011. The Consent Decree also required that final rules be issued by October 15, 2010 for lakes and flowing waters, and by October 15, 2011 for estuarine and coastal waters. FDEP, independently from EPA, initiated its own State rulemaking process in the spring/summer of 2009 to adopt nutrient water quality standards protective of Florida's lakes and flowing waters. FDEP held several public workshops on its draft numeric criteria for lakes and flowing waters. In October 2009, however, FDEP decided not to bring the draft criteria before the Florida Environmental Regulation Commission, as had been previously scheduled.

Pursuant to the Consent Decree, EPA's Administrator signed the proposed numeric criteria for Florida's lakes and flowing waters on January 14, 2010, which was published in the **Federal Register** on January 26, 2010. EPA conducted a 90-day public comment period for this rule that closed on April 28, 2010. During this period, EPA also conducted 13 public hearing sessions in 6 cities in Florida. EPA received over 22,000 public comments from a variety of sources, including environmental groups, municipal wastewater associations, industry, State agencies, local governments, agricultural groups, and private citizens. The comments addressed a wide range of issues, including technical analyses, policy issues, economic costs, and implementation concerns. In this notice, EPA explains the inland waters final rule and provides a summary of major comments and the Agency's response in the sections that describe each of the provisions of the final rule. EPA has prepared a detailed "Comment Response Document," which includes responses to the comments contributed during the public hearing sessions, as well as those submitted in writing on the proposed rule, and is located in the docket for this rule.

On June 7, 2010, EPA and Plaintiffs filed a joint notice with the Court extending the deadlines for promulgating numeric criteria for Florida's estuaries and coastal waters, flowing waters in south Florida (including canals), and the downstream protection values for flowing waters into estuaries and coastal waters. The new deadlines are November 14, 2011 for proposing this second phase of criteria, and August 15, 2012 for publishing a final rule for these three categories. This will allow EPA time to hold a public peer review by EPA's Scientific Advisory Board (SAB) of the scientific methodologies for estuarine and coastal criteria, flowing waters in south Florida, and downstream protection values for estuaries and coastal waters.

Based upon comments and new data and information received during the public comment phase of the January 2010 proposed rule, on August 3, 2010 EPA published a supplemental notice of data availability and request for comment related to the Agency's January 26, 2010 notice of proposed rulemaking. In its supplemental notice, EPA solicited comment on a revised regionalization approach for streams, additional information and analysis on least-disturbed sites as part of a modified benchmark distribution approach, and additional options for developing downstream protection values (DPVs) for lakes. EPA did not solicit additional comment on any other provisions of the January 2010 proposal. EPA received 71 public comments from a variety of sources, including local and State governments, industry, and environmental groups. As mentioned above, EPA provides a summary of major comments and the Agency's response in the sections that describe each of the provisions of the final rule. Responses to comments submitted during the public comment period associated with the supplemental notice are also included in EPA's detailed "Comment Response Document," located in the docket for this rule.

On October 8, 2010, EPA filed an unopposed motion with the Court requesting that the deadline for signing the final rule be extended to November 14, 2010. The Court granted EPA's motion on October 27, 2010. EPA used this additional time to review and confirm that all comments were fully considered.

In accordance with the January 14, 2009 determination, the August 19, 2009 Consent Decree, and the June 7, 2010 and October 27, 2010 revisions to that Consent Decree, in this final notice EPA is promulgating final numeric criteria for streams, lakes, and springs in the State of Florida.[88]

III. Numeric Criteria for Streams, Lakes, and Springs in the State of Florida

A. General Information

For this final rule, EPA derived numeric criteria for streams, lakes and springs to implement Florida Subsection 62–302.530(47)(b), F.A.C.[89] This final rule also includes downstream protection values (DPVs) to ensure the attainment and maintenance of the WQS for downstream lakes. Derivation of these criteria is based upon an extensive amount of Florida-specific data. EPA has carefully considered numerous comments from a range of stakeholders and has worked in close collaboration with FDEP technical and scientific experts to analyze, evaluate, and interpret these Florida-specific data in deriving scientifically sound numeric criteria for this final rulemaking.

To support derivation of the final streams criteria, EPA screened and evaluated water chemistry data from more than 11,000 samples from over 6,000 sites statewide. EPA also evaluated biological data consisting of more than 2,000 samples from over 1,100 streams. To support derivation of the final lakes criteria, EPA screened and evaluated relevant lake data, which consisted of over 17,000 samples from more than 1,500 lakes statewide. Finally, for the final springs criterion, EPA evaluated and relied on scientific information and analyses from more than 40 studies including historical accounts, laboratory scale dosing studies and field surveys.

In deriving these final numeric values, the EPA met and consulted with FDEP expert scientific and technical staff on numerous occasions as part of an ongoing collaborative process. EPA carefully considered and evaluated the technical approaches and scientific analysis that FDEP presented as part of its July 2009 draft numeric criteria,[90] as well as its numerous comments on different aspects of this rule. The Agency also received and carefully considered substantial stakeholder input from 13 public hearings in 6 Florida cities. Finally, EPA reviewed and evaluated further analysis and information included in more than 22,000 comments on the January 2010 proposal and an additional 71 comments on the August 2010 supplemental notice.

EPA has created a technical support document that provides detailed information regarding the methodologies discussed herein and the derivation of the final criteria. This document is entitled "Technical Support Document for EPA's Final Rule for Numeric Criteria for Nitrogen/Phosphorus Pollution in Florida's Inland Surface Fresh Waters" ("EPA Final Rule TSD for Florida's Inland Waters" or "TSD") and is part of the record and supporting documentation for this final rule. As part of its review of additional technical and scientific information, EPA has documented its consideration of key comments and issues received from a wide range of interested parties during the rulemaking process. This analysis and consideration is included as part of a comment response document entitled "Response to Comments—EPA's Numeric Criteria for Nitrogen/Phosphorus Pollution in the State of Florida's Lakes and Flowing Waters" that is also part of the record and supporting documentation for this final rule.

This section of the preamble describes EPA's final numeric criteria for Florida's streams (III.B), lakes (III.C), and springs (III.D), with the associated methodologies EPA employed to derive them. Each subsection includes the final numeric criteria (magnitude, duration, and frequency) and background information and supporting analyses. Section III.E discusses the applicability and implementation of these final criteria.

As discussed, the scientific basis for the derivation of the applicable criteria for streams, lakes and springs in this final rule is outlined below and explained in more detail in the Technical Support Document accompanying this rulemaking. The final criteria and related provisions in this rule reflect a detailed consideration and full utilization of the best available science, data, literature, and analysis related to the specific circumstances and contexts for deriving numeric criteria in the State of Florida. This includes, but is not limited to, the substantial quantity and quality of available data in Florida, Florida's regional hydrologic, biological, and land use characteristics, and the biological responses in Florida's surface water systems.

B. Numeric Criteria for the State of Florida's Streams

(1) Final Rule

EPA is promulgating numeric criteria for TN and TP in five geographically distinct watershed regions of Florida's streams classified as Class I or III waters under Florida law (Section 62–302.400, F.A.C.).

TABLE B–1—EPA'S NUMERIC CRITERIA FOR FLORIDA STREAMS

Nutrient watershed region	Instream protection value criteria	
	TN (mg/L) *	TP (mg/L) *
Panhandle West [a]	0.67	0.06
Panhandle East [b]	1.03	0.18
North Central [c]	1.87	0.30
West Central [d]	1.65	0.49
Peninsula [e]	1.54	0.12

Watersheds pertaining to each Nutrient Watershed Region (NWR) were based principally on the NOAA coastal, estuarine, and fluvial drainage areas with modifications to the NOAA drainage areas in the West Central and Peninsula Regions that account for unique watershed geologies. For more detailed information on regionalization and which WBIDs pertain to each NWR, *see* the Technical Support Document.

[88] For purposes of this rule, EPA has distinguished South Florida as those areas south of Lake Okeechobee and the Caloosahatchee River watershed to the west of Lake Okeechobee and the St. Lucie watershed to the east of Lake Okeechobee, hereinafter referred to as the South Florida Region. Numeric criteria applicable to flowing waters in the South Florida Region will be addressed in the second phase of EPA's rulemaking regarding the establishment of estuarine and coastal numeric criteria. (Please refer to Section I.B for a discussion of the water bodies affected by this rule).

[89] In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.

[90] FDEP. 2009. *Draft Technical Support Document: Development of Numeric Nutrient Criteria for Florida's Lakes and Streams.* Florida Department of Environmental Protection, Standards and Assessment Section. Available electronically at: *http://www.dep.state.fl.us/water/wqssp/nutrients/docs/tsd_nutrient_crit.docx.* Accessed October 2010.

[a] Panhandle West region includes: Perdido Bay Watershed, Pensacola Bay Watershed, Choctawhatchee Bay Watershed, St. Andrew Bay Watershed, Apalachicola Bay Watershed.

[b] Panhandle East region includes: Apalachee Bay Watershed, and Econfina/Steinhatchee Coastal Drainage Area.

[c] North Central region includes the Suwannee River Watershed.

[d] West Central region includes: Peace, Myakka, Hillsborough, Alafia, Manatee, Little Manatee River Watersheds, and small, direct Tampa Bay tributary watersheds south of the Hillsborough River Watershed.

[e] Peninsula region includes: Waccasassa Coastal Drainage Area, Withlacoochee Coastal Drainage Area, Crystal/Pithlachascotee Coastal Drainage Area, small, direct Tampa Bay tributary watersheds west of the Hillsborough River Watershed, Sarasota Bay Watershed, small, direct Charlotte Harbor tributary watersheds south of the Peace River Watershed, Caloosahatchee River Watershed, Estero Bay Watershed, Kissimmee River/Lake Okeechobee Drainage Area, Loxahatchee/St. Lucie Watershed, Indian River Watershed, Daytona/St. Augustine Coastal Drainage Area, St. John's River Watershed, Nassau Coastal Drainage Area, and St. Mary's River Watershed.

[*] For a given waterbody, the annual geometric mean of TN or TP concentrations shall not exceed the applicable criterion concentration more than once in a three-year period.

(2) Background and Analysis

(a) Methodology for Stream Classification

In January 2010, EPA proposed to classify Florida's streams into four regions (referred to in the proposed rule as "Nutrient Watershed Regions") for application of TN and TP criteria. This proposal was based upon the premise that streams within each of these regions (Panhandle, Bone Valley, Peninsula and North Central) reflect similar geographical characteristics, including phosphorus-rich soils, nitrogen/phosphorus concentrations and nitrogen to phosphorus ratios. To classify these four regions, EPA began by considering the watershed boundaries of downstream estuaries and coastal waters in recognition of the hydrology of Florida's flowing waters and the importance of protecting downstream water quality. This is consistent with a watershed approach to water quality management, which EPA encourages to integrate and coordinate efforts within a watershed in order to most effectively and efficiently protect our nation's water resources.[91] EPA then classified Florida's streams based upon a consideration of the natural factors that contribute to variability in nutrient concentrations in streams (*e.g.*, geology, soil composition). In the State of Florida, these natural factors are mainly associated with phosphorus. EPA's proposal reflected a conclusion that these natural factors could best be represented by separating the watersheds in the State into four regions and then using the least-disturbed sites within those regions to differentiate between the expected natural concentrations of TN and TP.

EPA received comments suggesting that the proposed stream regionalization be amended to more accurately account for naturally-high phosphorus soils in the northern Panhandle, west of the proposed North Central region. Specifically, EPA was asked to consider the westward extent of the Hawthorn Group, a phosphorus-rich geological formation that can influence stream phosphorus concentrations. At proposal, EPA had taken the Hawthorn Group into account when it proposed two distinct stream regions to the east and south of the panhandle region: the North Central and the West Central (formerly called the Bone Valley at proposal). Following proposal and in response to these comments, EPA revisited its review of underlying soils and geology in the Panhandle, itself, and the relationship of those geological characteristics to observed patterns in phosphorus concentrations in streams. EPA further considered how well such a revised regionalization explained observed variability in TP concentrations relative to the proposed regionalization. EPA concluded that a revised regional classification subdividing the proposed Panhandle region into a western and eastern section accurately reflected phosphate contributions from the underlying geologic formations that are reflected in the expected instream phosphorus concentrations. As discussed in the August 2010 supplemental notice, EPA has used the revised Panhandle regions for TN criteria to assure consistency and clarity in applicability decisions and implementation. This approach addresses the concerns of commenters that regionalization is an important consideration in developing stream criteria. EPA provided a supplemental notice and solicitation of comment in August 2010 on this potential change to the Panhandle region. In this final rule, EPA has thus taken into account the portion of the Hawthorn Group that lies in the eastern portion of the Panhandle region and has delineated the Panhandle region along watershed boundaries into East and West portions divided by the eastern edge of the Apalachicola River watershed (or alternatively, the western edge of the Suwannee River watershed). For more information regarding the EPA's consideration of alternative approaches for classification, please *see* the TSD and response to comments.

EPA also received comment that the original West Central region (referred to as the Bone Valley in the proposed rule) was too broad and incorporated watersheds that were not influenced by underlying Hawthorn Group geology, especially small, direct coastal drainage watersheds along the western and southern boundaries. EPA reexamined the watershed delineations of the West Central and Peninsula regions based on information in these comments and concluded that the comments were technically correct. EPA also provided a supplemental notice and solicitation of comment on this potential change to the West Central and Peninsula regions. In this final rule, EPA has refined the boundary delineations accordingly. The result for the West Central region was a modified boundary that shifts small, direct Tampa Bay tributary watersheds west of the Hillsborough River Watershed; small, direct Charlotte Harbor tributary watersheds south of the Peace River Watershed; and the entire Sarasota Bay Watershed from the West Central (Bone Valley) to the Peninsula region. EPA believes these adjustments to the West Central and Peninsula stream region boundaries more accurately reflect the watershed boundaries and better reflect natural differences in underlying geological formations and expected stream chemistry.

In summary, EPA is finalizing numeric stream criteria for TN and TP for five separate Nutrient Watershed Regions (NWR): Panhandle West, Panhandle East, North Central, West Central and Peninsula (north of Lake Okeechobee, including the Caloosahatchee River Watershed to the west and the St. Lucie Watershed to the east). For a map of these regions, refer to "Technical Support Document for U.S. EPA's Final Rule for Numeric Criteria for Nitrogen/Phosphorus Pollution in Florida's Inland Surface Fresh Waters" (Chapter 1: Derivation of EPA's Numeric Criteria for Streams) included in the docket as part of the record for this final rule.

(b) Methodology for Calculating Instream Protective TN and TP Values

In the January 2010 proposal, EPA used a reference condition approach to derive numeric criteria that relied on the identification of biologically healthy sites that were unimpaired by nitrogen or phosphorus. EPA identified these sites from FDEP's streams data set, selecting sites where Stream Condition

[91] U.S. EPA. 2008. *Handbook for Developing Watershed Plans to Restore and Protect Our Waters.* EPA 841–B–08–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

Index (SCI) scores were 40 and higher. The SCI is a multi-metric index of benthic macroinvertebrate community composition and taxonomic data developed by FDEP to assess the biological health of Florida's streams.[92] An SCI score > 40 has been determined to be indicative of biologically healthy conditions based on an expert workshop and analyses performed by both FDEP and EPA. Please refer to the EPA's January 2010 proposal and the final TSD accompanying this final rule for more information on the SCI and the selection of the SCI value of 40 as an appropriate threshold to identify biologically healthy sites.

EPA further screened these sites by cross-referencing them with Florida's 2008 CWA section 303(d) list and excluded sites in waterbody identification numbers (WBIDs) with identified nutrient impairments or dissolved oxygen impairments. EPA grouped the remaining sites (hereinafter referred to as "SCI sites") according to the four proposed Nutrient Watershed Regions (Panhandle, North Central, West Central (referred to as Bone Valley at proposal), and Peninsula). For each NWR, EPA compiled data (TN and TP concentrations). EPA then calculated the average concentration at each site using all available samples. The resulting site average concentrations represent the distribution of nitrogen/phosphorus concentrations for each region. EPA found that while these sites were determined to be biologically healthy, the proposed SCI approach does not include information that can be directly related to an evaluation of least anthropogenically-impacted conditions (*e.g.*, a measure of land use surrounding a reference site), which can be used as a factor in identifying a minimally-impacted reference population for criteria development. For these reasons, EPA concluded the 75th percentile of the distribution of site average values was an appropriate threshold to use in the SCI approach for criteria derivation.

EPA requested comment on basing the TN and TP criteria for the Nutrient Watershed Regions on the SCI approach. The Agency also requested comment on an alternative approach that utilizes benchmark sites identified by FDEP. EPA received comments supporting the benchmark reference condition approach and the selection of the 90th percentile (generally) for deriving the TN and TP criteria. The criteria in this final rule are based on a further evaluation and more rigorous screening of the benchmark data set of reference sites using the population of least-disturbed benchmark sites developed by FDEP and further refined by EPA as discussed in the August 2010 supplemental notice. EPA concluded that the revised benchmark approach is an appropriate reference condition approach for deriving stream criteria because it utilizes a quantitative assessment of potential human disturbance through the use of surrounding land cover analysis of stream corridor and watershed land development indices that provide an added dimension to the benchmark approach not considered in EPA's proposed SCI site approach. EPA is finalizing stream criteria for most NWRs based on the benchmark approach with the addition of supplemental data screening steps to ensure that an evaluation of benchmark sites utilizes best available information representing reference conditions related to least-disturbed as well as and biologically healthy streams in the State. For this reason, EPA found the benchmark reference condition approach to be a compelling basis to support numeric criteria for Florida's streams more closely associated with least-disturbed sites. For the West Central region only, EPA is finalizing stream criteria based on SCI sites because the benchmark approach resulted in the identification of only one WBID as being least-disturbed. EPA found the SCI sites provide a more compelling basis to support numeric criteria in that region because more data are available at more sites that have been identified as biologically healthy, which provide a broader representation of nitrogen and phosphorus concentrations within this region.

For this final rule, EPA is using the large amount of high-quality scientific data available on TN and TP concentrations with corresponding information on land use and human disturbance for a wide variety of stream types as part of a reference condition approach to derive numeric criteria for Florida's streams. EPA used available data that are quantitative measures of land use, indicators of human disturbance, and site-specific evaluations of biological condition using a multi-metric biological index to identify a population of least-disturbed benchmark locations (benchmark sites). EPA used associated measurements of TN and TP concentrations from the benchmark sites and SCI sites (in the case of the West Central region) as the basis for deriving the final numeric criteria for streams.

The reference condition approach used in this final rule for streams consist of three steps: (1) Defining the reference population, (2) calculating a distribution of values, and (3) determining appropriate thresholds. For the first step as discussed above, EPA used the least-disturbed benchmark reference condition approach initially developed by FDEP to define the reference condition population, this approach starts with a query of FDEP's data in the STORET[93] (STOrage and RETrieval) and GWIS (Generalized Water Information System) databases and identified sites with data that met quality assurance standards.[94] Sites with data were then evaluated by FDEP to assess the level of human disturbance in the vicinity of the site using the Landscape Development Intensity Index (LDI)[95] to analyze a 100 meter distance of land on both sides of and 10 kilometers upstream of each stream site (*i.e.*, corridor LDI). Sites with stream corridor LDI scores less than or equal to two[96] were considered sites with relatively low potential human disturbance. The group of sites with LDI scores less than or equal to two were further reviewed and inspected by FDEP based on site visits and aerial photography to assess the degree of potential human impact. Based on this review, sites that FDEP determined had potential human impact were removed. Sites with mean nitrate concentrations greater than 0.35 mg/L, a concentration identified by several lines of evidence to result in the growth of excessive algae in laboratory studies and extensive field evaluations of spring and clear stream sites in Florida[97] were also removed. Following proposal and in response to additional comments and information, EPA further evaluated the benchmark sites and screened out additional sites with identified nutrient impairments or dissolved oxygen impairments according to Florida's 2008 CWA section 303(d) list. EPA also removed sites that have available watershed LDI scores greater than three as this reflects a higher level of human disturbance on

[92] The SCI method was developed and calibrated by FDEP. *See* Fore *et al.* 2007. *Development and Testing of Biomonitoring Tools for Macroinvertebrates in Florida Streams (Stream Condition Index and BioRecon).* Final prepared for the Florida Department of Environmental Protection, Tallahassee, FL.

[93] FL STORET can be found at: *http://www.dep.state.fl.us/WATER/STORET/INDEX.HTM.*

[94] Quality assurance review conducted by FDEP and detailed in EPA's accompanying Technical Support Document.

[95] Brown, M.T., and M.B. Vivas. 2005. Landscape Development Intensity Index. *Environmental Monitoring and Assessment* 101: 289–309.

[96] Brown, M.T., and M.B. Vivas. 2005. Landscape Development Intensity Index. *Environmental Monitoring and Assessment* 101: 289–309.

[97] *See* the springs criterion discussion below.

a watershed basis.[98] Finally, EPA removed benchmark sites that have available Stream Condition Index (SCI) scores less than 40. These additional screens provide greater confidence that the remaining sites are both least-disturbed and biologically healthy. The benchmark approach resulted in the identification of only one WBID as least-disturbed within the West Central region. For this reason, EPA is utilizing the SCI sites identified at proposal to define the reference population for the West Central region in this final rule. EPA grouped the remaining sites (hereinafter referred to as "reference sites") according to its Nutrient Watershed Regions (Panhandle West, Panhandle East, North Central, West Central, and Peninsula). For each NWR, EPA compiled data (TN and TP concentrations) from the reference sites.

The second step in deriving instream protection values was to calculate the distribution of nitrogen/phosphorus values of benchmark sites within each region. EPA calculated the geometric mean of the annual geometric mean of nitrogen/phosphorus concentrations for each WBID within which reference sites occurred. EPA provided notice and solicited comment on calculating streams criteria on the basis of WBIDs in the August 2010 supplemental notice. All samples from reference sites within those WBIDs were used to calculate the annual geometric mean. The geometric mean of this annual geometric mean for each WBID is utilized so that each WBID represents one average concentration in the distribution of concentrations for each NWR. Geometric means were used for all averages because concentrations were log-normally distributed.

The third step in deriving instream protection values was to determine appropriate thresholds from these distributions to support balanced natural populations of aquatic flora and fauna. The upper end of the distribution (the 90th percentile) is appropriate if there is confidence that the distribution reflects minimally-impacted reference conditions and can be shown to be supportive of designated uses (*i.e.*, balanced natural populations of aquatic flora and fauna).[99] EPA concluded that the benchmark data set and the resulting benchmark distributions of TN and TP were based on substantial evidence of least-disturbed reference conditions after the additional quality assurance screens applied by EPA. This analysis provides EPA with the confidence that the benchmark sites are least-disturbed sites and with the additional screens applied by the Agency provide a basis for the use of the 90th percentile of values from this population to establish the final rule criteria. It is appropriate to use the 90th percentile for the benchmark distribution because the least-disturbed sites identified in Florida that are used to derive the criteria more closely approximate minimally-impacted conditions.[100] For the West Central region, where reference sites are identified using the SCI approach, there is less confidence that these sites are least-disturbed and represent minimally-impacted conditions. As mentioned above, this is because this approach does not rely on a quantitative assessment of potential human disturbance through the use of surrounding land cover analysis of stream corridor and watershed land development indices. Therefore, EPA is finalizing the stream criteria in the West Central region using the 75th percentile values of the distribution from the SCI sites.[101]

EPA's approach in this final rule results in numeric criteria that are protective of a balanced natural population of aquatic flora and fauna in Florida's streams. EPA has determined, however, that these instream values may not always ensure the attainment and maintenance of WQS in downstream lakes and that more stringent criteria may be necessary to assure compliance with 40 CFR 131.10(b). Therefore, EPA is finalizing an approach in this rule for deriving TN and TP values for streams to ensure the attainment and maintenance of WQS in downstream lakes.[102] This approach is discussed in Section III.C(2)(f).

(c) Duration and Frequency

Aquatic life water quality criteria contain three components: Magnitude, duration, and frequency. For the numeric TN and TP criteria for streams, the derivation of the criterion-magnitude values is described above and these values are provided in the table in Section III.B(1). The duration component of these stream criteria is specified in *footnote a* of Table B–1 as an annual geometric mean. EPA is finalizing the proposed frequency component as a no-more-than-one-in-three-years excursion frequency for the annual geometric mean criteria for streams. These duration and frequency components of the criteria are consistent with the data set used to derive these criteria, which applied distributional statistics to measures of annual geometric mean values from multiple years of record. EPA has determined that this frequency of excursions will not result in unacceptable effects on aquatic life as it will allow the stream ecosystem enough time to recover from occasionally elevated levels of nitrogen/phosphorus in the stream.[103] [104] [105] These selected duration and frequency components recognize that hydrological variability (*e.g.*, high and low flows) will produce variability in nitrogen and phosphorus concentrations, and that individual measurements may at times be greater than the criteria magnitude concentrations without causing unacceptable effects to aquatic organisms and their uses. Furthermore, the frequency and duration components balance the representation of underlying data and analyses based on the central tendency of many years of data with the need to exercise some caution to ensure that streams have sufficient time to process individual years of elevated nitrogen and phosphorus levels and

[98] The threshold value for watershed LDI is higher than the threshold value for the corridor LDI because human disturbance in the watershed is known to more weakly influence in-stream nitrogen/phosphorus concentrations than human disturbance in the stream corridor (Peterjohn, W.T. and D. L. Correll. 1984. Nutrient dynamics in an agricultural watershed: Observations on the role of a riparian forest. *Ecology* 65: 1466–1475).

[99] USEPA. 2008. *Nutrient Criteria Technical Guidance Manual: Wetlands.* EPA–822–B–08–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[100] The 90th percentile is selected so that nitrogen/phosphorus concentrations that are above the criterion value have a low probability (< 10%) of being observed in sites that are similar to benchmark sites.

[101] USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams.* EPA–822–B–00–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

These percentages were initially proposed by FDEP. *See* FDEP. 2009. *Draft Technical Support Document: Development of Numeric Nutrient Criteria for Florida's Lakes and Streams.* Florida Department of Environmental Protection, Standards and Assessment Section. Available electronically at: *http://www.dep.state.fl.us/water/wqssp/nutrients/docs/tsd_nutrient_crit.docx*. Accessed October 2010.

[102] EPA will propose and request comment on the comparable issue for deriving TN and TP values for streams to ensure the attainment and maintenance of WQS in downstream estuaries as part of the coastal and estuarine waters rule on November 14, 2011.

[103] USEPA. 1985. *Guidelines for Deriving Numeric National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses.* EPA PB85–227049. U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratories.

[104] Hutchens, J. J., K. Chung, and J. B. Wallace. 1998. Temporal variability of stream macroinvertebrate abundance and biomass following pesticide disturbance. *Journal of the North American Benthological Society* 17:518–534.

[105] Wallace, J.B, D. S.Vogel, and T.F. Cuffney. 1986. Recovery of a headwater stream from an insecticide induced community disturbance. Journal of North American Benthological Society 5: 115–1 26.

avoid the possibility of cumulative and chronic effects (*i.e.*, the no-more-than-one-in-three-year component). More information on this specific topic is provided in EPA's Final Rule TSD for Florida's Inland Waters, Chapter 1: Methodology for Deriving U.S. EPA's Criteria for Streams located in the record for this final rule.

d. Reference Condition Approach

In deriving the final criteria for streams, EPA has relied on a reference condition approach, which has been well documented, peer reviewed, and developed in a number of different contexts.[106] [107] [108] [109] [110] In the case of Florida, this approach is supported by a substantial Florida-specific database of high quality information, sound scientific analysis and extensive technical evaluation.

EPA received comments regarding the scientific defensibility of the reference condition approach, using either the benchmark sites or the SCI sites. Many commenters observed that such approaches do not mechanistically link biological effects to nitrogen/phosphorus levels and therefore assert that EPA cannot scientifically justify numeric criteria without an observed biological effect. EPA views the reference condition approach as scientifically appropriate to derive the necessary numeric criteria in Florida streams. Reference conditions provide the appropriate benchmark against which to determine the nitrogen and phosphorus concentrations present when the designated use is being met. When the natural background concentrations of specific parameters can be defined by identifying reference conditions at anthropogenically-undisturbed sites, then the concentrations at these sites can be considered as sufficient to support the aquatic life expected to occur naturally at that site.[111] Also, setting criteria based on the conditions observed in reference condition sites reflects both the stated goal of the Clean Water Act and EPA's National Nutrient Strategy that calls for States, including Florida, to take protective and preventative steps in managing nitrogen/phosphorus pollution to maintain the chemical, physical and biological integrity of the Nation's waters before adverse biological and/or ecological effects are observed.[112]

The effects of TN and TP on an aquatic ecosystem are well understood and documented. There is a substantial and compelling scientific basis for the conclusion that excess TN and TP will have adverse effects on streams[113] [114] [115] [116] [117] [118] [119] [120] [121] [122] [123] [124] [125] [126] [127]. As discussed in Section II above, excess nitrogen/phosphorus in streams, like other aquatic ecosystems, increase vegetative growth (plants and algae), and change the assemblage of plant and algal species present in the system. These changes can affect the organisms that are consumers of algae and plants by altering the balance of food resources available to different trophic levels. For example, excess nitrogen/phosphorus promotes the growth of opportunistic and short-lived plant species that die quickly leaving more dead vegetative material available for consumption by lower tropic levels. Additionally, excess nitrogen/phosphorus can promote the growth of less palatable nuisance algae species that results in less food available for filter feeders. These changes can also alter the habitat structure by covering the stream or river bed with periphyton (attached algae) rather than submerged aquatic plants, or clogging the water column with phytoplankton (floating algae). In addition, excess nitrogen/phosphorus can lead to the production of algal toxins that can be toxic to fish, invertebrates, and humans. Chemical characteristics of the water, such as pH and concentrations of dissolved oxygen (DO), can also be affected by excess nitrogen/phosphorus leading to low DO conditions and hypoxia. Each of these changes can, in turn, lead to other changes in the stream community and, ultimately, to changes in the stream ecology that supports the overall function of the linked aquatic ecosystem.

[106] USEPA. 2000a. *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs.* EPA–822–B–00–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[107] USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams.* EPA–822–B–00–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[108] Stoddard, J. L., D. P. Larsen, C. P. Hawkins, R. K. Johnson, and R. H. Norris. 2006. Setting expectations for the ecological condition of streams: the concept of reference condition. *Ecological Applications* 16:1267–1276.

[109] Herlihy, A. T., S. G. Paulsen, J. Van Sickle, J. L. Stoddard, C. P. Hawkins, L. L. Yuan. 2008. Striving for consistency in a national assessment: the challenges of applying a reference-condition approach at a continental scale. *Journal of the North American Benthological Society* 27:860–877.

[110] U.S. EPA. 2001. Nutrient Criteria Technical Manual: Estuarine and Coastal Marine Waters. Office of Water, Washington, DC. EPA–822–B–01–003.

[111] Davies, T.T., USEPA. 1997, November 5. Memorandum to Water Management Division Directors, Regions 1–10, and State and Tribal Water Quality Management Program Directors on Establishing Site Specific Aquatic Life Criteria Equal to Natural Background.

[112] USEPA. 1998. *National Strategy for the Development of Regional Nutrient Criteria.* EPA 822–R–98–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC; Grubbs, G., USEPA. 2001, November 14. Memorandum to Directors of State Water Programs, Directors of Great Water Body Programs, Directors of Authorized Tribal Water Quality Standards Programs and State and Interstate Water Pollution Control Administrators on Development and Adoption of Nutrient Criteria into Water Quality Standards.; Grumbles, B.H., USEPA. 2007, May 25.Memorandum to Directors of State Water Programs, Directors of Great Water Body Programs, Directors of Authorized Tribal Water Quality Standards Programs and State and Interstate Water Pollution Control Administrators on Nutrient Pollution and Numeric Water Quality Standards.

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[123] Peterson, B.J., J.E. Hobbie, A.E. Hershey, M.A. Lock, T.E. Ford, J.R. Vestal, V.L. McKinley, M.A.J. Hullar, M.C. Miller, R.M. Ventullo, and G. S. Volk. 1985. Transformation of a tundra river from heterotrophy to autotrophy by addition of phosphorus. *Science* 229:1383–1386

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C. Numeric Criteria for the State of Florida's Lakes

(1) Final Rule

EPA is promulgating numeric criteria for chlorophyll *a*, TN and TP in three classes of Florida's lakes, classified as Class I or III waters under Florida law (Section 62–302.400, F.A.C.):

TABLE C–17—EPA'S NUMERIC CRITERIA FOR FLORIDA LAKES

Lake color [a] and alkalinity	Chl-a (mg/L) [b] *	TN (mg/L)	TP (mg/L)
Colored Lakes [c]	0.020	1.27 [1.27–2.23]	0.05 [0.05–0.16]
Clear Lakes, High Alkalinity [d]	0.020	1.05 [1.05–1.91]	0.03 [0.03–0.09]
Clear Lakes, Low Alkalinity [e]	0.006	0.51 [0.51–0.93]	0.01 [0.01–0.03]

[a] Platinum Cobalt Units (PCU) assessed as true color free from turbidity.
[b] Chlorophyll *a* is defined as corrected chlorophyll, or the concentration of chlorophyll *a* remaining after the chlorophyll degradation product, phaeophytin *a*, has been subtracted from the uncorrected chlorophyll *a* measurement.
[c] Long-term Color > 40 Platinum Cobalt Units (PCU).
[d] Long-term Color ≤ 40 PCU and Alkalinity > 20 mg/L $CaCO_3$.
[e] Long-term Color ≤ 40 PCU and Alkalinity ≤ 20 mg/L $CaCO_3$.
* For a given waterbody, the annual geometric mean of chlorophyll *a*, TN or TP concentrations shall not exceed the applicable criterion concentration more than once in a three-year period.

For each class of water defined by color and alkalinity, the applicable criteria are the values in **bold** for chlorophyll *a*, TN and TP. The criteria framework provides flexibility for FDEP to derive lake-specific, modified TN and TP criteria if the annual geometric mean chlorophyll *a* concentration is less than the criterion for an individual lake in each of the three immediately preceding years. In such a case, the corresponding criteria for TN and/or TP may be modified to reflect maintenance of ambient conditions within the range specified in the parenthetical below each baseline TN and TP criteria printed in bold in Table C–1 above. Modified criteria for TN and/or TP must be based on data from at least the immediately preceding three years [128] in a particular lake. Modified TN and/or TP criteria may not be greater than the higher value specified in the range. Modified TN and/or TP criteria for a lake also may not be above criteria applicable to streams to which a lake discharges in order to ensure the attainment and maintenance of downstream water quality standards.

Utilization of the range flexibility in the numeric lake criteria in this final rule requires that the ambient calculation for modified TN and TP criteria be based on: (1) The immediately preceding three-year record of observation for each parameter,[129] (2) representative sampling during each year (at least one sample in May–September and at least one sample in October–April), and (3) a minimum of 4 samples from each year. Requiring at least three years of data accounts for year-to-year hydrological variability, ensures longer-term stable conditions, and appropriately accounts for anomalous conditions in any given year that could lead to erroneous conclusions regarding the true relationship between nitrogen/phosphorus and chlorophyll *a* levels in a lake. Representative samples from each year minimize the effects of seasonal variations in nitrogen/phosphorus and chlorophyll *a* concentrations. Finally, the minimum sample size of 4 samples per year allows estimates of reliable geometric means while still maintaining a representative sample of lakes. The State shall notify EPA Region 4 and provide the supporting record within 30 days of determination of modified lake criteria.

To ensure attainment of applicable downstream lake criteria, this final rule provides a tiered approach for adjusting instream criteria presented in section III.B.(1) above for those streams that flow into lakes.[130] Where site-specific data on lake characteristics are available, the final rule provides a modeling approach for the calculation of downstream lake protection values that relies upon the use of the BATHTUB model.[131] In circumstances where sufficient site-specific lake data are readily available and either EPA or FDEP determine that another scientifically defensible model is more appropriate (*e.g.*, the Water Quality Analysis Simulation Program, or WASP), the modeling approach accommodates use of a scientifically defensible alternative. In the absence of models, other approaches for ensuring protection of downstream lakes are provided and described further below.

(2) Background and Analysis

(a) Methodology for Lake Classification

In the January 2010 proposal, EPA used color and alkalinity to classify Florida's lakes based on substantial data demonstrating that these characteristics influence the response of lakes to increased nitrogen/phosphorus and the expected background chlorophyll *a* concentration. Many of Florida's lakes contain dissolved organic matter leached from surface vegetation that

[128] The previous three years of data are required as a basis for modifying TN and TP criteria and must meet FDEP's data quality assurance objectives. Additional historical data may be used to augment the three years of data characterizing the lake's annual and inter-annual variability. Only historical data containing data for all three parameters can be used and the data must meet FDEP's data quality assurance objectives.

[129] As noted above, if more than three years of data are available for each parameter, then more data can be used.

[130] Approximately 30% of Florida lakes are fed by streams to which this DPV analysis would apply (Schiffer, Donna M. 1998. *Hydrology of Central Florida Lakes—A Primer.* U.S. Geological Survey in cooperation with SJWMD and SFWMD: Circular 1137).

[131] Kennedy, R.H. 1995. *Application of the BATHTUB model to Selected Southeastern Reservoirs.* Technical Report EL–95–14. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.; Walker, W.W., 1985. *Empirical Methods for Predicting Eutrophication in Impoundments; Report 3, Phase II: Model Refinements.* Technical Report E–81–9. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.; Walker, W.W., 1987. *Empirical Methods for Predicting Eutrophication in Impoundments; Report 4, Phase III: Applications Manual.* Technical Report E–81–9. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

colors the water. More color in a lake limits light penetration within the water column, which in turn limits algal growth. Thus, in lakes with colored water, higher levels of nitrogen/phosphorus may occur without exceeding the chlorophyll *a* criteria concentrations. EPA evaluated relationships among TN, TP, and chlorophyll *a* concentration data, and found that lake color influenced these relationships. More specifically, EPA found the correlations between nitrogen/phosphorus and chlorophyll *a* concentrations to be stronger and less variable when lakes were categorized into two distinct groups based on a color threshold of 40 PCU, with clear lakes demonstrating more algal growth with increased nitrogen/phosphorus, as would be predicted by the increased light penetration. This threshold is consistent with the distinction between clear and colored lakes long observed in Florida.[132]

Within the clear lakes category, color is not the dominant controlling factor in algal growth. For these clear lakes, EPA proposed the use of alkalinity as an additional distinguishing characteristic. Alkalinity and pH increase when water is in contact with carbonate rocks, such as limestone, or limestone-derived soil in the State of Florida. Limestone is also a natural source of phosphorus, and thus, in Florida, lakes that are higher in alkalinity are often associated with naturally elevated TP levels. The alkalinity (measured as $CaCO_3$ concentration) of Florida clear lakes ranges from zero to over 200 mg/L. EPA proposed classifying clear Florida lakes into acidic and alkaline classes based on an alkalinity threshold of 50 mg/L $CaCO_3$, and solicited comment on whether a 20 mg/L $CaCO_3$ threshold would be more appropriate. EPA received comments noting that that the lower alkalinity classification threshold would be more representative of naturally oligotrophic conditions by creating a class of lakes with very low alkalinity and correspondingly low chlorophyll *a* concentrations. After reviewing available lake data, EPA found that clear lakes below 20 mg/L $CaCO_3$ were more similar to one another in terms of naturally expected chlorophyll *a*, TN, and TP concentrations than clear lakes below 50 mg/L $CaCO_3$. Thus, EPA concluded that an alkalinity threshold of 20 mg/L $CaCO_3$ was an appropriate threshold for classifying clear lakes and EPA is finalizing the lower alkalinity threshold in this rule. More information on this specific topic is provided in EPA's Finals TSD for Florida's Inland Waters, Chapter 2: Methodology for Deriving U.S. EPA's Criteria for Lakes located in the record for this final rule.

EPA also proposed the use of specific conductance as a surrogate for alkalinity. EPA received comments that conductivity was not an accurate surrogate measure for alkalinity. EPA evaluated the association between specific conductivity and alkalinity and concluded that alkalinity is a preferred parameter for lake classification because it is a more direct measure of the presence of carbonate rocks, such as limestone that are associated with natural elevated phosphorus levels. Changes in specific conductivity can be attributed to changes in alkalinity, but in many cases may be caused by increases in the concentrations of other compounds that originate from human activities. Thus, EPA has concluded that alkalinity is a more reliable indicator for characterizing natural background conditions for Florida lakes.

A number of comments suggested EPA consider a system that delineates 47 lake regions and a system that classifies lakes as a continuous function of both alkalinity and color. As discussed in more detail in the TSD supporting this final rule, EPA evaluated each of these alternative classification approaches, and found that they did not improve the predictive accuracy of biological responses to nitrogen/phosphorus over EPA's classification, nor result in a practical system that can be implemented by FDEP. For example, in the case of the 47 lake region approach, insufficient data are available to derive numeric criteria across all of the 47 regions and in the case of the continuous function approach there is a reliance on an assumption that TN and TP are always co-limiting that is not always true.[133]

A number of commenters suggested that lake-specific criteria would be more appropriate than the three broad classes that EPA proposed. The substantial data available in the record for this final rule supports the conclusion that many of Florida's lakes share similar physical, chemical, and geological characteristics, which in turn justifies, based on sound scientific evidence, broad classification of Florida lakes. EPA concluded, based on the substantial data and associated analysis explained above, that color and alkalinity are primary distinguishing factors in Florida lakes with respect to nitrogen/phosphorus dynamics and the associated biological response. With respect to consideration of site-specific information that goes beyond the detailed site-specific sampling and monitoring analysis already discussed,[134] the numeric lake criteria in this final rule are established within a flexible regulatory framework that allows adjustment of TN, TP, and/or chlorophyll *a* criteria based on additional lake-specific data. This framework provides an opportunity to derive lake-specific criteria similar to the manner suggested in public comment, where lake-specific data and information are available, while ensuring that numeric criteria are in place to protect all of Florida's lakes. Further site-specific flexibility is provided in this final rule through the derivation of alternative criteria by a Federal Site Specific Adjusted Criteria (SSAC) process discussed in more detail below in Section V.C.

In this final rule, EPA is dividing Florida's lakes into three classes: (1) Colored Lakes >40 Platinum Cobalt Units (PCU), (2) Clear, High Alkalinity Lakes (≤40 PCU with alkalinity >20 mg/L calcium carbonate ($CaCO_3$)), and (3) Clear, Low Alkalinity Lakes (≤40 PCU with alkalinity ≤20 mg/L $CaCO_3$). These two parameters, color and alkalinity, both affect lake productivity and plant biomass, as measured by chlorophyll *a*. For more information regarding these classes, please refer to EPA's Final Rule TSD for Florida's Inland Waters, Chapter 2: Methodology for Deriving U.S. EPA's Criteria for Lakes.

(b) Methodology for Chlorophyll *a* Criteria

EPA proposed the use of chlorophyll *a* concentration as an indicator of a healthy biological condition, supportive of natural balanced populations of aquatic flora and fauna in each of the classes of Florida's lakes. Excess algal growth is associated with degradation in aquatic life, and chlorophyll *a* levels are a measure of algal growth. To derive the proposed chlorophyll *a* concentrations that would be protective of natural balanced populations of aquatic flora and fauna in Florida's lakes, EPA utilized the expected trophic status of the lake, based on internationally accepted lake use classifications.[135]

[132] Shannon, E.E., and P.L. Brezonik. 1972. Limnological characteristics of north and central Florida lakes. Limnology and Oceanography 17(1): 97–110.

[133] Guildford, S. J. and R. E. Hecky. 2000. Total nitrogen, total phosphorus, and nutrient limitation in lakes and oceans: Is there a common relationship? *Limnology and Oceanography* 45: 1213–1223.

[134] Technical Support Document for EPA's Final Rule for Numeric Nutrient Criteria for Nitrogen/Phosphorus Pollution in Florida's Inland Surface Fresh Waters.

[135] OECD. 1982. *Eutrophication of Waters. Monitoring, Assessment and Control.* Organisation

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As discussed in more detail at proposal, lakes can be classified into one of three trophic State categories (*i.e.*, oligotrophic, mesotrophic, eutrophic).[136] EPA concluded at proposal that healthy colored lakes and clear, high alkalinity lakes should maintain a mesotrophic status, because they receive significant natural nitrogen/phosphorus input and still support a healthy diversity of aquatic life in warm, productive climates such as Florida. For these two categories of lakes, EPA proposed a chlorophyll *a* criterion of 0.020 mg/L to support balanced natural populations of aquatic life flora and fauna. At concentrations above 0.020 mg/L chlorophyll *a*, the trophic status of the lake is more likely to become eutrophic and the additional chlorophyll *a* will reduce water clarity, negatively affecting native submerged macrophytes, and the invertebrate and fish communities that depend on them. Commenters suggested that this threshold is overly protective of naturally eutrophic lakes in the State. For those lakes that may currently be naturally eutrophic, this final rule contains a formal SSAC process to revise these criteria for this unique type of lake. For more information on the SSAC process, please refer to Section V.C of this final rule.

In contrast, clear, low alkalinity lakes in Florida do not receive natural nitrogen/phosphorus input from underlying geological formations in the watershed and thus, they support less algal growth and have lower chlorophyll *a* levels than colored or clear, high alkalinity lakes. EPA concluded at proposal that these lakes should maintain an oligotrophic status to support balanced natural populations of aquatic flora and fauna. EPA proposed a chlorophyll *a* criterion of 0.006 mg/L in clear, low alkalinity lakes to support balanced natural populations of aquatic life flora and fauna. At concentrations above 0.006 mg/L chlorophyll *a*, the trophic status of the lake is more likely to become mesotrophic and the additional chlorophyll *a* will reduce water clarity, negatively affecting native submerged macrophytes, and the invertebrate and fish communities that depend on them. Commenters suggested that this chlorophyll *a* concentration may not be appropriate for clear lakes with alkalinity less than 50 mg/L. As explained in more detail above, in this final rule EPA concluded that 20 mg/L is an appropriate threshold between low and high alkalinity lakes. Thus, lakes with alkalinity greater than 20 mg/L will have a chlorophyll *a* criterion that is applicable to clear, high alkalinity lakes. Based on the revision of the alkalinity threshold to 20 mg/L, EPA reviewed the available chlorophyll *a* data for clear, low alkalinity lakes and found that the majority of lakes have chlorophyll *a* concentrations less than 0.006 mg/L reflective of oligotrophic conditions which leads EPA to conclude that this chlorophyll *a* concentration will serve to maintain the trophic status of these lakes.

In this final rule, EPA is promulgating chlorophyll *a* criteria of 0.020 mg/L in colored lakes and clear, high alkalinity lakes and a chlorophyll *a* criterion of 0.006 mg/L in clear, low alkalinity lakes as an indicator of a healthy biological condition, supportive of natural balanced populations of aquatic flora and fauna in these classes of Florida's lakes. For more information regarding these chlorophyll *a* criteria, please refer to EPA's Final Rule TSD for Florida's Inland Waters, Chapter 2: Methodology for Deriving U.S. EPA's Criteria for Lakes.

(c) Methodology for Total Nitrogen (TN) and Total Phosphorus (TP) Criteria in Lakes

EPA proposed TN and TP criteria for each of the classes of lakes described in Section III.C(2)(a) based on the response of chlorophyll *a* to increases in TN and TP for clear and colored lakes in Florida. These responses were quantitatively estimated with linear regressions. Each data point used in estimating the statistical relationships was the geometric mean of samples taken over the course of a year in a particular Florida lake. Statistical analyses of these relationships showed that the chlorophyll *a* responses to changes in TN and TP differed for colored versus clear lakes, as would be expected, because color blocks light penetration in the water column and limits algal growth. These analyses also showed that chlorophyll *a* responds to changes in TN and TP in high and low alkalinity clear lakes similarly, as would be expected, because alkalinity does not affect light penetration. These relationships were used to derive TN and TP criteria that would maintain chlorophyll *a* concentrations at desired levels known to be supportive of balanced natural populations of aquatic flora and fauna as discussed above. These analyses are explained in more detail in EPA's Final Rule TSD for Florida's Inland Waters, Chapter 2: Methodology for Deriving U.S. EPA's Criteria for Lakes included in the record for this final rule.

EPA proposed baseline TN and TP criteria based on the 75th percentile of the predicted distribution of chlorophyll *a* concentrations, given a TN or TP concentration. Commenters suggested alternative approaches for deriving TN and TP criteria, including using either the mean predicted chlorophyll *a* concentration, using the 25th percentile of the predicted distribution of chlorophyll *a* concentrations, and using an additional criterion based on a higher percentile that is associated with a different exceedance frequency. EPA considered these alternative approaches and concluded that calculating the TN and TP criteria as a baseline concentration with an associated concentration range was a more flexible approach than a single value approach manifested as the TN and TP concentration associated with a specific chlorophyll *a* concentration. Thus, the approach included in this final rule takes into account the natural variability observed in different classes of lakes (*i.e.*, colored or clear) in a way that a single value approach based on the regression line or the lower value of the 50th percentile prediction interval does not.

In this final rule, the TN and TP criteria are based on linear regressions (*i.e.*, best-fit lines) predicting the annual geometric mean chlorophyll *a* concentration as a function of the annual geometric mean TN or TP. Baseline TN and TP criteria are calculated as the point at which the 75th percentile of the predicted distribution of chlorophyll *a* concentrations from the regression relationship is equivalent to the chlorophyll *a* criterion for the appropriate lake class. The range of values in the predicted distribution of chlorophyll *a* concentrations arises from small differences in the nitrogen/phosphorus–chlorophyll *a* relationships across different lakes and variability in these relationships between years in the same lake. Hence, TN and TP criteria are based on the 75th percentile that will be protective at the majority of lakes and in the majority of years.

The predicted distribution of chlorophyll *a* concentrations for lakes differs inherently from the distribution of TN and TP concentrations calculated from reference sites for criteria for Florida streams (Section III.B(2)(b)). In the case of the criteria for Florida streams for most NWRs, benchmark sites represent a population of least-

for Economic Development and Co-Operation, Paris, France.

[136] Trophic state describes the nitrogen/phosphorus levels and algal state of an aquatic system: Oligotrophic (low nitrogen/phosphorus and algal productivity), mesotrophic (moderate nitrogen/phosphorus and algal productivity), and eutrophic (high nitrogen/phosphorus and algal productivity).

disturbed sites and the criteria based on the 90th percentile of nitrogen and phosphorus concentrations from these sites are selected to characterize the upper bound of nitrogen/phosphorus concentrations that one would expect from such sites. Criteria for Florida lakes rely on a predictive relationship between nitrogen/phosphorus and chlorophyll *a* concentrations, and the 75th percentile is selected from the distribution of chlorophyll *a* concentrations predicted for *specific* concentrations of TN and TP. As discussed above, basing criteria on this percentile provides a means of accounting for variability in chlorophyll *a* concentrations predicted for a given TN and TP concentration. In short, the percentile for the streams criteria is selected to ensure that nitrogen/phosphorus concentrations in all streams are at least as low as those observed in reference streams, whereas the percentile for the lakes criteria is selected such that concentrations appropriately account for variability in the relationships between nitrogen/phosphorus and chlorophyll *a* concentrations.

(d) Duration and Frequency

Aquatic life water quality criteria include magnitude, duration, and frequency components. For the chlorophyll *a*, TN, and TP criteria for lakes, the criterion-magnitude values, expressed as a concentration, are provided in Table C–1 in bold. The criterion-duration of this magnitude is specified in a footnote to this Table as an annual geometric mean. EPA is finalizing the criterion-frequency as a no-more-than-once-in-three-years excursion frequency of the annual geometric mean criteria for lakes. The duration component of the criteria is based on annual geometric means to be consistent with the data set used to derive these criteria, which applied stressor-response relationships based on annual geometric means for individual years at individual lakes. These selected duration and frequency components recognize that hydrological variability (*e.g.*, high and low flows) will produce variability in nitrogen and phosphorus concentrations, and that individual measurements may at times be greater than the criterion-magnitude concentrations without causing unacceptable effects to aquatic organisms and their uses. Furthermore, they balance the representation of the central tendency of the predicted relationship between TN or TP and chlorophyll *a* based from many years of data with the need to exercise some caution to ensure that lakes have sufficient time to process individual years of elevated nitrogen and phosphorus concentrations and avoid the possibility of cumulative and chronic effects (*i.e.*, the no-more-than-one-in-three-year component). Additionally, because nitrogen/phosphorus pollution is best managed on a watershed basis, this is the same frequency and duration used in the final streams criteria. More information on this specific topic is provided in EPA's Final Rule TSD for Florida's Inland Waters, Chapter 2: Methodology for Deriving U.S. EPA's Criteria for Lakes located in the record for this final rule.

(e) Application of Lake-Specific, Ambient Condition-Based Modified TN and TP Criteria

EPA proposed an accompanying approach that the State could use to adjust TN and TP criteria for a particular lake within a certain range where sufficient data on long-term ambient chlorophyll *a*, TN and TP levels are available to demonstrate that protective chlorophyll *a* criterion for a specific lake will still be maintained and a balance of natural populations of aquatic flora and fauna will be supported. This approach allows for readily available site-specific data to be taken into account in the expression of TN and TP criteria, while still ensuring support of balanced natural populations of aquatic flora and fauna by maintaining the associated chlorophyll *a* level at or below the chlorophyll *a* criterion level. The scientific premise for the lake-specific ambient calculation provision for modified TN and/or TP criteria is that if ambient lake data show that a lake's chlorophyll *a* levels are at or below the established criteria (*i.e.*, magnitude) for at least the last three years and its TN and/or TP levels are within the lower and upper bounds, then those ambient levels of TN and TP represent conditions that will continue to support the specified chlorophyll *a* response level. The lower bound of the range is based on the TN/TP values that correspond to the 75th percentile of the predicted chlorophyll *a* distribution and the upper bound of the range is based on the TN/TP values that correspond to the 25th percentile of the same predicted distribution. The use of the 25th and 75th percentiles accounts for the majority of variability that may occur around the central tendency of the predicted relationship between TN or TP and chlorophyll *a*.

This final rule provides that FDEP must establish and document these modified criteria in a manner that clearly recognizes their status as the applicable criteria for a particular lake. To this end, FDEP must submit a letter to EPA Region 4 formally documenting the use of modified criteria as the applicable criteria for particular lakes. This final rule allows for a one-time adjustment without a requirement that FDEP go through a formal SSAC process. EPA believes that such modified TN and TP criteria do not need to go through the SSAC process because the conditions under which they are applicable are clearly stated in this final rule and data requirements are clearly laid out so that the outcome is clear, consistent, transparent, and reproducible. By providing a specific process for deriving modified criteria within the WQS rule itself, each individual outcome of this process is an effective WQS for CWA purposes and does not need separate adoption by FDEP or approval by EPA. For more information on the SSAC process, please refer to Section V.C of this final rule.

Application of the ambient calculation provision has implications for assessment and permitting because the outcome of applying this provision is to establish alternate numeric TN and/or TP values as the applicable lake criteria. For accountability and tracking purposes, the State must document the result of the ambient calculation for any given lake. Once modified criteria are established under this approach, they remain the applicable criteria for the long-term for purposes of implementing the State's water quality program until they are subsequently modified either through the Federal SSAC process or State revision to the applicable WQS, which has been approved by EPA pursuant to CWA section 303(c).

This site-specific lake criteria adjustment provision is subject to the downstream protection requirements more broadly discussed below. Thus in a comparable manner this final rule provides that calculated TN and/or TP values in a lake that discharges to a stream may not exceed criteria applicable to the stream to which a lake discharges.

(f) Downstream Protection of Lakes

In developing the proposed stream criteria, EPA also evaluated their effectiveness for assuring the protection of downstream lake water quality standards pursuant to the provisions of 40 CFR 130.10(b), which requires that WQS must provide for the attainment and maintenance of the WQS of downstream waters.[137] EPA's criteria for

[137] EPA will assess the effectiveness of final stream criteria for assuring the protection of

Continued

lakes are, in some cases, more stringent than the final criteria for streams that flow into the lakes, and thus the instream criteria may not be stringent enough to ensure protection of WQS in certain downstream lakes. As a result, EPA proposed application of the Vollenweider equation to ensure that the TP criteria in streams are protective of downstream lakes, and requested comment on alternative approaches such as the BATHTUB model and whether there should be an allowance for use of other models that are demonstrated to be protective and scientifically defensible.

The proposed use of the Vollenweider model equation to ensure the protection of downstream lakes requires input of two lake-specific characteristics: the fraction of inflow due to stream flow and the hydraulic retention time. EPA provided alternative preset values for percent contribution from stream flow and hydraulic retention time that could be used in those instances where lake-specific input values are not readily available. EPA's January 2010 proposed rule discussed the flexibility for the State to use site-specific inputs to the Vollenweider equation for these two parameters, as long as the State determines that such inputs are appropriate and documents the site-specific values. Some commenters stated that the Vollenweider equation is overly simplistic and does not include the necessary factors to account for physical, hydrologic, chemical, and biological processes necessary to determine protective criteria. Several commenters also suggested the need for TN values to protect downstream lakes that are nitrogen-limited (such as many of the lakes in the phosphorus-rich areas of the State). Comments included a recommendation to use models that can better represent site-specific conditions, such as BATHTUB.

EPA's August 2010 Supplemental Notice of Data Availability and Request for Comment requested additional comment on using the BATHTUB model in place of the Vollenweider equation for deriving both TP and TN criteria to protect downstream lakes, allowing the use of alternative models under certain circumstances, and providing for an alternative approach to protect downstream lakes when limited data are available that would use the lake criteria themselves as criteria for upstream waters flowing into the lake.

downstream estuaries in a separate rulemaking that focuses on estuarine and coastal waters to be proposed by November 14, 2011 and finalized by August 15, 2012.

In the final rule, protection of downstream lakes is accomplished through establishment of a downstream protection value (DPV). The applicable criteria for streams that flow into downstream lakes include both the instream criteria for TN and TP and the DPV, which is a concentration or loading value at the point of entry into a lake that results in attainment of the lake criteria. EPA selected the point of entry into the lake, also referred to as the "pour point," as the location to measure water quality because the lake responds to the input from the pour point and all contributions from the stream network above this point in a watershed affect the water quality at the pour point. When a DPV is exceeded at the pour point, the waters that collectively comprise the network of streams in the watershed above that pour point are considered to not attain the DPV for purposes of section 303(d) of the Clean Water Act. The State may identify these impaired waters as a group rather than individually.

It is appropriate to express the DPV as either a load or concentration (load divided by flow) because both are expressions of the amount of TN and TP that are delivered to the downstream water. In an expression of load, the amount is expressed directly as mass per time (*e.g.*, pounds per year), whereas a concentration expresses the amount in terms of the mass contained in a particular volume of water (*e.g.*, milligrams per liter). Either expression may be used for assessment and source control allocation purposes. Calculating a DPV as a load will require modeling or other technical information, such as a TMDL, that accounts for both the volume of the receiving water and the flow contributed through the pour point. A DPV expressed as a concentration may be based on a model or TMDL or may reflect a TN or TP level that corresponds to a TN, TP, or chlorophyll *a* concentration that protects the lake.

Contributions of TN and/or TP from sources in stream tributaries upstream of the point of entry are accountable to the DPV because the water quality in the stream tributaries must result in attainment of the DPV at the pour point into the lake. The spatial allocation of load within the watershed is an important accounting step to ensure that the DPV is achieved at the point of entry into the lake. How the watershed load is allocated may differ based on watershed characteristics and existing sources (*e.g.*, areas that are more susceptible to physical loss of nitrogen; location of towns, farms, and dischargers), so long as the DPV is met at the point of entry into the downstream lake. Where additional information is available, watershed modeling could be used to develop allocations that reflect hydrologic variability and other water quality considerations. For protection of the downstream lake, what is important is an accounting for nutrient loadings on a watershed scale that results in meeting the DPV at the point of entry into the downstream lake.

The final rule provides that additional DPVs may be established in upstream locations to represent sub-allocations of the total allowable loading or concentration. Such sub-allocations may be useful where there are differences in hydrological conditions and/or sources of TN and/or TP in different parts of the watershed. The rule specifies that DPVs apply to stream tributaries up to the point of reaching a waterbody that is not a stream as defined in the rule (*e.g.*, up to reaching another lake in a "nested" or chain of lakes situation). The rule also includes an option, however, to establish a DPV to account for a larger watershed area in a modeling context. Establishing DPVs that apply to a larger watershed may be useful to address a situation where the water that is furthest downstream in a watershed is also the water that is most sensitive to nitrogen/phosphorus pollution. That situation may require a more equitable distribution, across the larger watershed, of the load that protects the most sensitive waterbody.

Where multiple tributaries enter a lake, the total allowable loading to the lake may be distributed among the tributaries for purposes of DPV calculation in any manner that results in meeting the total allowable loading for the lake, remembering that those tributaries are also subject to the instream protection value established for the tributaries.

Where sufficient data and information are available, DPVs may be established through application of the BATHTUB model. BATHTUB applies empirical models to morphometrically complex lakes and reservoirs. The model performs steady-state water and nutrient balance calculations, uses spatially segmented hydraulic networks, and accounts for advective and diffusive transport of nutrients. When properly calibrated and applied, BATHTUB predicts nutrient-related water quality conditions such as TP, TN, and chlorophyll *a* concentrations, transparency, and hypolimnetic oxygen depletion rates. The model can apply to a variety of lake sizes, shapes and transport characteristics. A high degree of flexibility is available for specifying model segments as well as multiple influent streams. Because water quality conditions are calculated using relationships derived from data specific to each lake, BATHTUB accounts for differences between lakes, such as the rate of internal loading of phosphorus from bottom sediments. The above descriptive information is summarized from available technical references that also describe the model and its applications in greater detail.[138 139 140] EPA believes BATHTUB is appropriate for DPV calculations because BATHTUB can represent a number of site-specific variables that may influence nutrient responses and can estimate both TN and TP concentrations at the pour points to protect the receiving lake. BATHTUB has been previously used for lake water quality management purposes, such as the development of TMDLs in States, including Florida. This model was selected because it does not have extensive data requirements, yet it provides for the capability to be calibrated based on observed site-specific lake data and it provides for reliable estimates that will ensure the protection of downstream lakes.

EPA's final rule also specifically authorizes FDEP or EPA to use a model other than BATHTUB when either FDEP or EPA determines that it would be appropriate to use another scientifically defensible modeling approach that results in the protection of downstream lakes. While BATHTUB is a peer-reviewed and versatile model, there are other models that, when appropriately calibrated and applied, can offer additional capability to address complex situations with an even greater degree of site-specificity. Adopted and approved TMDLs may contain sufficient information to support derivation of a DPV when the TMDL is based on relevant data, defensible science, and accurate analysis.

As discussed in more detail in the Agency's August 2010 Supplemental Notice of Data Availability and Request for Comment on this issue, one example of an alternative model that FDEP or EPA might consider using for particularly complex site-specific conditions is the Water Quality Analysis Simulation Program (WASP) model. This model allows users to conduct detailed simulations of water quality responses to natural and manmade pollutant inputs. WASP is a dynamic compartment-modeling program for aquatic systems, including both the water column and the underlying benthos. WASP allows the user to simulate systems in 1, 2, or 3 dimensions, and a variety of pollutant types. The model can represent time varying processes of advection, dispersion, point and diffuse mass loading, and boundary exchange. WASP also can be linked with hydrodynamic and sediment transport models that can provide flows, depths, velocities, temperature, salinity and sediment fluxes. The above summary information as well as additional technical information may be found at *http://www.epa.gov/athens/wwqtsc/html/wasp.html*. Like BATHTUB, WASP has also been previously used for lake water quality management purposes, such as TMDLs, nationally and in the State of Florida. This model is different from BATHTUB because it does have extensive data requirements that allow for the capability to be finely calibrated based on observed site-specific lake data, but is similar to BATHTUB in that it also provides for reliable estimates that will ensure the protection of downstream lakes.

EPA is finalizing a provision in this section of the rule for situations where data are not readily available to derive TN and/or TP DPVs using BATHTUB or another scientifically defensible model. In that situation, the rule describes how DPVs are determined where the downstream lake is attaining the lake criteria and where the downstream lake is either not assessed or is impaired.

Where sufficient information is not available to derive TN and/or TP DPVs using BATHTUB or another scientifically defensible technical model and the lake attains the applicable criteria, the DPVs would be the associated ambient instream levels of TN and/or TP at the point of entry into the lake. As long as the TN and TP concentrations necessary to support a balanced natural population of aquatic flora and fauna in the downstream lake are maintained in the inflow from streams, this approach will provide adequate protection of downstream lakes and would be used as the applicable DPVs in the absence of readily available data to support derivation of TN and TP DPVs using BATHTUB or another scientifically defensible technical model such as WASP.

EPA's final rule provides that when the DPV is based on the ambient condition associated with attainment of criteria in the downstream lake, degradation in water quality from those established levels would be considered impairment, unless the State or EPA revises the DPV using a modeling approach or TMDL to show that higher levels of nutrient contribution from the tributaries would still result in attainment of applicable lake criteria. This provision is not intended to limit growth and/or development in the watershed, nor intended to maintain current conditions regardless of further analysis. Rather this provision is intended to ensure that WQS are not only restored when found to be impaired, but are in fact maintained when found to be attained, consistent with the goals of the Clean Water Act. Higher levels of TN and/or TP may be allowed in such watersheds where it is demonstrated that such higher levels will fully protect the lake's WQS.

Where sufficient information is not available to derive TN and/or TP DPVs using BATHTUB or another scientifically defensible technical model and the lake does not attain the applicable TN, TP, and/or chlorophyll *a* criteria or is un-assessed, lake criteria values for TN and/or TP are to be used as the DPVs. EPA believes that this approach is protective because the TN and TP concentrations entering the lake are unlikely to need to be lower than the criterion concentration necessary to be protective of the lake itself.

(g) Stressor-Response Approach

In deriving the final criteria for lakes, EPA has relied on a stressor-response approach which has been well documented and developed in a number of different contexts.[141 142 143] Stressor-response approaches estimate the relationship between nitrogen/phosphorus concentrations and a response measure that is either directly or indirectly related to the designated use (in this case, chlorophyll *a* as a measure of attaining a balanced natural population of aquatic flora and fauna). Then, concentrations that support the

[138] Walker, W.W., 1981. *Empirical Methods for Predicting Eutrophication in Impoundments; Report 1, Phase I: Data Base Development.* Technical Report E–81–9. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

[139] Walker, W.W., 1982. *Empirical Methods for Predicting Eutrophication in Impoundments; Report 2, Phase II: Model Testing.* Technical Report E–81–9. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

[140] Walker, W.W., 1999. *Simplified Procedures for Eutrophication Assessment and Prediction: User Manual;* Instruction Report W–96–2. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.

[141] USEPA. 2000a. *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs.* EPA–822–B–00–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[142] USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams.* EPA–822–B–00–002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[143] USEPA. 2008. *Nutrient Criteria Technical Guidance Manual: Wetlands.* EPA–822–B–08–001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

designated use can be derived from the estimated relationship. In the case of Florida, the use of this approach is supported by a substantial Florida-specific database of high quality information, sound scientific analysis and technical evaluation.

The effects of nitrogen/phosphorus pollution are manifested in lakes in a variety of ways and are well-documented.[144 145 146 147] A common effect of nitrogen/phosphorus pollution in lakes is the over-stimulation of algal growth resulting in algal blooms, which can cause changes in algal and animal assemblages due to adverse changes in important water quality parameters necessary to support aquatic life. Algal blooms can decrease water clarity and aesthetics, which in turn can affect the suitability of a lake for primary (*e.g.*, swimming) and secondary (*e.g.*, boating) contact recreation. Algal blooms can adversely affect drinking water supplies by releasing toxins, interfering with disinfection processes, or requiring additional treatment. Algal blooms can adversely affect biological process by decreasing light availability to submerged aquatic vegetation (which serves as habitat for aquatic life), degrading food quality and quantity for other aquatic life, and increasing the rate of oxygen consumption.

D. Numeric Criterion for the State of Florida's Springs

(1) Final Rule

EPA defines "spring" as a site at which ground water flows through a natural opening in the ground onto the land surface or into a body of surface water. This definition is drawn from the U.S. Geological Survey, Circular 1137.[148] This definition is not intended to include streams that flow in a defined channel that have some groundwater baseflow component. EPA recognized that groundwater-surface water interactions in Florida are complex and that FDEP will need to make site-specific determinations about whether water is subject to the stream criteria or the springs criterion. EPA is promulgating the numeric criterion for nitrate+nitrite for Florida's springs classified as Class I or III waters under Florida law (Section 62–302.400, F.A.C.):

The applicable nitrate (NO_3^-) + Nitrite (NO_2^-) is 0.35 mg/L as an annual geometric mean, not to be exceeded more than once in a three-year period

(2) Background and Analysis

(a) Derivation of Nitrate + Nitrite Criterion

In its January proposal, EPA proposed a nitrate+nitrite criterion of 0.35 mg/L for springs and clear streams that would support balanced natural populations of aquatic flora and fauna in springs. EPA proposed criteria for nitrate+nitrite because one of most significant factors causing adverse changes in spring ecosystems is the pollution of groundwater, principally with nitrate+nitrite, resulting from human land use changes, cultural practices, and significant population growth.[149 150]

EPA based its proposed criterion on multiple lines of stressor-response evidence, which included controlled, laboratory-scale experimental data and analysis of field-based data. EPA's first line of evidence is stressor-response data from controlled laboratory experiments, which studied the growth response of algae in springs to different concentrations of nitrate+nitrite. EPA found in its review of comprehensive surveys [151 152] and a study [153] of 29 Florida springs at over 150 sampling sites, conducted on behalf of FDEP over three years, that two nuisance algal taxa, the cyanobacterium *Lyngbya wollei* and the macroalgae *Vaucheria sp.*, were the most commonly occurring taxa. The authors of the study conducted controlled laboratory experiments, which tested the growth response of *Lyngbya wollei* and *Vaucheria sp.* to different doses of nitrate+nitrite. They found that *Lyngbya wollei* and *Vaucheria sp.* growth rates increased in response to increased doses of nitrate+nitrite and that most of their highest growth rates were reached at and above 0.23 mg/L nitrate+nitrite. EPA interpreted the results from these studies as strong empirical evidence of a stressor-response relationship between nuisance algae and nitrate+nitrite and further indicated specific concentrations above which undesirable growth of nuisance algal may be likely to occur.

In addition to the laboratory-based experimental evidence, EPA reviewed information compiled by FDEP in its assessment of limits to restore springs and protect them from excess algal growth.[154 155] The second line of evidence was based on data collected from *in-situ* algal monitoring and long-term field surveys in rivers FDEP considered to exhibit similar aquatic conditions to springs (*e.g.*, algal communities, water clarity, and proportion of flow coming from a spring). EPA found additional stressor-response evidence in an analysis [156] based on over 200 algal samples collected from 13 different algal monitoring stations along the Suwannee, Santa Fe, and Withlacoochee Rivers from 1990 to 1998. The analysis examined algal growth response over a range of nitrate+nitrite concentration. Results indicated a sharp increase in

[144] Lee, G.F., W. Rast, R.A. Jones. 1978. Eutrophication of water bodies: Insights for an age-old problem. *Environmental Science and Technology* 12: 900–908.

[145] Carlson R.E. 1977. A trophic state index for lakes. *Limnology and Oceanography* 22:361–369.

[146] Smith, V.H., G.D. Tilman, and J.C. Nekola. 1999. Eutrophication: impacts of excess nutrient inputs on freshwater, marine, and terrestrial ecosystems. *Environmental Pollution* 100: 179–196.

[147] Smith, V.H., S.B. Joye, and R.W. Howarth. 2006. Eutrophication of freshwater and marine ecosystems. *Limnology and Oceanography* 51:351–355.

[148] Schiffer, Donna M. 1998. *Hydrology of Central Florida Lakes—A Primer.* U.S. Geological Survey in cooperation with SJWMD and SFWMD: Circular 1137.

[149] Katz, B.G., H.D. Hornsby, J.F. Bohlke and M.F. Mokray. 1999. *Sources and chronology of nitrate contamination in spring water, Suwannee River Basin, Florida.* Water-Resources Investigations Report 99–4252. U.S. Geological Survey, Tallahassee, FL. Available electronically at: *http://fl.water.usgs.gov/PDF_files/wri99_4252_katz.pdf.*

[150] Brown M.T., K. Chinners Reiss, M.J. Cohen, J.M. Evans, P.W. Inglett, K. Sharma Inglett, K. Ramesh Reddy, T.K. Fraze, C.A. Jacoby, E.J. Phlips, R.L. Knight, S.K. Notestein, R.G. Hamann, and K.A. McKee. 2008. *Summary and Synthesis of the Available Literature on the Effects of Nutrients on Spring Organisms and Systems.* University of Florida, Gainesville, Florida. Available electronically at: *http://www.dep.state.fl.us/springs/reports/files/UF_SpringsNutrients_Report.pdf.* Accessed October 2010.

[151] Pinowska, A., R.J. Stevenson, J.O. Sickman, A. Albertin, and M. Anderson. 2007a. *Integrated interpretation of survey for determining nutrient thresholds for macroalgae in Florida Springs: Macroalgal relationships to water, sediment and macroalgae nutrients, diatom indicators and land use.* Florida Department of Environmental Protection, Tallahassee, FL.

[152] Stevenson, R.J., A. Pinowska, and Y.K. Wang. 2004. *Ecological Condition of Algae and Nutrients in Florida Springs.* Florida Department of Environmental Protection, Tallahassee, FL.

[153] Pinowska, A., R.J. Stevenson, J.O. Sickman, A. Albertin, and M. Anderson. 2007b. *Integrated interpretation of survey and experimental approaches for determining nutrient thresholds for macroalgae in Florida Springs: Laboratory experiments and disturbance study.* Florida Department of Environmental Protection, Tallahassee, FL.

[154] Gao, X. 2008. *Nutrient TMDLs for the Wekiva River (WBIDs 2956, 2956A, and 2956C) and Rock Springs Run (WBID 2967).* Florida Department of Environmental Protection, Division of Water Resource Management, Tallahassee, FL.

[155] Hallas, J.F. and W. Magley. 2008. *Nutrient and Dissolved Oxygen TMDL for the Suwannee River, Santa Fe River, Manatee Springs (3422R), Fanning Springs (3422S), Branford Spring (3422J), Ruth Spring (3422L), Troy Spring (3422T), Royal Spring (3422U), and Falmouth Spring (3422Z).* Florida Department of Environmental Protection, Bureau of Watershed Management, Tallahassee, FL.

[156] Niu, X.-F. 2007. Appendix B. Change Point Analysis of the Suwannee River Algal Data. *In* Gao, X. 2008. *Nutrient TMDLs for the Wekiva River (WBIDs 2956, 2956A, and 2956C) and Rock Springs Run (WBID 2967).* Florida Department of Environmental Protection, Division of Water Resource Management, Tallahassee, FL.

algal abundance and biomass above 0.4 mg/L nitrate + nitrite.

EPA concluded the two different lines of stressor-response evidence point to a nitrate+nitrite concentration of 0.35 mg/L that would prevent excess algal growth and be supportive of balanced natural populations of aquatic flora and fauna in Florida springs. This concentration is higher than that observed in laboratory-scale experiments that may not be closely representative of reference spring sites in Florida, but lower than the concentration that was associated with changes in the balance of natural populations of aquatic flora and fauna observed in an analysis of field data. EPA believes a nitrate+nitrite criterion set at 0.35 mg/L represents an appropriate and reasonable balance of the scientific evidence.

EPA received a number of comments regarding EPA's proposed criterion for springs, including concerns that the biological responses observed in the field were not representative of all springs in Florida. EPA disagrees with these commenters who suggested that the observed effects in the field are not sufficient evidence to support numeric criteria derivation in springs. The algal taxa, *Lyngbya sp.* and *Vaucheria sp.*, are representative taxa found in Florida springs. In fact, *Lyngbya* and *Vaucheria* are the most commonly observed macroalgae in Florida springs.[157] Thus, the Agency considers the biological responses of these representative taxa observed in the field and in laboratory experiments to be ecologically meaningful and indicative of an adverse biological response to elevated nitrate+nitrite concentrations above 0.35 mg/L.

EPA also received comment that the proposed nitrate+nitrite criterion was inappropriately applied to all clear streams within the State. After considering these comments, EPA concluded that clear streams are more appropriately addressed as part of the regionalized reference approach that is supported by a broader range of stream monitoring data as discussed above. Therefore, EPA has decided not to finalize the springs nitrate+nitrite criterion in clear streams because EPA considers the numeric criteria it is finalizing in this rule for streams in the five NWRs, which includes clear streams, to be adequately protective and scientifically defensible. These systems will also be protected from excess nitrogen from groundwater by the nitrate+nitrite criteria applicable in the springs that flow into them; thus, additional nitrate+nitrite criteria are not needed.

In this final rule, EPA is finalizing nitrate+nitrite criterion for springs with a magnitude of 0.35 mg/L. For more information regarding the springs criterion, please refer to EPA's Final Rule TSD for Florida's Inland Waters, Chapter 3: Methodology for Deriving U.S. EPA's Criteria for Springs located in the record for this final rule.

(b) Duration and Frequency

EPA proposed a nitrate+nitrite criterion duration as an annual geometric mean with a criterion frequency of not to be exceeded more than once in three years. EPA also took comment on alternative durations, such as a monthly geometric mean, and alternative frequencies, such as a not to be exceeded more than 10% of the time. EPA considered that the timescales of the algal responses in the laboratory experiments (*i.e.*, 21 to 28 days) might support a shorter duration over which biological response to nitrate+nitrite could occur. However, EPA found in its review of springs data and information that nitrate concentrations can be variable from month to month, and this intra-annual variability was not necessarily associated with impairment of the designated use. Therefore, to account for intra-annual variability, EPA chose to express the nitrate+nitrite criterion for springs on an annual basis. Comments included a suggestion to express the frequency component of the criterion as "not to be exceeded during a three year period as a three year average." However, EPA is concerned that cumulative effects of exposure may manifest themselves in shorter periods of time than three years. This is because springs tend to be clear which provides the opportunity for fast growing nuisance algal species to quickly utilize the excess nitrogen. When nuisance algae species grow prolifically, they outcompete and replace native submerged aquatic vegetation. Thus, more frequent exceedances of the criterion-magnitude will not support a balanced natural population of aquatic flora and fauna in springs because submerged aquatic vegetation can be lost quickly from the effects of nitrate+nitrite pollution, but can take many years, if not decades, to recover.[158] For these reasons, EPA is finalizing the proposed duration and frequency of an annual geometric mean not to be exceeded more than once in three years.

E. Applicability of Criteria When Final

(1) Final Rule

This final rule is effective 15 months after publication in the **Federal Register**, except for the Federal site-specific alternative criteria (SSAC) provision of section 131.43(e), which is effective 60 days after publication in the **Federal Register**. This rule will apply in addition to any other existing CWA-effective criteria for Class I or Class III waters already adopted and submitted to EPA by the State (and for those adopted and submitted to EPA after May 30, 2000, approved by EPA). FDEP establishes its designated uses through a system of classes and Florida waters are designated into one of several different classes. Class III waters provide for healthy aquatic life and safe recreational use. Class I waters include all the protection of designated uses provided for Class III waters, and also include protection for designated uses related to drinking water supply. *See* Section 62-302.400, F.A.C. Class I and III waters, together with Class II waters that are designated for shellfish propagation or harvesting, comprise the set of Florida waters that are assigned designated uses that include the goals articulated in Section 101(a)(2) of the CWA (*i.e.* protection and propagation of fish, shellfish, and wildlife and recreation in and on the water).[159] Class II waters will be covered under EPA's forthcoming rulemaking efforts for estuarine and coastal waters. EPA is promulgating numeric criteria for lakes and flowing waters, consistent with the terms of the Agency's Consent Decree, that Florida has designated as Class I or Class III.

In terms of final rule language, EPA has removed regulatory provisions at 40 CFR 131.43(c)(2)(iii) and 131.43(c)(4)-(6) because these criteria (criteria for protection of downstream estuarine waters, flowing waters in the South Florida Region, and estuaries and coastal waters) will be included with the Agency's 2011 proposed rulemaking for estuarine and coastal waters. For water bodies designated as Class I and Class III predominately fresh waters, EPA's final numeric criteria will be applicable CWA water quality criteria for purposes of implementing CWA programs, including permitting under the NPDES program, as well as

[157] Stevenson, R.J., A. Pinowska, and Y.K. Wang. 2004. *Ecological Condition of Algae and Nutrients in Florida Springs.* Florida Department of Environmental Protection, Tallahassee, FL.

[158] Duarte, C.M. 1995. Submerged aquatic vegetation in relation to different nutrient regimes. *Ophelia: International Journal of Marine Biology* 41: 87–112.

[159] Because FL classifications are cumulative, Class I waters include protections for aquatic life and recreation, in addition to protecting drinking water supply use.

monitoring, assessments, and listing of impaired waters based on applicable CWA WQS and establishment of TMDLs.

In this final rule, the Agency has also deleted proposed regulatory provisions at 40 CFR 131.43(d)(2)(i)–(iii) on mixing zones, design flow, and listing impaired waters. EPA notes that the final criteria in this rule are subject to Florida's general rules of applicability in the same way and to the same extent as are other State-adopted and/or Federally-promulgated criteria for Florida waters. (*See* 40 CFR 131.43(d)(2)). States have discretion to adopt policies generally affecting the application and implementation of WQS. (*See* 40 CFR 131.13). There are many applications of criteria in Florida's water quality programs. Therefore, EPA believes that it is not necessary for purposes of this final rule to enumerate each of them, nor is it necessary to restate any otherwise applicable requirements. This broad reference to general rules of applicability provides sufficient coverage and has been used without further elaboration in EPA's most recent criteria promulgation applicable to State waters.[160] The Agency is also concerned that addressing some applications in this final regulations and not others may create unnecessary and unintended questions, confusion, and uncertainty about the overall application of Florida's general rules.

(2) Summary of Major Comments

Regarding application of criteria, several commenters asked EPA to provide more detail on how waters would be monitored, whether EPA would use the rotating basin approach that FDEP uses, how EPA would enforce the criteria, and how specific entities would be affected. In response, EPA points out that WQS generally, and EPA's rule specifically, do not specify how to achieve those WQS. As discussed above, the State of Florida will determine how best to meet these Federal numeric criteria in a way that most effectively meets the needs of its citizens and environment. FDEP is the primary agency responsible for implementing CWA programs in the State of Florida. As such, EPA defers to FDEP in administering applicable CWA programs consistent with the CWA and EPA's implementing regulations. EPA has worked closely with the State to address nitrogen/phosphorus pollution problems in Florida. EPA will continue to collaborate with FDEP as the State implements EPA's Federally-promulgated numeric criteria.

Several commenters asserted that Florida would not be able to implement EPA's Federally-promulgated numeric criteria without first adopting the criteria into State law. EPA does not believe that, in order to implement EPA's Federally-promulgated numeric criteria, FDEP is required to adopt EPA's rule into State law. EPA's numeric criteria for Florida's lakes and flowing waters will be effective for CWA purposes 15 months after publication of the final criteria in the **Federal Register** and will apply in addition to any other existing CWA-effective criteria for Class I or Class III waters already adopted by the State and submitted to EPA (and for those adopted after May 30, 2000, adopted and submitted by FDEP and approved by EPA). FDEP retains the authority to move forward with its own rulemaking process at any time to establish State numeric criteria and to submit such criteria to EPA for review and approval under section 303(c) of the CWA. If FDEP does not adopt State numeric criteria, the Department retains its current authority to implement Federally promulgated criteria through the State's narrative or "free from" criteria. FDEP's General Counsel has confirmed, in a 2005 letter to EPA that the State's water quality criteria regulations for surface waters, set out at Section 62–302.500, F.A.C., provide authority for the Department to address and implement EPA promulgated criteria in CWA programs.[161]

Several commenters suggested that EPA incorporate water quality targets from adopted and approved TMDLs as site-specific criteria (SSAC) for specific waters in lieu of the more broadly applicable criteria promulgated by EPA. These commenters asserted that the TMDL values better reflect site-specific needs and were already serving as the basis for many pollutant reduction actions, including Basin Management Action Plans (BMAPs). Commenters expressed concern that actions to implement the TMDLs would be curtailed or delayed because of the uncertainty whether additional reductions might be required, and that both the Federal SSAC process (described in Section V.C of this notice) and use attainability analysis (UAA)/variance process would be too burdensome and time-consuming to be effective alternatives. Similarly, some commenters requested that specific restoration projects be exempted from EPA's criteria or that EPA employ a process for delaying application of the criteria where a water is under study.

EPA's position is that EPA-established or approved TMDLs may provide sufficient information to support a site-specific alternative criterion, but that such a demonstration should be made after considering and taking into account any new relevant information available, including but not limited to the substantial analysis and data considered and made a part of the record for this final rule. For this reason, EPA considers the Federal SSAC procedure to be the appropriate mechanism for determining whether any specific TMDL target should be adopted as a SSAC. For restoration projects or waters under study, a State-issued variance may also be an appropriate vehicle for regulatory flexibility.

Several commenters requested clarification regarding the effect of EPA's Federally-promulgated numeric criteria on existing TMDLs. A TMDL is established at levels necessary to attain and maintain "applicable narrative and numerical water quality standards." (*See* 40 CFR 130.7(c)(1)). A TMDL addressing a narrative WQS requires translating the narrative WQC into a numeric water quality target (*e.g.*, a concentration). TMDLs are not implemented directly but through other programs such as NPDES permitting and non-point source programs. For example, a NPDES permitting authority must ensure at the time of permit issuance that WQBELs are consistent with the assumptions and requirements of any available wasteload allocation (WLA) for that discharge contained in a TMDL, as well as derive from and comply with all applicable WQS. (*See* 40 CFR 122.44(d)(1)(vii)(A) and (B)).

Some existing TMDLs translate the same portion of Florida's narrative criterion, Subsection 62–302.530(47)(b), F.A.C., as EPA has translated to derive its numeric criteria, *e.g.* no imbalance in natural populations of aquatic flora and fauna. The permitting authority must ensure that any permit issuance or re-issuance include WQBELs that are as stringent as necessary to meet the promulgated numeric criteria, pursuant to CWA section 301(b)(1)(C) and 40 CFR 122.44(d)(1). These existing TMDLs will likely include information that is relevant and helpful in evaluating necessary discharge limitations, such as consideration of other sources of the pollutant and hydrodynamics of the waterbody. EPA recommends that existing TMDLs that are based on translation of Subsection 62–302.520(47)(b), F.A.C. ("no imbalance in natural population of aquatic flora and

[160] *See* 40 CFR 131.41(d)(2).

[161] FDEP. 2005, January 5. "Petition to Withdraw Florida's NPDES Authority of March 19, 2004 Response to EPA Letter of December 8, 2004." Letter from George Munson, General Counsel.

fauna"), undergo a two-part evaluation. The first step is to assess whether the waterbody is still, in fact, water quality-limited (impaired) using the new numeric WQC. If the waterbody is still water quality-limited, then a second evaluation should be conducted to determine whether the existing TMDL based on the narrative is sufficient to meet the new numeric criterion, and in turn, whether or not it may be appropriate to revise the TMDL. The State may also wish to pursue submitting the TMDL water quality target derived by translating the narrative for determination as a Federal SSAC.

Other existing TMDLs translate another part of Florida's narrative nutrient criterion, Subsection 62–302.530(47)(a) F.A.C. This provision provides that nitrogen/phosphorus pollution shall be limited so as to prevent violation of another Florida WQS. Where a TMDL water quality target was developed as a translation of this part of Florida's narrative nutrient criterion (for example, that amount of nitrogen/phosphorus that would not cause excursions of Florida's dissolved oxygen WQS), the appropriate WQBEL is the more stringent result of applying the TMDL WLA or the promulgated numeric criteria.

It is important to keep in mind that no TMDL will be rescinded or invalidated as a result of this final rule, nor does this final rule have the effect of withdrawing any prior EPA approval of a TMDL in Florida. Neither the CWA nor EPA regulations require TMDLs to be completed or revised within any specific time period after a change in water quality standards occurs. TMDLs are typically reviewed as part of States' ongoing water quality assessment programs. Florida may review TMDLs at its discretion based on the State's priorities, resources, and most recent assessments. NPDES permits are subject to five-year permit cycles, and in certain circumstances are administratively continued beyond five years. In practice, States often prioritize their administrative workload in permits. This prioritization could be coordinated with TMDL review.

EPA-established or approved TMDLs may provide sufficient information to support a site-specific alternative criterion (SSAC). The SSAC path is one that local governments or businesses may want to pursue where they desire assurance that the TMDL will become the applicable numeric criteria in advance of the State's review of the TMDL or where substantial investments in pollution controls are predicated on water quality based effluent limits, and local governments or businesses need long-term planning certainty before making these investments. The demonstrations supporting SSAC requests for TMDLs should reflect any new relevant information that has become available since the TMDL was developed, including but not limited to the substantial analysis and data considered and made a part of the record for this final rule. For this reason, EPA considers the Federal SSAC procedure to be the appropriate mechanism for determining whether any specific TMDL target should replace the otherwise applicable numeric criteria in this final rule. EPA will work cooperatively with entities requesting SSAC to expedite consideration of TMDL targets and associated TN and/or TP levels as Federal SSAC for purposes of this final rule. As explained in the preamble to the final rule, EPA has delayed the effective date of its numeric criteria for 15 months. EPA encourages any entity wishing to have EPA adopt a particular TMDL target as a SSAC to submit such TMDL to EPA for consideration as a SSAC as soon as possible during these 15 months. When submitting such requests to EPA, such entity must copy FDEP so that FDEP may provide any comments it has to EPA. EPA would then review the SSAC application and prepare the SSAC for public notice once this final rule takes effect. Following this process, the TMDL target, if scientifically and technically justified, could replace the otherwise applicable numeric criteria within a very short period of time after this final rule takes effect. Following any such establishment of site-specific numeric criteria, the State of Florida may review and/or revise the TMDL at its discretion based on the changed criteria and the State's priorities, resources, and most recent assessments. EPA is still required to approve any changes to a previously approved TMDL.

EPA is extending the effective date of this rule, with the exception of the site-specific alternative criteria provision for reasons discussed below, for 15 months to allow time for the Agency to work with stakeholders and FDEP on important implementation issues and to help the public and all affected parties better understand the final criteria and the bases for those criteria. EPA solicited comment on the rule's proposed effective date in the preamble to the proposed rule (75 FR 4216 (January 26, 2010)) and received many comments requesting that EPA delay the effective date of the final criteria. A range of commenters suggested delayed effective dates from several months to several years, including linking the effective date of this rule with the forthcoming estuaries and coastal waters rule to allow closer coordination of the related parts of the two rulemakings. EPA does not agree with some commenters that such an extensive delay is necessary. However, EPA does believe, as discussed below, that these criteria present a unique opportunity for substantial nitrogen and phosphorus loadings reductions in the State that would be greatly facilitated and expedited by strongly coordinated and well-informed stakeholder engagement, planning, and support before a rule of this significance and broad scope begins to take effect and be implemented through the State's regulatory programs.

EPA believes that it is critical, before the rule becomes effective, to engage and support, in full partnership with FDEP, the general public, stakeholders, local governments, and sectors of the regulated community across the State in a process of public outreach, education, discussion, and constructive planning. EPA solicited comment on the proposed rule in January 2010 and has carefully considered those comments, which numbered more than 22,000, in developing the final rule. However, the nature of rule development has kept EPA from publicly discussing the contents of the final rule until the rule development process, itself, was complete. An investment in outreach, information, coordination, technical assistance and planning following this action may result in far more effective, expeditious, and ultimately effective implementation of appropriate and badly needed nutrient pollution reduction measures leading to public health and environmental improvements, the goals of this rule. EPA recognizes that in order for FDEP to effectively implement the final criteria for nutrients, it needs to plan how to best address the criteria in State programs such as the permits, waterbody assessment and listing, and TMDL programs. The State may need to develop implementation plans and guidance for affected State regulatory programs, train employees, and educate the public and regulated communities. EPA will work with FDEP as a partner over the next 15 months as FDEP takes the steps necessary to implement the new standards in an orderly manner. Moreover, EPA believes it would be useful and beneficial to have discussions with State and local officials, organizations of interested parties, and with the general public to explain the final rule, the bases for that rule, and respond to implementation questions and concerns.

Several stakeholder groups have provided comments about particular implementation issues that will require time to address before effective implementation of the final rule can be achieved. Florida has a unique local government administration structure that includes county, municipal, and special districts, all which have overlapping authorities with respect to managing water resources. The special districts provide water resource management oversight of flood control and water supply services. These multiple layers of government authorities will require time to coordinate responsibilities. An additional concern for local governments is their budgeting process. Most local governments operate on a fiscal year cycle of October to September; thus they have recently begun a new fiscal year. These local governments engage in multi-year budget planning and have already begun laying the budget foundations for up to five successive years. EPA recognizes that Florida's agricultural community has implemented a variety of best management practices (BMPs) that are effective at reducing nitrogen and phosphorus pollution from farms. However, Florida's agriculture industry is composed of a large number of small farms (about 17,000) that have average annual sales of less than $10,000 each, and most do not receive any form of government assistance.[162] EPA anticipates that the Natural Resource Conservation Service and the University of Florida/Institute of Food and Agricultural Sciences Extension will need time to educate those not currently enrolled in nutrient management and BMP programs to control nutrient runoff.

A delayed effective date of 15 months for the criteria will also provide time for interested parties to pursue site-specific alternative criteria (SSAC) for a given waterbody. EPA's final rule and associated preamble describe the process by which any entity may seek a SSAC. A decision to seek a SSAC could not be made, however, until interested parties know what the applicable criteria would be. The Federal SSAC portion of the rule, § 131.43(e), goes into effect 60 days after publication of this rule to allow this important work to proceed in advance of the effective date for the remaining provisions of the rule. During the 15 months before the criteria become effective, parties may evaluate the final criteria, decide whether they want to seek a SSAC, and, if so, submit their SSAC application materials to EPA, copying FDEP. EPA could then review the application, and if complete, public notice the application and technical support document pursuant to the SSAC provision in the final rule. If, after reviewing public comment, EPA believes that the SSAC application meets the requirements of this rule, EPA could determine that such SSAC apply to the specific waterbody in lieu of the criteria in the final rule, even before the criteria in the final rule become effective due to the earlier effective date of the SSAC provision.

EPA believes that the 15-month period of time between publication in the **Federal Register** and the effective date of the criteria will ultimately result in attainment of the criteria in an overall shorter period of time. As EPA frequently points out in its guidance and training materials, criteria are not "self-implementing", that is, it takes knowledgeable and experienced professionals to effectively and properly employ the criteria in monitoring and assessment programs, permit limit derivation and expression, nonpoint source (NPS) control strategies, and other program applications. Without time to develop procedures, there is the risk of ineffective implementation that will not meet the underlying objective of this action—to restore and protect Florida's waters from harm caused by nitrogen and phosphorus pollution. Well designed and mapped out NPS control strategies, in particular, will be critical to gain stakeholder trust and participation.

EPA wishes to actively engage in partnership with FDEP to support FDEPs implementation of these new standards, for example by considering applications for site-specific alternative criteria. After careful consideration of time requirements for critical steps, along with recognition of important planning and accounting mechanisms such as fiscal years, and local and county meeting and planning cycles, EPA has determined that a 15-month time period is both reasonable and will allow time for important implementation activities to take place. This 15-month period will allow for a four-month education and outreach rollout to cover the major interest sectors and geographic locations throughout the State of Florida; a three-month period of training and guidance concurrent with data synthesis and analysis to support potential SSAC development; a two-month public comment and response period to allow development of effective guidance, training and possible workshops to run concurrent with SSAC submittals; a three-month period for finalizing guidance materials along with development of rollout strategies (*e.g.*, for NPS control) concurrent with notice and comment of SSAC; and finally a 3-month period for statewide education and training on guidance and contingency planning. In short, the 15 months before the criteria become effective will ensure application of programs to achieve criteria in a manner that makes the most efficient use of limited resources and gains the broadest possible support for timely and effective action upon reaching the effective date of the criteria.

IV. Under what conditions will Federal standards be withdrawn?

Under the CWA, Congress gave States primary responsibility for developing and adopting WQS for their navigable waters. (*See* CWA section 303(a)-(c)). Although EPA is promulgating numeric criteria for lakes and springs throughout Florida and flowing waters outside the South Florida Region, Florida continues to have the option to adopt and submit to EPA numeric criteria for the State's Class I and Class III waters consistent with CWA section 303(c) and implementing regulations at 40 CFR part 131.

Pursuant to 40 CFR 131.21(c), EPA's promulgated WQS are applicable WQS for purposes of the CWA until EPA withdraws those Federally-promulgated WQS. Withdrawing the Federal standards for the State of Florida would require rulemaking by EPA pursuant to the requirements of the Administrative Procedure Act (5 U.S.C.551 *et seq.*). EPA would undertake such a rulemaking to withdraw the Federal criteria if and when Florida adopts and EPA approves numeric criteria that fully meet the requirements of section 303(c) of the CWA and EPA's implementing regulations at 40 CFR part 131.

[162] NASS. 2009a. 2007 Census of agriculture Florida State and county data, Volume 1, Geographic Area Series, Part 9, AC–07–A–9, Updated December 2009, National Agricultural Statistics Service, U.S. Department of Agriculture, Washington, DC. *http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Florida/flv1.pdf* (retrieved July 15, 2010).

NASS. 2009. 2009 State agriculture overview—Florida. U.S. Department of Agriculture, National Agricultural Statistics Service, Washington, DC, *http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_FL.pdf* (retrieved June 17, 2010).

V. Alternative Regulatory Approaches and Implementation Mechanisms

A. Designating Uses

(1) Background and Analysis

Under CWA section 303(c), States shall adopt designated uses after taking "into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish, and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation." Designated uses "shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of [the CWA]." (*See* CWA section 303(c)(2)(A)). EPA's regulation at 40 CFR 131.3(f) defines "designated uses" as "those uses specified in water quality standards for each waterbody or segment whether or not they are being attained." A "use" is a particular function of, or activity in, waters of the United States that requires a specific level of water quality to support it. In other words, designated uses are a State's concise statements of its management objectives and expectations for each of the individual surface waters under its jurisdiction.

In the context of designating uses, States often work with stakeholders to identify a collective goal for their waters that the State intends to strive for as it manages water quality. States may evaluate the attainability of these goals and expectations to ensure they have designated appropriate uses. (*See* 40 CFR 131.10(g)). Consistent with CWA sections 101(a)(2) and 303(c)(2)(A), EPA's implementing regulations specify that States adopt designated uses that provide water quality for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water, wherever attainable. (*See* 40 CFR 131.10). Where States do not designate those uses, or remove those uses, they must demonstrate that such uses are not attainable consistent with the use attainability analysis (UAA) provisions of 40 CFR 131.10, specifically 131.10(g). States may determine, based on a UAA, that attaining a designated use is not feasible and propose to EPA to change the use to something that is attainable. This action to change a designated use must be completed in accordance with EPA regulations. (*See* 40 CFR 131.10(g) and (h)). In implementing these regulations, EPA allows grouping waters together in a watershed in a single UAA, provided that there is site-specific information to show how each individual water fits into the group in the context of any single UAA and how each individual water meets the applicable requirements of 40 CFR 131.10(g).

EPA's final numeric criteria for lakes and flowing waters apply to those waters designated by FDEP as Class I (Potable Water Supplies) or Class III (Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife). If Florida removes either the Class I and/or Class III designated use for any particular waterbody ultimately affected by this rule, and EPA finds that removal to be consistent with CWA section 303(c) and regulations at 40 CFR part 131, then the Federally-promulgated numeric criteria would not apply to that waterbody because it would no longer be designated Class I or III. Instead, any criteria associated with the newly designated use would apply to that waterbody.

(2) Summary of Major Comments

Many commenters took the opportunity to emphasize the need to adhere to the regulations governing the process of modifying or removing a designated use. Some commenters suggested that the process to change a designated use is extremely difficult. EPA's experience is that UAAs may range from simple to complex, depending on a variety of factors, such as the type of waterbody involved, the size of the segment, the use being changed, the relative degree of change proposed for the designated use, the presence of unique ecological habitats, and the level of public interest/involvement in the designated use decision. EPA agrees that, while a UAA is being conducted, the current designated use and corresponding criteria remain in place. In the case of Florida's Class I and Class III flowing waters and lakes, EPA's promulgated numeric criteria will remain the applicable WQS for CWA purposes, including assessments, listings, TMDL development and the issuance of NPDES permits, unless and until the State adopts revised designated uses (with different associated criteria) that are submitted to and approved by EPA under CWA section 303(c).

B. Variances

(1) Final Rule

For purposes of this rule, EPA is promulgating criteria that apply to use designations that Florida has already established. EPA believes that the State has sufficient authority to use its currently EPA-approved variance procedures with respect to a temporary modification of its Class I or Class III uses as it pertains to any Federally-promulgated criteria. For this reason, EPA did not propose and is not promulgating an alternative Federal variance procedure.

(2) Background and Analysis

A variance is a temporary modification to the designated use and associated water quality criteria that would otherwise apply to the receiving water.[163] Variances constitute new or revised WQS subject to the substantive requirements applicable to removing a designated use.[164] Thus, a variance is based on the same factors, set out at 40 CFR 131.10(g), that are required to revise a designated use through a UAA. Typically, variances are time-limited (*e.g.*, three to five years), but renewable. Temporarily modifying the designated use for a particular waterbody through a variance process allows a State to limit the applicability of a specific criterion to that water and to identify an alternative designated use and associated criteria to be met during the term of the variance. A variance should be used instead of removal of a use where the State believes the standard can be attained at some point in the future. By maintaining the designated use for all other criteria and dischargers, and by specifying a point in the future when the designated use will be fully applicable in all respects, the State ensures that further progress will be made in improving water quality and attaining the standard. A variance may be written to address a specified geographic area, a specified pollutant or pollutants, and/or a specified pollutant source. All other applicable WQS not specifically modified by the variance would remain applicable (*e.g.*, any other criteria adopted to protect the designated use). State variance procedures, as part of State WQS, must be consistent with the substantive requirements of 40 CFR part 131. Each variance, as a revised WQS, must be submitted to EPA for review pursuant to CWA section 303(c). A variance allows, among other things, NPDES permits to be written such that reasonable progress is made[165] toward attaining the underlying standards for affected waters without violating section 402(a)(1) of the Act, which requires that NPDES permits

[163] Water Quality Standards Regulation, 40 CFR part 131: Advance notice of proposed rulemaking. USEPA FR 63:129 (July 7, 1998). p. 36741–36806.

[164] *In re Bethlehem Steel Corporation*, General Counsel Opinion No. 58. March 29, 1977 (1977 WL 28245 (E.P.A. G.C.)).

[165] USEPA. 1994. *Water Quality Standards Handbook: Second Edition*. EPA–823–B–94–005a. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

must meet the applicable WQS. (*See* CWA section 301(b)(1)(C)).

(3) Summary of Major Comments

In response to comments, EPA agrees that variances could be adopted on a multiple-discharger basis and can be renewed so long as the State and EPA conclude that such variances are consistent with the CWA and implementing regulations. In this regard, EPA allows grouping waters together in a watershed in a single variance application, provided that there is site-specific information to show how each individual water fits into the group in the context of any single variance and how each individual water meets the applicable requirements of 40 CFR 131.10(g). EPA disagrees that Florida law, at 403.201(2), F.S., prohibits the State from issuing variances for waters affected by the Federally-promulgated numeric criteria. Florida law at 403.201(2), F.S., provides that a variance may not be granted that would result in State requirements that are less stringent than a comparable Federal provision or requirement. As discussed above, a variance is a temporary modification to the designated use and thus to the associated water quality criteria that would otherwise apply to the receiving water. EPA's Federal rule, however, does not promulgate or revise any Florida designated uses. EPA's criteria are intended to protect the Class I and Class III designated uses that Florida already has in place. EPA's criteria do not apply where and when the use is something other than Class I or Class III, as would be the case for a variance. Rather, Florida would establish alternative criteria associated with the variance. Any variance would constitute a new or revised WQS subject to EPA review and approval pursuant to section 303(c) of the CWA.

C. Site-Specific Alternative Criteria

(1) Final Rule

EPA believes that there is benefit in establishing a specific procedure in the Federal rule for EPA adoption of Federal site-specific alternative criteria (SSAC) for the numeric chlorophyll *a*, TN, TP, and nitrate+nitrite criteria in this rule. In this rulemaking, EPA is promulgating a procedure whereby the Regional Administrator, Region 4, may establish a SSAC after providing for public comment on the proposed SSAC and the supporting documentation. (*See* 40 CFR 131.43(e)). This procedure allows any entity, including the State, to submit a proposed Federal SSAC directly to EPA for the Agency's review and assessment as to whether an adjustment to the applicable Federal numeric criteria is appropriate and warranted. The Federal SSAC process is separate and distinct from the State's SSAC processes in its WQS.

The Federal SSAC procedure allows EPA to determine that a revised site-specific chlorophyll *a*, TN, TP, or nitrate + nitrite numeric criterion should apply in lieu of the generally applicable criteria promulgated in this final rule where that SSAC is demonstrated to be protective of the applicable designated use(s). The promulgated procedure provides that EPA will solicit public comment on its determination. Because EPA's rule establishes this procedure, implementation of this procedure does not require withdrawal of Federally-promulgated criteria for affected water bodies for the Federal SSAC to be effective for purposes of the CWA. EPA has promulgated similar procedures for EPA granting of variances and SSACs in other Federally-promulgated WQS.[166]

EPA is aware of concerns expressed by some commenters that a waterbody may exceed the numeric criteria in this rule and still meet Florida's designated uses related to recreation, public health, and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. EPA recognizes that there may be certain situations where additional, new, or more specific data related to the local conditions or biology of a particular waterbody may well support an alternate site-specific numeric criteria which may appropriately be more (or less) stringent than the criteria in this final rule in order to ensure maintenance of instream designated uses and protection of downstream waters. EPA believes that the SSAC process is an appropriate mechanism to address such situations and is committed to acting on Federal SSAC applications intended to address such situations as expeditiously as possible.

The process for obtaining a Federal SSAC includes the following steps. First, an entity seeking a SSAC compiles the supporting data, conducts the analyses, develops the expression of the criterion, and prepares the supporting documentation demonstrating that alternative numeric criteria are protective of the applicable designated use. The "entity" may be the State, a city or county, a municipal or industrial discharger, a consulting firm acting on a behalf of a client, or any other individual or organization. The entity requesting the SSAC bears the burden of demonstrating that any proposed SSAC meets the requirements of the CWA and EPA's implementing regulations, specifically 40 CFR 131.11. Second, if the entity is not the State, the entity must provide notice of the proposed SSAC to the State, including all supporting documentation so that the State may provide comments on the proposal to EPA. Third, the Regional Administrator will evaluate the technical basis and protectiveness of the proposed SSAC and decide whether to publish a public notice and take comment on the proposed SSAC. The Regional Administrator may decide not to publish a public notice and instead return the proposal to the entity submitting the proposal, with an explanation as to why the proposed SSAC application did not provide sufficient information for EPA to determine whether it meets CWA requirements or not. If EPA solicits public comment on a proposed SSAC, upon review of comments, the Regional Administrator may determine that the Federal SSAC is appropriate to account for site-specific conditions and make that determination publicly available together with an explanation of the basis for the decision. The Regional Administrator may also determine that the Federal SSAC is not appropriate and make that determination publicly available together with an explanation of the basis for the decision.

To successfully develop a Federal SSAC for a given lake, stream, or spring, a thorough analysis is necessary that indicates how designated uses are being supported both in the waterbody itself and in downstream water bodies at concentrations of either TN, TP, chlorophyll *a*, or nitrate+nitrite that are either higher or lower than the Federally-promulgated applicable criteria. This analysis should have supporting documentation that consists of examining both indicators of longer-term response to multiple stressors, such as benthic macroinvertebrate health as determined by Florida's Stream Condition Index (SCI), and indicators of shorter-term response specific to nitrogen/phosphorus pollution, such as periphyton algal thickness or water column chlorophyll *a* concentrations. To pursue a Federal SSAC on a watershed-wide basis, the same types of procedures that EPA used to develop the Federally promulgated applicable criteria can be used with further refinements to the categorization of water bodies. For example, an entity could derive alternative instream protective TP and/or TN values using

[166] *See* 40 CFR 131.33(a)(3), 40 CFR 131.34(c), 40 CFR 131.36(c)(3)(iii), 40 CFR 131.38(c)(2)(v), 40 CFR 131.40(c).

EPA's approach by further sub-delineating the Nutrient Watershed Regions and providing the corresponding data, analysis and documentation to support derivation of an alternative criteria that is protective of the designated use that applies both to the smaller watershed regions as well as to downstream waters. This type of refined reference condition approach is described in EPA guidance manuals [167] and would be consistent with methods used to develop the Federally-promulgated criteria for Florida. In developing either a site-specific or watershed-wide Federal SSAC, it is necessary to ensure that values allowed in an upstream segment as a result of a SSAC provide for the attainment and maintenance of the WQS of downstream waters. It will be important to examine a stream system on a broader basis to ensure that a SSAC established for one segment does not result in adverse effects in nearby segments or downstream waters, such as a downstream lake.

This rule specifically identifies four approaches for developing SSAC. The first two approaches are replicating the approaches EPA used to develop stream and lake criteria, respectively, and applying these methods to a smaller subset of waters. The third approach for developing SSAC is to conduct a biological, chemical, and physical assessment of waterbody conditions. The fourth approach for developing SSAC is a general provision for using another scientifically defensible approach that is protective of the designated use. The first two approaches for developing SSAC replicate EPA's methods in deriving the stream and lake criteria set out in this final rule. To understand the necessary steps in this analysis, interested parties should refer to the complete documentation of these methods in the materials included in the rule docket.

The third approach for developing SSAC is to conduct a biological, chemical, and physical assessment of waterbody conditions. This is a more general approach than the replication approaches and would need additional detail and description of supporting rationale in the documentation submitted to EPA. The components of this approach could include, but not be limited to, evaluation of benthic macroinvertebrate health using the Stream Condition Index (SCI), presence or absence of native flora and fauna, chlorophyll *a* concentrations or periphyton density, average daily dissolved oxygen fluctuation, organic versus inorganic components of total nitrogen, habitat assessment, and hydrologic disturbance. This approach could apply to any waterbody type, with specific components of analysis tailored for the situation. The fourth approach for developing SSAC is a general provision for using another scientifically defensible approach that is protective of the designated use. This provision allows applicants to make a complete demonstration to EPA using methods not otherwise described in the rule or its statement of basis, consistent with 40 CFR 131.11(b)(1)(iii). This approach could potentially include use of mechanistic models or other data and information.

(2) Background and Analysis

A SSAC is an alternative value to criteria set forth in this final rule that would be applied on a watershed, area-wide, or water-body specific basis that meets the regulatory test of protecting the instream designated use, having a basis in sound science, and ensuring the protection and maintenance of downstream WQS. SSAC may be more or less stringent than the otherwise applicable Federal numeric criteria. In either case, because the SSAC must protect the same designated use and must be based on sound science (*i.e.*, meet the requirements of 40 CFR 131.11(a)), there is no need to modify the designated use or conduct a UAA. A SSAC may be appropriate when further scientific data and analyses can bring added precision or accuracy to express the necessary level or concentration of chlorophyll *a*, TN, TP, and/or nitrate+nitrite that protects the designated use for a particular waterbody.

(3) Summary of Major Comments

Many commenters expressed support for the concept of EPA's proposed SSAC procedure, although many also expressed concerns about the viability, requirements, expense, and time associated with the process. In EPA's proposed rule, the SSAC process was to be initiated by the State submitting a request to EPA. Many commenters were confused about the relationship between the Federal SSAC process and the State's Type 1 and Type 2 SSAC processes, and how the processes relate for purposes of the Federal rule. The Federal SSAC process is separate and independent from the State SSAC processes. A Federal SSAC is established by the Regional Administrator of EPA Region 4 after due notice and comment from the public. To resolve this confusion, and to provide a more direct means for entities other than the State to initiate the SSAC process, EPA's final rule provides that any entity may submit a request for a SSAC directly to the Regional Administrator. The final rule adds a requirement that entities submit proposed SSAC and supporting materials to the State at the same time those materials are submitted to EPA to ensure the State has the opportunity to submit comments to EPA.

As several commenters have pointed out, Florida WQS regulations currently do not authorize the State to adopt a SSAC as State WQS except where natural conditions are outside the limits of broadly applicable criteria established by the State (Section 62-302.800, F.A.C.). However, the State may choose to be the entity that submits a SSAC request to EPA under the Federal process described above and set forth at 40 CFR 131.43(e). There is no requirement that the State go through its own State-level Type 1 or Type 2 SSAC process before submitting a proposed SSAC to EPA for consideration under this rule.

Commenters included suggestions for specific approaches for developing SSAC as well as an "expedited" process for determination as a Federal SSAC. EPA agrees that many of the suggested approaches have merit for purposes of developing SSAC, and has adapted many of the suggestions to provide more information on approaches that would meet the general requirements for protective criteria. Many of the comments regarding an "expedited" process suggested a process where SSAC become effective automatically, without need for EPA review and approval. With the exception of State adjustment of lake criteria within a very specific and limited range accompanied by a specified data set and calculation as discussed in Section III.C(2)(e) above, the Agency does not agree with the view that criteria established in this rule can be revised without documentation and public notice and comment process as outlined above.[168] Another commenter asked about the potential to develop a SSAC on a "watershed-scale." EPA does not see any barrier to conducting such an analysis, where it can be demonstrated that the watershed-scale SSAC is protective for all waters in a particular grouping and meets the requirements of 40 CFR 131.11 and 40

[167] USEPA. 2000b. *Nutrient Criteria Technical Guidance Manual: Rivers and Streams*. EPA-822-B-00-002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

[168] EPA's criteria allow for one-time site-specific modifications to the promulgated lake criteria, without requiring those modifications to be submitted as SSAC. *See* 40 CFR 131.43(c)(1)(ii) and Section III.C(2)(e).

CFR 131.10(b). Many commenters expressed the desire to defer the applicability of promulgated criteria prior to developing a SSAC. The Federal SSAC portion of the rule, § 131.43(e), goes into effect 60 days after publication of this rule to allow this important work to proceed in advance of the effective date of 15 months after publication for the remaining provisions of the rule. The SSAC review process will depend in substantial part on the nature of the SSAC proposal itself: Its clarity, substance, documentation, and scientific rigor. Some commenters stated that EPA's requirement that Federal SSAC be scientifically defensible and protective of designated uses is too vague; however, it is the same requirement for criteria in the Federal WQS regulation. (*See* 40 CFR 131.11). EPA will consider the need for further developing supporting technical guidance in the future if it appears at that time that such guidance would help support the process.

D. Compliance Schedules

(1) Final Rule

Florida has adopted a regulation authorizing compliance schedules. That regulation, Subsection 62–620.620(6), F.A.C., is not affected by this final rule. The complete text of the Florida rules concerning compliance schedules is available at *https://www.flrules.org/gateway/RuleNo.asp?ID=62-620.620*. Florida is, therefore, authorized to grant compliance schedules, as appropriate, under its rule for WQBELs based on EPA's numeric criteria.

(2) Background and Analysis

A compliance schedule, or schedule of compliance, refers to "a schedule of remedial measures included in a 'permit,' including an enforceable sequence of interim requirements * * * leading to compliance with the CWA and regulations." (*See* 40 CFR 122.2, CWA section 502(17)). In an NPDES permit, WQBELs are effluent limits based on applicable WQS for a given pollutant in a specific receiving water (*See* NPDES Permit Writers Manual, EPA–833–B–96–003, December, 1996). EPA regulations provide that schedules of compliance may only be included in permits if they are determined to be "appropriate" given the circumstances of the discharge and are to require compliance "as soon as possible" (*See* 40 CFR 122.47).[169]

(3) Summary of Major Comments

EPA generally received favorable comment on its description of compliance schedules. Some commenters asked EPA to consider promulgating its own compliance schedule provisions as part of the final rule. Florida's regulations, however, already include an authorizing provision that allows NPDES permit writers to include compliance schedules in permits, where appropriate. Florida's regulations do not limit the criteria which may be subject to compliance schedules. Therefore, Florida may choose to issue permit compliance schedules for nitrogen/phosphorus pollution, as appropriate. As a result, there is no need for EPA to provide an additional compliance schedule authorizing provision in this final rule. EPA disagrees with commenters who assert that Florida's regulation at Subsection 62–620.620(6), F.A.C., authorizing compliance schedules applies only to industrial and domestic wastewater facilities. Chapter 62–620, F.A.C., sets out permit procedures for wastewater facilities or activities that discharge wastes into waters of the State or which will reasonably be expected to be a source of water pollution. (*See* Subsection 62–620.100(1), F.A.C.). Subsection 62–620.620(6), F.A.C., applies, therefore, more broadly than to just industrial and domestic wastewater facilities. In addition, Chapter 62–4, F.A.C., which sets out procedures on how to obtain a permit from FDEP, provides that permits may include a reasonable time for compliance with new or revised WQS. Subsection 62–4.160(10), F.A.C., does not limit the type of permits that may include such compliance schedules.

E. Proposed Restoration Water Quality Standard

(1) Final Rule

In EPA's January 2010 proposal, the Agency proposed a new WQS regulatory tool for Florida, referred to as "restoration WQS" for impaired waters. This provision was intended to allow Florida to retain full aquatic life protection (uses and criteria) for its water bodies while establishing a transparent phased WQS process that would result in implementation of enforceable measures and requirements to improve water quality over a specified time period to ultimately meet the long-term designated aquatic life use. For reasons discussed below and in EPA's response to comment document, EPA has decided not to promulgate a restoration WQS tool specifically for Florida, as proposed.

(2) Summary of Major Comments

EPA received a significant number of comments on its proposal that provided constructive and useful information for EPA to consider regarding the proposed restoration WQS provision. Such comments ranged from identifying additional needed requirements to concerns that the restoration WQS tool was so burdensome it would not be helpful. EPA evaluated the current, existing flexibility available to Florida to implement this final rule through variances, compliance schedules, permit reissuance cycles, permit reopener provisions, TMDL scheduling, and workload and administrative prioritization. These are all considerations that FDEP presently brings to the administration of its water quality program. EPA also considered the flexibility that this final rule offers through lake criteria adjustment provisions, alternative approaches to deriving downstream lake protection values and the SSAC process discussed above. The Agency concluded that the range of implementation tools available to the State in combination with a number of the provisions contained in this final rule provide adequate flexibility to implement EPA's numeric criteria finalized in this rule. Florida may use any of these existing tools or exercise its authority to propose additional tools in the future that allow implementation flexibility where demonstrated to be appropriate and consistent with the CWA and implementing regulations. Therefore, EPA believes that its decision not to finalize restoration WQS will not adversely affect Florida's ability to implement the Federal numeric criteria.

VI. Economic Analysis

State implementation of this rule may result in new or revised National Pollutant Discharge Elimination System (NPDES) permit conditions for point source dischargers, and requirements for nitrogen/phosphorus pollution treatment controls on other sources (*e.g.*, agriculture, urban runoff, and/or septic systems) through the development of additional Total Maximum Daily Loads (TMDLs) and Basin Management Action Plans (BMAPs). To provide information on the potential incremental costs associated with these related State actions, EPA conducted an analysis to estimate both the additional impaired waters that may be identified as a result of this final rule and the potential State of Florida requirements that may be

[169] Hanlon, Jim, USEPA Office of Wastewater Management. 2007, May 10. Memorandum to Alexis Stauss, Director of Water Division EPA Region 9, on "Compliance Schedules for Water Quality-Based Effluent Limitations on NPDES Permits."

necessary to assure attainment of applicable State water quality designated uses. EPA's analysis is fully described in the document entitled: "*Economic Analysis of Final Water Quality Standards for Nutrients for Lakes and Flowing Waters in Florida*," which can be found in the docket and record for this final rule.

An economic analysis of a regulation compares a likely scenario absent the regulation (the baseline) to a likely scenario with the regulation. The impacts of the regulation are measured by the resulting differences between these two scenarios (incremental impacts). However, the regulatory effect of this final rule can be interpreted in several ways, which can significantly influence the conditions considered appropriate for representing the baseline. On January 14, 2009 EPA made a determination that numeric nutrient water quality criteria were necessary to meet the requirements of the CWA in the State of Florida. In July 2009 the State of Florida released draft numeric nutrient criteria for lakes and streams.[170] Therefore, when the Agency proposed this rule for lakes and flowing waters in January 2010, EPA evaluated the incremental impacts of the proposed rule in comparison with the provisions of the Florida July 2009 draft criteria. Although the State subsequently did not proceed forward with those numeric criteria provisions, EPA has conducted the same evaluation as part of the economic analysis accompanying this final rule to illustrate the difference between Florida's draft approach and the provisions of this rule. Using this same baseline approach and the refined analysis methodology described below, EPA estimates the potential incremental costs associated with this rule as ranging between \$16.4 million/year and \$25.3 million/year.

An alternative interpretation of the impact of this final rule is that EPA is promulgating numeric criteria to address deficiencies in the State of Florida's current narrative nutrient criteria (current conditions approach), and the incremental impacts of this rule are those associated with the difference between EPA's numeric criteria and Florida's narrative criteria. Under this scenario, the baseline incorporates requirements associated with current water quality, impaired waters, and TMDLs that exist at the time of the analysis. The incremental impacts of this rule are the costs and benefits associated with additional pollution controls beyond those currently in place or required as a result of Florida's existing narrative criteria. This analysis is principally designed to gain an understanding of the potential costs and benefits associated with implementation of EPA's numeric criteria for lakes and flowing waters above and beyond the costs associated with State implementation of its current narrative nutrient criteria for those waters. For waters that the State of Florida has already identified as impaired, EPA expects that the effect of this final rule will be to shorten the time and reduce the resources necessary for the State of Florida to implement its existing regulatory and nonregulatory framework of tools, limits, measures and BMP guidance to initiate a broader, expedited, more comprehensive, and more effective approach to reducing nutrient loadings necessary to meet the numeric criteria that support current State designated uses. The further effect of this final rule will likely be the assessment and identification of additional waters that are impaired and not meeting the designated use set forth at Section I.B, and new or revised water quality-based effluent limits in NPDES permits. EPA's economic analysis quantifies the costs and cost savings associated with the identification of newly impaired waters and new or revised water quality-based effluent limits, but does not attempt to measure the costs and cost savings associated with addressing waters that are currently listed as impaired under Florida's existing narrative nutrient criteria (these costs are considered part of the baseline).

Although using the State of Florida's draft numeric criteria as a baseline provides one possible measure of the incremental impact associated with this final rule, the current conditions approach can provide valuable information to the State of Florida and the public about other potential costs and benefits that may be realized as a result of this final rule. To provide this additional information, and in part to respond to public comments on the economic analysis at proposal, this economic analysis also measures the incremental costs and benefits of this final rule using current conditions in the State of Florida as the baseline. Using this interpretation of the baseline, EPA estimates the potential incremental costs associated with this final rule as ranging between \$135.5 million per year and \$206.1 million per year. Although analyses using both baselines are described in EPA's economic analysis document entitled: "*Economic Analysis of Final Water Quality Standards for Nutrients for Lakes and Flowing Waters in Florida*," the analytical methods and results described below highlight the current conditions baseline in detail.

To develop this analysis, EPA first assessed State control requirements associated with current water quality, impaired waters, and total maximum daily loads (the baseline). EPA then assessed the costs and benefits associated with additional pollution controls beyond those currently in place or required to meet EPA's numeric criteria that support Florida designated uses. To estimate incremental point source costs, EPA gathered publicly available information and data on control technologies currently in place at wastewater treatment plants and other industrial facilities, and used Florida Department of Environmental Protection (FDEP) point source implementation procedures to project the potential additional treatment that the State may require as a result of applying the criteria in this final rule. EPA assessed potential non-point source control costs by using publicly available information and data to determine land uses near waters that would likely be identified as impaired under this rule, and using FDEP and the Florida Department of Agriculture and Consumer Services (FDACS) nonpoint source control procedures, estimated costs to implement agricultural best management practices (BMPs) the State may require in order to attain the new numeric criteria. EPA also estimated the potential costs of additional State control requirements for storm water runoff, and potential costs associated with upgrades of homeowner septic systems. EPA also assessed additional potential government regulatory costs of developing additional total maximum daily loads (TMDLs) for waters identified as impaired under this rule. Finally, EPA qualitatively and quantitatively described and estimated some of the potential benefits of complying with the new water quality standards. Because of the inherent uncertainties associated with the benefits analysis, potential benefits are likely underestimated compared to costs. Although it is difficult to predict with certainty how the State of Florida will implement these new water quality standards, the results of these analyses represent EPA's estimates of costs and benefits of this final rule.

A. Point Source Costs

Point sources of wastewater must have a National Pollution Discharge

[170] Florida Department of Environmental Protection, 2009, "Draft Technical Support Document: Development of Numeric Nutrient Criteria for Florida Lakes and Streams," available electronically at: *http://www.dep.state.fl.us/water/wqssp/nutrients/docs/tsd_nutrient_crit.docx.*

Elimination System (NPDES) permit to discharge into surface waters. EPA identified point sources potentially discharging nitrogen or phosphorus to lakes and flowing waters by evaluating EPA's NPDES Permit Compliance System (PCS) database. EPA identified all the industry codes associated with any permitted discharger with an existing numeric effluent limit or monitoring requirement for nitrogen or phosphorus. This analysis identified 193 point sources as having the potential to discharge nitrogen and/or phosphorus. The following table summarizes the number of point sources with the potential to discharge nitrogen and/or phosphorus.

TABLE VI(A)—POINT-SOURCES POTENTIALLY DISCHARGING NITROGEN AND/OR PHOSPHORUS TO FLORIDA LAKES AND FLOWING WATERS

Discharger category	Major dischargers [a]	Minor dischargers [b]	Total
Municipal Wastewater	43	42	85
Industrial Wastewater	57	51	108
Total	100	93	193

[a] Facilities discharging greater than one million gallons per day and likely to discharge toxic pollutants in toxic amounts.
[b] Facilities discharging less than one million gallons per day and not likely to discharge toxic pollutants in toxic amounts.

1. Municipal Waste Water Treatment Plant (WWTP) Costs

EPA considered the costs of known nitrogen and phosphorus treatment options for municipal WWTPs. Nitrogen and phosphorus removal technologies that are available can reliably attain an annual average total nitrogen (TN) concentration of approximately 3.0 mg/L or less and an annual average total phosphorus (TP) concentration of approximately 0.1 mg/L or less.[171] Wastewater treatment to these concentrations was considered target levels for the purpose of this analysis.

The NPDES permitting authority determines the need for water quality based effluent limits for point sources on the basis of analysis of reasonable potential to exceed water quality criteria. To estimate the potential incremental costs for WWTPs, the likelihood that WWTPs discharging to Florida lakes and flowing waters have reasonable potential to exceed the numeric criteria in this final rule should be evaluated. However, the site-specific data and information required to precisely determine reasonable potential for each facility was not available. Thus, on the basis that most WWTPs are likely to discharge nitrogen and phosphorus at concentrations above applicable criteria, EPA made the conservative assumption that all WWTPs have reasonable potential to exceed the numeric criteria.

For municipal wastewater, EPA estimated costs to reduce effluent concentrations to 3 mg/L or less for TN and 0.1 mg/L or less for TP using advanced biological nutrient removal (BNR). Although reverse osmosis and other treatment technologies may have the potential to reduce nitrogen and phosphorus concentrations even further, EPA believes that implementation of reverse osmosis applied on such a large scale has not been demonstrated as practical or necessary.[172] Such treatment has not been required for WWTPs by the State of Florida in the past, even those WWTPs under TMDLs with nutrient targets comparable to the criteria in this final rule. EPA believes that should state-of-the-art BNR technology together with other readily available physical and chemical treatment demonstrated to be effective in municipal WWTP operations not result in compliance with permit limits associated with meeting the new numeric nutrient criteria, then it is reasonable to assume that entities would first seek out other available means of attaining water quality standards such as reuse, nonpoint source reductions, site-specific alternative criteria, variances, and designated use modifications.

To estimate compliance costs for WWTPs, EPA identified current WWTP treatment performance using information obtained from NPDES permits and/or water quality monitoring reports. EPA assumed that WWTPs under existing TMDLs are currently meeting their wasteload allocation requirements and would not incur additional treatment costs. EPA further assumed that costs to WWTPs discharging to currently impaired waters are not attributable to this final rule because those costs would be incurred absent the rule (under the baseline). However, sufficient location information was not available to insure that all WWTPs discharging to impaired waters were identified. Thus, costs may be overstated to the extent that some WWTPs discharging to currently impaired waters are included in EPA's estimate. The following table summarizes EPA's best estimate of the number of potentially affected municipal WWTPs that may require additional treatment to meet the numeric criteria supporting State designated uses.

TABLE VI(A)(1)(a)—POTENTIAL ADDITIONAL NUTRIENT CONTROLS FOR MUNICIPAL WASTEWATER TREATMENT PLANTS

Discharge type	Number of dischargers				
	Additional reduction in TN and TP [a]	Additional reduction in TN only [b]	Additional reduction in TP only [c]	No incremental controls needed [d]	Total
Major	11	2	9	21	43
Minor	19	1	3	19	42

[171] U.S. EPA, 2008, "Municipal Nutrient Removal Technologies Reference Document, Volume 1—Technical Report," EPA 832–R–08–006.

[172] Treatment using reverse osmosis also requires substantial amounts of energy and creates disposal issues as a result of the large volume of concentrate that is generated.

TABLE VI(A)(1)(a)—POTENTIAL ADDITIONAL NUTRIENT CONTROLS FOR MUNICIPAL WASTEWATER TREATMENT PLANTS—Continued

Discharge type	Number of dischargers				
	Additional reduction in TN and TP [a]	Additional reduction in TN only [b]	Additional reduction in TP only [c]	No incremental controls needed [d]	Total
Total	30	3	12	40	85

[a] Includes dischargers without treatment processes capable of achieving the target levels or existing WLA for TN and TP, or for which the treatment train description is missing or unclear.
[b] Includes dischargers with chemical precipitation only and those with a wasteload allocations under a TMDL for TP only.
[c] Includes dischargers with MLE, four-stage Bardenpho, and BNR specified to achieve less than 3 mg/L and those with WLA under a TMDL for TN only.
[d] Includes dischargers with A^2/O, modified Bardenpho, modified UCT, oxidation ditches, or other BNR coupled with chemical precipitation and those with WLAs under a TMDL for both TN and TP.

An EPA study provides unit cost estimates for biological nutrient removal controls for various TN and TP performance levels.[173] To estimate costs for WWTPs, EPA used the average capital and average operation and maintenance (O&M) unit costs for technologies that achieve an annual average of 3 mg/L or less for TN and/or 0.1 mg/L or less for TP. EPA also estimated a maximum cost for TN and TP reduction by using the highest cost TN and TP removal technology (estimated by finding the maximum of annualized costs for each technology option). Using average and maximum unit costs and multiplying unit costs by flow reported in EPA's PCS database, EPA estimated total capital costs could be approximately $108 million to $219 million and operation and maintenance (O&M) costs could be approximately $12 million per year to $18 million per year. Total annual costs would be approximately $22.3 million per year to $38.1 million per year (capital costs annualized at 7% over 20 years). The following table summarizes estimated costs for municipal WWTPs.

TABLE VI(A)(1)(b)—POTENTIAL INCREMENTAL COSTS FOR MUNICIPAL WASTE WATER TREATMENT PLANTS

Cost component	Capital costs (millions) [a]	O&M costs (millions per year)	Annual costs (millions per year)
Advanced BNR	$108–$219	$12–$18	$22.3–$38.1

[a] Low estimate represents average of unit costs; high estimate represents costs for treatment processes that results in the highest annualized costs (annualized capital at 7% over 20 years plus O&M).

Using Florida's 2009 draft criteria as the baseline, municipal WWTP costs associated with this final rule are zero because treatment technologies needed to achieve Florida's 2009 draft criteria are the same as those needed to achieve the criteria in this final rule, even though the criteria themselves are somewhat different.

After EPA published its proposed criteria for Florida (75 FR 4173), several organizations in Florida developed alternative estimates of compliance costs for WWTPs that were substantially higher than EPA's estimated costs. EPA disagrees with these cost estimates because they included costs for nutrient controls that are beyond what would be required by Florida to meet the new numeric criteria. For example, the Florida Water Environment Association Utility Council (FWEAUC) estimated annual costs for WWTPs would be approximately $2.0 billion per year to $4.4 billion per year.[174] However, FWEAUC included in their analysis facilities that discharge to estuaries or coastal waters, and facilities that utilize deep well injection or generate reuse water which are not covered by this rule. FWEAUC also estimated costs to upgrade WWTPs regardless of the treatment that already exists at the facilities. Finally, FWEAUC assumed that all WWTPs will require expensive microfiltration and reverse osmosis control technology to comply with the new standard. EPA is not aware of any WWTPs in Florida that utilize microfiltration or reverse osmosis, even those discharging to currently impaired waters with TMDLs that have nutrient targets comparable to the criteria in this final rule. Thus, as noted above, EPA does not believe that this type of treatment technology for WWTPs in Florida has been demonstrated as practical or necessary. These differences appear to explain the discrepancy between FWEAUC and EPA estimates.

2. Industrial Point Source Costs

Incremental costs for industrial dischargers are likely to be facility-specific and depend on process operations, existing treatment trains, and composition of waste streams. EPA previously estimated that 108 industrial dischargers may potentially be affected by this rule (Table VI(A)). Of those 108 dischargers, EPA identified 38 of them as under an existing TMDL for nitrogen and/or phosphorus and 14 of them as discharging to waters listed as impaired for nutrients and/or dissolved oxygen. As with WWTPs, EPA assumed that industrial dischargers under an existing TMDL are currently meeting their wasteload allocation requirements and would not incur additional treatment costs, and costs at facilities discharging to currently impaired waters are not attributable to this final rule because those costs would be incurred absent the rule (under the baseline). To estimate the potential costs to the remaining 56 potentially affected

[173] U.S. EPA, 2008.

[174] Florida Water Environment Association Utility Council, 2009, "Numeric Nutrient Criteria Cost Implications for Florida POTWs," available electronically at: *http://www.fweauc.org/PDFs/FWEAUC%20letter%20to%20Crist%20re%20NNC%20Cost%20Implications%20for%20Fla%20POTWs%20with%20attachment.pdf.*

industrial facilities, EPA took a random sample of those facilities from each industry. EPA then analyzed their effluent data obtained from EPA's PCS database and other information in NPDES permits to determine whether or not they have reasonable potential to cause or contribute to an exceedance of the numeric nutrient criteria in this final rule. For those facilities with reasonable potential, EPA further analyzed their effluent data and estimated potential revised water quality based effluent limits (WQBEL) for TN and TP. If the data indicated that the facility would not be in compliance with the revised WQBEL, EPA estimated the additional nutrient controls those facilities would likely implement to allow receiving waters to meet State designated uses and the costs of those controls. EPA then calculated the average flow-based cost of compliance for the sampled facilities in each industrial category, and used the average cost to extrapolate to the potential cost for the total flow associated with all facilities in each category (*see* economic analysis support document for more information). Using this method, EPA estimated the potential costs for industrial dischargers could be approximately $25.4 million per year.

TABLE VI(A)(2)—POTENTIAL INCREMENTAL COSTS FOR INDUSTRIAL DISCHARGERS

Industrial category	Total number of facilities	Number of facilities sampled	Average sample cost ($/mgd/yr) [a]		Total annual costs [b]
Chemicals and Allied Products	9	2	$14,100	$1,116,800	
Electric Services	9	2	0		$0
Food	7	2	123,300		1,390,000
Mining	10	2	160,600	16,442,300	
Other	17	3	0	0	
Pulp and Paper	4	1	117,300	6,466,800	
Total	56	12		25,415,900	

[a] Calculated by dividing total annual sample discharger costs by total sample discharger flow. Note that where flow for a sample discharger is not available, EPA used the average flow for dischargers in that category and discharger type (major or minor).
[b] Represents average sample discharger unit cost multiplied by total flow of dischargers affected by the rule in each industrial category.

Using Florida's 2009 draft criteria as the baseline, industrial discharger costs associated with this final rule is zero because treatment technologies needed to achieve the Florida's 2009 draft criteria are the same as those needed to achieve the criteria in this final rule, even though the criteria themselves are somewhat different.

Several organizations in Florida developed alternative estimates of compliance costs for EPA's proposed rule that were substantially higher than EPA's estimated costs for industrial dischargers. EPA disagrees with these cost estimates because they assumed that facilities will need to install treatment technologies that are much more expensive than those that would likely be required by Florida to meet the numeric criteria. For example, FDEP estimated that the costs for industrial dischargers would be approximately $2.1 billion per year.[175] However, FDEP assumed that every industrial facility would treat their total discharge volume using reverse osmosis which EPA believes is impractical and unnecessary. In addition, FDEP estimated costs for reverse osmosis on the basis of each facility's maximum daily discharge flow instead of its reported design capacity (in some cases the maximum daily flow was more than double the design capacity). Installing treatment technology to handle maximum daily flows would be unnecessary because equalization basins or storage tanks (used to temporarily hold effluent during peak flows) would be a less expensive compliance strategy. Finally, EPA found no indication that industrial facilities in Florida have installed reverse osmosis for the purpose of complying with a nutrient-related TMDL, even those TMDLs with nutrient targets comparable to the criteria in this final rule. These differences appear to explain the discrepancy between FDEP and EPA estimates.

B. Incrementally Impaired Waters

To estimate nonpoint source incremental costs associated with State control requirements that may be necessary to assure attainment of designated uses, EPA first removed from further consideration any waters the State of Florida has already determined to be impaired or has established a TMDL and/or BMAP because these waters were considered part of the baseline for this analysis. EPA next identified Florida waters that may be identified as incrementally impaired using the criteria of this final rule, and then identified the watersheds surrounding those incrementally impaired waters. EPA analyzed FDEP's database of ambient water quality monitoring data and compared monitoring data for each waterbody with EPA's new criteria for TN and TP in lakes and flowing waters, and nitrate+nitrite concentrations in springs. To account for streams that may have downstream protection values (DPVs) as applicable criteria, streams intersecting lakes were assigned the applicable lake criteria. Costs may be overestimated because the method does not distinguish between upstream and downstream intersecting streams. Thus DPVs and additional controls may have been attributed to streams downstream of an impaired lake. EPA compiled the most recent five years of monitoring data, calculated the annual geometric mean for each waterbody identified by a waterbody identification number (WBID), and identified waters as incrementally impaired if they exceeded the applicable criteria in this final rule.

[175] Florida Department of Environmental Protection, 2010, "FDEP Review of EPA's 'Preliminary Estimate of Potential Compliance Costs and Benefits Associated with EPA's Proposed Numeric Nutrient Criteria for Florida'," p. 3.

TABLE VI(B)—SUMMARY OF POTENTIAL INCREMENTALLY IMPAIRED WATERS

Category	Number of water bodies			Total
	Lake	Stream [a]	Spring	
Total in State	1,310	3,901	126	5,337
Not Listed/Covered by TMDL [b]	1,099	3,608	119	4,826
Water Quality Monitoring Data for Nutrients [c]	878	1,273	72	2,223
Sufficient Data Available [d]	655	930	72	1,657
Potentially Exceeding Criteria (incrementally impaired) [e]	148	153	24	325

[a] Includes blackwater.
[b] As reported in TMDL documents and FDEP.
[c] Data within last 5 years meeting data quality requirements.
[d] Annual geometric means based on at least 4 samples with one sample from May to September and one sample from October to April in a given year.
[e] Annual geometric mean exceeding the applicable criteria more than once in a three year period.

C. Non-Point Source Costs

To estimate the potential incremental costs associated with controlling nitrogen/phosphorus pollution from non-point sources, EPA identified land areas near incrementally impaired waters using GIS analysis. EPA first identified all the 10-digit hydrologic units (HUCs) in Florida that contain at least a *de minimus* area of an incrementally impaired WBID (WBIDs were GIS polygons), and excluding those HUCs that contain at least a *de minimus* area of a currently impaired WBID. EPA then identified land uses using GIS analysis of data obtained from the State of Florida.[176]

1. Costs for Urban Runoff

EPA's GIS analysis indicates that urban land (excluding land for industrial uses covered under point sources) accounts for approximately seven percent of the land near incrementally impaired waters. EPA's analysis also indicates that urban runoff is already regulated on approximately one half of this land under EPA's storm water program requiring municipal storm sewer system (MS4) NPDES permits. Florida has a total of 28 large (Phase I) permitted MS4s serving greater than 100,000 people and 131 small (Phase II) permitted MS4s serving less than 100,000 people. MS4 permits generally do not have numeric nutrient limits, but instead rely on implementation of BMPs to control pollutants in storm water to the maximum extent practicable. Even those MS4s in Florida discharging to impaired waters or under a TMDL currently do not have numeric limits for any pollutant.

In addition to EPA's storm water program, several existing State rules are intended to reduce pollution from urban runoff. Florida's Urban Turf Fertilizer rule (administered by FDACS) requires a reduction in the amount of nitrogen and phosphorus that can be applied to lawns and recreational areas. Florida's 1982 storm water rule (Chapter 403 of Florida statues) requires storm water from new development and redevelopment to be treated prior to discharge through the implementation of BMPs. The rule also requires that older systems be managed as needed to restore or maintain the beneficial uses of waters, and that water management districts establish and implement other storm water pollutant load reduction goals. In addition, Chapter 62–40, F.A.C., "Water Resource Implementation Rule," establishes that storm water design criteria adopted by FDEP and the water management districts shall achieve at least 80% reduction of the average annual load of pollutants that cause or contribute to violations of WQS (95% reduction for outstanding natural resource waters). The rule also states that the pollutant loading from older storm water management systems shall be reduced as necessary to restore or maintain the designated uses of waters.

Although urban runoff is currently regulated under the statutes and rules described above, this final rule may indirectly result in changes to MS4 NPDES permit requirements for urban runoff so that Florida waters meet State designated uses. However, the combination of additional pollution controls required will likely depend on the specific nutrient reduction targets, the controls already in place, and the relative amounts of nitrogen/phosphorus pollution contained in urban runoff at each particular location. Because storm water programs are usually implemented using an iterative approach, with the installation of controls followed by monitoring and re-evaluation to determine the need for additional controls, estimating the complete set of pollution controls required to meet a particular water quality target would require site-specific analysis.

Although it is difficult to predict the complete set of potential additional storm water controls that may be required to meet the numeric criteria that supports State designated uses in incrementally impaired waters, EPA estimated potential costs for additional treatment by assessing the amount of urban land that may require additional pollution controls for storm water. FDEP has previously assumed that all urban land developed after adoption of Florida's 1982 storm water rule would be in compliance with this final rule.[177] Using this same assumption, EPA used GIS analysis of land use data obtained from the State of Florida[178] to identify the amount of remaining urban land located near incrementally impaired waters. Using this procedure, EPA estimated that up to 48,100 acres of Phase I MS4 urban land, 30,700 acres of Phase II MS4 urban land, and 30,600 acres of non-MS4 urban land may require additional storm water controls. EPA estimated costs of implementing controls for Phase I MS4 urban land based on a range of acres with 48,100 acres as the upper bound and zero acres as the lower bound because Phase I MS4 urban land already must implement controls to the "maximum extent practicable" and may not require additional controls if existing requirements are already fully implemented.

The cost of storm water pollution controls can vary widely. FDEP has assessed the cost of completed storm water projects throughout the State in dollars per acre treated.[179] Capital costs

[176] Florida Geological Data Library, 2009, "GIS Data: WBIDs," available electronically at: *http://www.fgdl.org/download/index.html.*

[177] Florida Department of Environmental Protection, 2010, "FDEP Review of EPA's 'Preliminary Estimate of Potential Compliance Costs and Benefits Associated with EPA's Proposed Numeric Nutrient Criteria for Florida'," p. 9.

[178] Florida Geological Data Library, 2009.

[179] Florida Department of Environmental Protection, 2010, appendix 3.

range from $62 to $60,300 per acre treated, with a median cost of $6,800 per acre. EPA multiplied FDEP's median capital cost per acre by the number of acres identified as requiring controls to estimate the potential additional storm water control costs that may be needed to meet the numeric criteria in this rule. EPA also used FDEP's estimate of operating and maintenance (O&M) costs as 5% of capital costs, and annualized capital costs using FDEP's discount rate of 7% over 20 years. EPA estimates the total annual cost for additional storm water controls could range between approximately $60.5 and $108.0 million per year. The following table summarizes these estimates.

TABLE VI(C)(1)—POTENTIAL INCREMENTAL URBAN STORM WATER COST SCENARIOS

Land type	Acres needing controls [a]	Capital cost (millions $) [b]	O&M cost (millions $) [c]	Annual cost (millions $) [d]
MS4 Phase I Urban	0–48,100	$0–$329.1	$0–$16.4	$0–$47.5
MS4 Phase II Urban	30,700	$210.0	$10.5	$30.3
Non-MS4 Urban	30,600	$208.8	$10.4	$30.2
Total	61,300–109,400	$418.8–$747.0	$20.9–$37.4	$60.5–$108.0

[a] Phase I MS4s range represents implementation of BMPs to the MEP resulting in compliance with EPA's rule or controls needed on all pre-1982 developed land; Phase II MS4s and urban land outside of MS4s represent controls needed on all pre-1982 developed land that is not low density residential.
[b] Represents acres needing controls multiplied by median unit costs of storm water retrofit costs obtained from FDEP.
[c] Represents 5% of capital costs.
[d] Capital costs annualized at 7% over 20 years plus annual O&M costs.

Using Florida's 2009 draft criteria as the baseline, potential incremental costs for urban storm water are estimated to range from $13.7 million per year to $27.2 million per year.

Several organizations in Florida developed alternative estimates of compliance costs for EPA's proposed rule that were substantially higher than EPA's estimated costs for urban storm water. EPA disagrees with these cost estimates because they utilized incorrect assumptions about the areas that would have to implement controls. For example, FDEP estimated costs for urban storm water controls at $1.97 billion per year.[180] However, FDEP estimated costs for pollution controls on urban land in watersheds that may not be listed as impaired, have already been listed as impaired, or will require controls under existing rules (*e.g.* land currently permitted under EPA's MS4 storm water program). In contrast, EPA estimated costs for urban storm water controls only for urban land with storm water flows to waters that may be listed as impaired as a result of this rule. This difference appears to explain the discrepancy between FDEP and EPA estimates.

2. Agricultural Costs

EPA's GIS analysis of land use indicates that agriculture accounts for about 19 percent of the land near incrementally impaired waters. Agricultural runoff can be a source of phosphorus and nitrogen to lakes and streams through the application of fertilizer to crops and pastures and from animal wastes. Some agricultural practices may also contribute nitrogen and phosphorus to groundwater aquifers that supply springs. For waters impaired by nitrogen/phosphorus pollution, the 1999 Florida Watershed Restoration Act established that agricultural BMPs should be the primary instrument to implement TMDLs. Thus, additional waters identified by the State as impaired under this rule may result in State requirements or provisions to reduce the discharge of nitrogen and/or phosphorus to incrementally impaired waters through the implementation of BMPs.

EPA estimated the potential costs of additional agricultural BMPs by evaluating land use data obtained from Florida's five water management districts. BMP programs designed for each type of agricultural operation and their costs were taken from a study of agricultural BMPs to help meet TMDL targets in the Caloosahatchee River, St. Lucie River, and Lake Okeechobee watersheds.[181] Three types of BMP programs were identified in this study. The first program, called the "Owner Implemented BMP Program," consists of a set of BMPs that land owners might implement without additional incentives. The second program, called the "Typical BMP Program," is the set of BMPs that land owners might implement under a reasonably funded cost share program or a modest BMP strategy approach. The third program, called the "Alternative Program," is a more expensive program designed to supplement the "Owner Implemented Program" and "Typical Program" if additional reductions are necessary.

The BMPs in the "Owner Implemented Program" and "Typical Program" are similar to the BMPs adopted by FDACS. EPA has found no indication that the "Alternative BMP Program," which includes storm water chemical treatment, has been required in historically nutrient impaired watersheds with significant contributions from agriculture for which TMDLs have been developed (*e.g.* Lake Okeechobee). Therefore, for purposes of this analysis, EPA believes it is reasonable to assume that nutrient controls for agricultural sources are best represented by the "Owner Implemented Program" and "Typical Program" described in the study used here.[182] EPA estimated potential incremental costs of BMPs by multiplying the number of acres in each agricultural category by the sum of unit costs for the "Owner Implemented Program" and "Typical Program." The following table summarizes the potential incremental costs of BMPs on agricultural lands near incrementally impaired lakes and streams for each agricultural category.

[180] Florida Department of Environmental Protection, 2010, p. 3.

[181] Soil and Water Engineering Technology, 2008, "Nutrient Loading Rates, Reduction Factors and Implementation Costs Associated with BMPs and Technologies," (report prepared for South Florida Water Management District).

[182] Soil and Water Engineering Technology, 2008.

TABLE VI(C)(2)(a)—POTENTIAL INCREMENTAL BMP COSTS FOR LAKES AND STREAMS

Agricultural category	Area (acres)[a]	"Owner implemented program" plus "typical program" unit costs ($/ac/yr)[e]	Total "owner implemented program" and "typical program" costs ($/yr)
Animal Feeding	1,814–1,846	18.56	33,671–34,260
Citrus	15,482–27,343	156.80	2,427,652–4,287,343
Cow Calf Production (Improved Pastures)	153,978–168,665	15.84	2,439,007–2,671,656
Cow Calf Production (Unimproved Pastures)	49,054–51,057	4.22	207,203–215,663
Cow Calf Production (Rangeland and Wooded)	74,449–75,790	4.22	314,474–320,136
Row Crop	7,846–9,808	70.40	552,352–690,453
Cropland and Pastureland (general).[b]	152,976–160,814	27.26	4,169,512–4,383,135
Sod/Turf Grass	2,007	35.20	70,631
Ornamental Nursery	840	70.00	58,783
Dairies	583–621	334.40	194,803–207,777
Horse Farms	1,632	15.84	25,857
Field Crop (Hayland) Production	194,181–215,168	18.56	3,603,996–3,993,521
Other Areas[c]	54,499–67,364	18.56	1,011,500–1,250,281
Total[d]	709,340–782,954		15,109,436–18,209,496

[a] Based on GIS analysis of land use data from five water management districts (for entire State) and FDACS BMP program NOI GIS data layer. Low end reflects acres in incrementally impaired HUCs (that are not included in HUCs for baseline impairment) that are not enrolled in BMPs under FDACS; high end reflects all acres in incrementally impaired HUCs, regardless of FDACS BMP enrollment.
[b] "Owner program" and "Typical Program" BMP unit costs based on average costs for improved pastures, unimproved/wooded pasture, row crops, and field crops.
[c] Includes FLUCCS Level 3 codes 2160, 2200, 2230, 2400, 2410, 2500, 2540, and 2550.
[d] Excludes land not in production.
[e] Soil and Water Engineering Technology, 2008, Nutrient Loading Rates, Reduction Factors and Implementation Costs Associated with BMPs and Technologies, Report prepared for South Florida Water Management District.

In addition to estimating potential costs associated with agricultural BMPs to reduce nitrogen/phosphorus pollution to lakes and streams as described above, EPA estimated potential costs associated with BMPs to protect groundwater aquifers that supply water to springs. Fertilizer application and other agricultural practices can significantly increase nutrient loadings to springs, especially those springs supplied by relatively large groundwater aquifers. EPA evaluated the potential incremental costs to meet the numeric criteria in this final rule for springs by assuming that all applicable agricultural operations may be identified for implementation of nutrient management. Nutrient management reduces over application of fertilizers by determining realistic yield expectations, the nitrogen requirements necessary to obtain those yields, and adjusting application methods and timing to minimize nitrogen pollution.

Nutrient management is a cost-effective way to reduce groundwater nitrogen, and may even result in cost savings to some farmers by reducing unnecessary fertilizer application. Therefore, for the purpose of this analysis, EPA assumed that all agricultural operations applying fertilizer to land would implement a nutrient management program, even those operations that are not associated with incrementally impaired waters. To estimate the potential costs of nutrient management, EPA estimated the amount of agricultural land where nutrient management could be applicable. EPA identified general agriculture[183] and specialty crops[184] as agricultural categories appropriate for nutrient management. EPA then used GIS analysis of land use data obtained from the State of Florida[185] to identify the land areas categorized as general agriculture or specialty crops. Approximately 4.9 million acres of agricultural land was identified as general agriculture and 1 million acres was identified as specialty crops. EPA further analyzed this agricultural land to identify the land near waters already listed as impaired for nutrients or under a TMDL. Similar to point sources, EPA assumed that nonpoint sources under an existing TMDL are currently meeting their load allocation requirements and would not incur additional costs, and costs to nonpoint sources associated with waters that are currently listed as impaired for nutrients are not attributable to this final rule because those costs would be incurred absent the rule (under the baseline). EPA also removed from this analysis land associated with incrementally impaired waters to avoid double counting the costs of BMPs that were already estimated to protect lakes and streams as described above. As a result of this analysis, approximately 1 million acres of general agriculture and 0.12 million acres of specialty crops was identified as land that may need to implement a nutrient management program to meet the numeric criteria for Florida springs in this final rule. Using unit costs of $10 per acre for general agriculture and $20 per acre for specialty crops obtained from Florida's Environmental Quality Incentive Program,[186] EPA estimated the annual cost of nutrient management could be approximately $4.7 million per year. The following table summarizes the estimated potential incremental costs of BMPs on agricultural lands to protect State designated uses of springs on the basis of the criteria in this final rule.

[183] Cropland and pastureland, cow calf production (improved pastures), cropland and pastureland (general), dairies, horse farms, and field crop (hayland) production.

[184] Citrus, row crops, sod/turf grass, and ornamental nursery.

[185] Florida Geological Data Library, 2009.

[186] Florida Environmental Quality Incentive Program, 2009, "FY 2009 Statewide Payment Schedules," available electronically at: *ftp://ftp-fc.sc.egov.usda.gov/FL/eqip/EQIP_FY2009PaySched_STATEWIDE_FINAL.pdf*.

TABLE VI(C)(2)(b)—POTENTIAL INCREMENTAL BMP COSTS FOR SPRINGS

Nutrient management program type	Total acres in Florida[a]	Acres identified for nutrient management[b]	Unit cost ($/acre)	Total cost	Annual cost ($/year)[c]
General Agriculture	4,885,643	1,003,973	$10	$10,039,729	$3,825,656
Specialty Crop	1,057,107	120,558	20	2,411,163	918,778
Total	5,942,750	1,124,531		12,450,892	4,744,433

[a] Excludes unimproved and woodland pastures, abandoned groves, aquaculture, tropical fish farms, open rural lands, and fallow cropland.
[b] Calculated by subtracting agricultural land near incrementally impaired waters needing controls and agricultural land types participating in FDACS BMP program (assuming all Tri-county agricultural area land is regular nutrient management land) from total land use area in Florida.
[c] Costs annualized at 7% over 3 years on basis of 3 year useful life.

The following table summarizes the total estimated potential incremental costs of BMPs on agricultural lands to meet the numeric criteria.

TABLE VI(C)(2)(c)—POTENTIAL ANNUAL INCREMENTAL COMPLIANCE COSTS FOR AGRICULTURE

Waterbody type	Applicable acres	Annual costs
Lakes and Streams	709,340–782,954	$15,109,400–$18,209,500
Springs	1,124,531	$4,744,400
Total	1,833,871–1,907,485	$19,853,900–$22,953,900

Using Florida's 2009 draft criteria as the baseline, potential incremental costs to agriculture are estimated to range from − $2.4 million per year (a negative cost represents a cost savings) to $2.1 million per year.

Several organizations in Florida developed alternative estimates of compliance costs for EPA's proposed rule that were substantially higher than EPA's estimated costs for agriculture. EPA disagrees with these cost estimates because they use incorrect assumptions that overestimate costs. For example, the FDACS estimated that costs for agriculture would be approximately $0.9 billion to $1.6 billion per year.[187] However, FDACS estimated BMP costs for all 13.6 million acres of agricultural land in the State of Florida. This land includes watersheds where waters are not expected to become listed as impaired due to this final rule (including coastal and estuarine watersheds), have already been listed as impaired, or will require controls under existing rules (*e.g.* animal feeding operations) and thus are not potentially affected by the rule. A portion of the agricultural land used by FDACS to estimate costs includes 4.8 million acres of forest, 98.1% of which the State of Florida has claimed current BMPs effectively protect surface waters[188] and thus EPA assumes will not require further controls. FDACS also estimated costs using the highest cost Alternative BMP Program. The Alternative BMP Program, which includes storm water chemical treatment, is not yet required in historically nutrient-impaired watersheds with significant contributions from agriculture. Thus, it is uncertain whether such controls would be necessary or required to meet the new numeric criteria which are intended to implement Florida's existing narrative criteria. In contrast, EPA estimated costs for BMPs that are likely to be necessary, and only on the agricultural land identified as incrementally impaired under this final rule (although costs could be higher in some cases if further reductions are found to be necessary). These differences appear to explain the discrepancy between FDACS and EPA estimates.

The alternative BMP program, which includes storm water chemical treatment, is not yet required in the study basins which have significant contributions from agriculture. Thus, for this analysis, EPA assumed that nutrient controls for agricultural sources are best represented by the owner/typical programs.

3. Septic System Costs

Some nutrient reductions from septic systems may be necessary for incrementally impaired waters to meet the numeric nutrient criteria in this final rule. Several nutrient-related TMDLs in Florida identify septic systems as a significant source of nitrogen/phosphorus pollution. Although properly operated and maintained systems can provide treatment equivalent to secondary wastewater treatment,[189] even properly functioning septic systems can be expected to contribute to nitrogen/phosphorus pollution at some locations.[190] Some of the ways to address pollution from septic systems may include greater use of inspection programs and repair of failing systems, upgrading existing systems to advanced nutrient removal, installation of decentralized cluster systems where responsible management entities would ensure reliable operation and maintenance, and connecting households and businesses to wastewater treatment plants. On the basis of current practice in the State of

[187] Florida Department of Agriculture and Consumer Services, 2010, "Consolidated Comments on Proposed EPA Numeric Nutrient Criteria for Florida's Lakes and Flowing Waters," p. 1, available electronically at: *http://www.floridaagwaterpolicy.com/PDF/FINAL_FDACS_Consolidated_Comments_on_Docket_ID_No_EPA_HQ_OW_2009_0596.pdf.*

[188] Florida Division of Forestry, Department of Agriculture and Consumer Services, 2010, "Silviculture Best Management Practices: 2009 Implementation Survey Report," available electronically at: *http://www.fl-dof.com/publications/2009_BMP_survey_report.pdf.*

[189] Petrus, K., 2003, "Total Maximum Daily Load for the Palatlakaha River to Address Dissolved Oxygen Impairment, Lake County, Florida," (Florida Department of Environmental Protection), available electronically at: *http://www.dep.state.fl.us/water/tmdl/docs/tmdls/final/gp1/palatlakaha_river_do_tmdl.pdf.*

[190] Florida Department of Environmental Protection, 2006, "TMDL Report. Nutrient and Unionized Ammonia TMDLs for Lake Jesup, WBIDs 2981 and 2981A," available electronically at: *http://www.dep.state.fl.us/water/tmdl/docs/tmdls/final/gp2/lake-jessup-nutr_ammonia-tmdl.pdf.*

Florida, EPA assumed that the most likely strategy to reduce nutrients loads from septic systems would be to upgrade existing conventional septic systems to advanced nutrient removal systems.

Septic systems in close proximity to surface waters are more likely to contribute nutrient loads to waters than distant septic systems. Florida Administrative Code provides that in most cases septic systems should be located at least 75 feet from surface waters (F.A.C. 64E–6.005(3)). In addition, many of Florida's existing nutrient-related TMDLs identify nearby failing septic systems as contributing to nutrient impairments in surface waters.

For this economic analysis, EPA assumed that some septic systems located near incrementally impaired lakes and streams may be required to upgrade to advance nutrient removal systems. However, the distance that septic systems can be safely located relative to these surface waters depends on a variety of site-specific factors. Because of this uncertainty, EPA conservatively assumed that septic systems located within 500 feet of any lake or stream in watersheds associated with incrementally impaired lakes or streams [191] may be identified for upgrade from conventional to advanced nutrient removal systems.

EPA identified the number of septic systems within 500 feet of any lake or stream in watersheds associated with incrementally impaired lakes and streams using GIS analysis on data obtained from the Florida Department of Health [192] that provides the location of active septic systems in the State. This analysis yielded 8,224 active septic systems that may potentially need to be upgraded from conventional to advanced nutrient removal systems to meet the numeric nutrient criteria in this final rule.

EPA evaluated the cost of upgrading existing septic systems to advanced nutrient removal systems. Upgrade costs range from $2,000 to $6,500 per system. For O&M costs, EPA relied on a study that compared the annual costs associated with various septic system treatment technologies including conventional onsite sewage treatment and disposal system and fixed film activated sludge systems.[193] This study estimated the incremental O&M costs for an advanced system to be $650 per year. Thus, based on annual O&M costs of $650 and annualizing capital costs at 7% over 20 years, annual costs could range from approximately $800 to $1,300 for each upgrade. EPA estimated the total annual costs of upgrading septic systems by multiplying this range of unit costs with the number of systems identified for upgrade. Using this method, total annual costs for upgrading septic systems to meet State designated uses could range from $6.6 million per year to $10.7 million per year.

Using Florida's 2009 draft criteria as the baseline, potential incremental costs to upgrade septic systems are estimated to range from $1.3 million per year to 2.2 million per year.

Several organizations in Florida developed alternative estimates of compliance costs for septic systems in EPA's proposed rule that were substantially higher than EPA's estimated costs. EPA disagrees with these cost estimates because they used incorrect assumptions that overestimate costs. For example, FDEP estimated that the costs related to septic systems would be approximately $0.9 billion per year to 2.9 billion per year.[194] However, FDEP assumed that 1,687,500 septic systems would require complete replacement (calculated as the proportion of all septic systems in the State of Florida on lots less than 3 acres assumed to discharge to fresh waters because all urban storm water discharges to freshwaters in that proportion). In contrast, EPA estimated costs to upgrade 8,224 septic systems to advanced nutrient removal systems that GIS analysis identified as located within 500 feet of any water within an incrementally impaired watershed.

D. Governmental Costs

This final rule may result in the identification of additional impaired waters that would require the development of additional TMDLs. As the principal State regulatory agency implementing water quality standard, the State of Florida may incur costs related to developing additional TMDLs. EPA's analysis identified 325 incrementally impaired waters potentially associated with this final rule. Because current TMDLs in Florida include an average of approximately two water bodies each, EPA estimates that the State of Florida may need to develop and adopt approximately 163 additional TMDLs. A 2001 EPA study found that the cost of developing a TMDL could range between $6,000 and $154,000, with an average cost of approximately $28,000.[195] [196] The low end of the range reflects the typical cost associated with TMDLs that are the easiest to develop and/or have the benefit of previous TMDL development for other pollutants. Because most of the incrementally impaired waters in EPA's analysis exceeded the criteria for both nitrogen and phosphorus, EPA assumed that TMDLs would need to be developed for both nitrogen and phosphorus. Under this assumption, EPA estimated the average TMDL cost to be approximately $47,000 ($28,000 on average for one pollutant, plus $6,000 on average for the other pollutant, and adjusting for inflation). For 163 TMDLs, total costs could be approximately $7.7 million. FDEP currently operates its TMDL schedule on a five-phase cycle that rotates through the five basins over five years. Under this schedule, completion of TMDLs for high priority waters will take 9 years; it will take an additional 5 years to complete the process for medium priority waters. Thus, assuming all the incremental impairments are high priority and FDEP develops the new TMDLs over a 9-year period, annual costs could be approximately $851,000 per year. Using Florida's 2009 draft criteria as the baseline, potential incremental costs to develop additional TMDLs could be approximately $261,000 per year.

Should the State of Florida submit current TMDL targets as Federal site specific alternative criteria (SSAC) for EPA review and approval, EPA believes it is reasonable to assume that information used in the development of the TMDLs will substantially reduce the time and effort needed to provide a scientifically defensible justification for such applications. Thus, EPA assumed that incremental costs associated with SSAC, if any, would be minimal.

Similarly, State and local agencies regularly monitor TN and TP in ambient waters. These data are the basis for the extensive IWR database the State of Florida maintains and which provided baseline water quality data for EPA's analyses. Because Florida is currently

[191] In this analysis EPA considered septic systems within 500 feet of any lake or stream in an incrementally impaired watershed rather than only within 500 feet of an incrementally impaired lake or stream to account for the possibility of some downstream transport of nutrients from nearby streams that may not themselves be classified as incrementally impaired.

[192] Florida Department of Health, 2010, "Bureau of Onsite Sewage GIS Data Files," available electronically at: *http://www.doh.state.fl.us/Environment/programs/EhGis/EhGisDownload.htm.*

[193] Chang, N., M. Wanielista, A. Daranpob, F. Hossain, Z. Xuan, J. Miao, S. Liu, Z. Marimon, and S. Debusk, 2010, "Onsite Sewage Treatment and Disposal Systems Evaluation for Nutrient Removal," (Stormwater Management Academy, University of Central Florida).

[194] Florida Department of Environmental Protection, 2010, p. 3.

[195] U.S. EPA, 2001, "The National Costs of the Total Maximum Daily Load Program (Draft Report)," (EPA–841–D–01–003).

[196] EPA did not adjust these estimates to account for potential reductions in resources required to develop TMDLs as a result of this final rule.

monitoring TN, TP, and chlorophyll *a* concentrations in many waters, EPA assumed that this final rule is unlikely to have a significant impact on costs related to water quality monitoring activities.

E. Benefits

Elevated concentrations of nutrients in surface waters can result in adverse ecological effects and negative economic impacts. Excess nutrients in water can cause eutrophication, which can lead to harmful (sometimes toxic) algal blooms, loss of rooted plants, and decreased dissolved oxygen, which can lead to adverse impacts on aquatic life, fishing, swimming, wildlife watching, camping, and drinking water. Excess nutrients can also cause nuisance surface scum, reduced food for herbivorous wildlife, fish kills, alterations in fish communities, and unsightly shorelines that can decrease property values. This final rule will help reduce nitrogen and phosphorus concentrations in lakes and flowing waters in Florida, and help improve ecological function and prevent further degradation that can result in substantial economic benefits to Florida citizens. EPA's economic analysis document entitled: *Economic Analysis of Final Water Quality Standards for Nutrients for Lakes and Flowing Waters in Florida* describes many of the potential benefits associated with meeting the water quality standards for nitrogen/phosphorus pollution in this rule.

Florida waters have historically provided an abundance of recreational opportunities that are a vital part of the State's economy. In 2007, over 4.3 million residents and over 5.8 million visitors participated in recreational activities related to freshwater beaches in Florida.[197] Of these residents and visitors, over 2.7 million residents and approximately 1 million visitors used freshwater boat ramps, over 3 million residents and over 900,000 visitors participated in freshwater non-boat fishing, and over 2.6 million residents and almost 1 million visitors participated in canoeing and kayaking. Florida also ranks first in the nation in boat registrations with 973,859 recreational boats registered across the State.

Tourism comprises one of the largest sectors of the Florida economy. In 2000, there were over 80.9 million visitors to the State of Florida, accounting for an estimated $65 billion in tourism spending.[198] In 2008, tourism spending resulted in approximately $3.9 billion in State sales tax revenues and contributed to the direct employment of more than 1 million Florida residents.[199] Florida has ranked first in the nation for the number of in-State anglers, angler expenditures, angler-supported jobs, and State and local tax revenues derived from freshwater fishing.[200] In 2006, total fishing-related expenditures by residents and nonresidents were more than $4.3 billion.[201] In addition, Florida's freshwater springs are an important inter- and intra-State tourist attraction.[202] In 2002, Blue Springs State Park estimated over 300,000 visitors per year.

Nitrogen/phosphorus pollution has contributed to severe water quality degradation of Florida waters. In 2010, the State of Florida reported approximately 1,918 miles of rivers and streams, and 378,435 acres of lakes that were known to be impaired by nitrogen/phosphorus pollution (the actual number of waters impaired for nutrients may be higher because many waters were not assessed).[203] As water quality declines, water resources have less recreational value. Waters impaired by nitrogen/phosphorus pollution may become unsuitable for swimming and fishing, and in some cases even unsuitable for boating. Nutrient-impaired waters also are less likely to support native plant and animal species, further lowering their value as tourist destinations.[204] Drinking water supplies may also be more expensive to treat as a result of nutrient impairments. Also, Florida citizens that depend on individual wells for their drinking water may need to consider whether on-site treatment is necessary to reduce elevated nitrate+nitrite levels. Freshwater springs are particularly at risk due to nitrate+nitrite.[205] [206] Silver Springs, the largest of Florida's springs, has experienced reduced ecosystem health and productivity over the past half century, due largely to nitrate+nitrite.[207] Nutrient impairment, characterized by algal blooms, reduced numbers of native species, and lower water quality, in turn leads to reduced demand and lower values for these resources.

Some of the benefits of reducing nitrogen and phosphorus concentrations can be monetized, at least in part, by translating these changes into an indicator of overall water quality (water quality index) and valuing these improvements in terms of willingness to pay (WTP) for the types of uses that are supported by different water quality levels. For this analysis, EPA used a Water Quality Index (WQI) approach to link specific pollutant levels with suitability for particular recreational uses. Using Florida water quality data, available information on WTP, and an analytical approach described in EPA's accompanying economic assessment report and supporting references, EPA estimated potential changes that would result from implementation of this final rule and their value to a distribution of full-time and part-time Florida residents. This approach recognizes that there are differences in WTP among a population and values for households. Using the mid-point WTP and current conditions as the baseline, total monetized benefits are estimated to be approximately $21.7 million per year for improvements to flowing waters and $6.6 million per year for improvements to lakes for a total of $28.2 million per year. Although these monetized benefits estimates do not account for all potential economic benefits, they help to partially demonstrate the economic importance of restoring and protecting Florida waters from the impacts of nitrogen/phosphorus pollution.

[197] Florida Department of Environment, 2008, "State Comprehensive Outdoor Recreation Plan (SCORP)," available electronically at: *http://www.dep.state.fl.us/parks/planning/default.htm.*

[198] VISIT Florida, 2010, available electronically at: *http://media.visitflorida.org/research.php.*

[199] VISIT Florida, 2010.

[200] Bonn, Mark A. and Frederick W. Bell., 2003, Economic Impact of Selected Florida Springs on Surrounding Local Areas. For Florida Department of Environmental Protection. Available electronically at: *http://www.dep.state.fl.us/springs/reports/files/EconomicImpactStudy.doc.*

[201] 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Florida. U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. Available electronically at: *http://myfwc.com/docs/Freshwater/2006_Florida_NationalSurvey.pdf.*

[202] Florida Department of Environmental Protection, 2008.

[203] Florida Department of Environmental Protection, 2010, "Integrated Water Quality Assessment for Florida: 2010 305(b) and 303(d) List Update," available electronically at: *http://www.dep.state.fl.us/water/docs/2010_Integrated_Report.pdf.*

[204] Zheng, Lei and Michael J. Paul., 2006, *Effects of Eutrophication on Stream Ecosystems.* Available electronically at: *http://n-steps.tetratech-ffx.com/PDF&otherFiles/literature_review/Eutrophication%20effects%20on%20streams.pdf.*

[205] Florida Department of Environment, "Deep Trouble: Getting to the Source of Threats to Springs," accessed on October 1, 2010 at: *http://www.floridasprings.org/protection/threats/.*

[206] Munch, D.A., D.J. Toth, C. Huang, J.B. Davis, C.M. Fortich, W.L. Osburn, E.J. Phlips, E.L. Quinlan, M.S. Allen, M.J. Woods, P. Cooney, R.L. Knight, R.A. Clarke and S.L. Knight., 2006, "Fifty-year retrospective study of the ecology of Silver Springs, Florida," (SJ2007–SP4).

[207] Florida Department of Environment, 2008, Summary and Synthesis of the Available Literature on the Effects of Nutrients on Spring Organisms and Systems," available at: *http://www.dep.state.fl.us/springs/reports/files/UF_SpringsNutrients_Report.pdf.*

F. Summary

The following table summarizes EPA's estimates of potential incremental costs and benefits associated with additional State requirements to meet the numeric criteria that supports State designated uses. Because of uncertainties in the pollution controls ultimately implemented by the State of Florida, actual costs may vary depending on the procedures for assessing waters for compliance and the site-specific source reductions needed to meet the new numeric criteria.

TABLE VI(F)(a)—SUMMARY OF POTENTIAL ANNUAL COSTS
[millions of 2010 dollars per year]

Source sector	Annual costs
Municipal Waste Water Treatment Plants.	\$22.3–\$38.1
Industrial Dischargers	\$25.4
Urban Storm Water	\$60.5–\$108.0
Agriculture	\$19.9–\$23.0
Septic Systems	\$6.6–\$10.7
Government/Program Implementation.	\$0.9
Total	\$135.5–\$206.1

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action." Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action. This final rule does not establish any requirements directly applicable to regulated entities or other sources of nitrogen/phosphorus pollution. Moreover, existing narrative water quality criteria in State law already require that nutrients not be present in waters in concentrations that cause an imbalance in natural populations of flora and fauna in lakes and flowing waters in Florida.

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* Burden is defined at 5 CFR 1320.3(b). It does not include any information collection, reporting, or record-keeping requirements.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this action on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

Under the CWA WQS program, States must adopt WQS for their waters and must submit those WQS to EPA for approval; if the Agency disapproves a State standard and the State does not adopt appropriate revisions to address EPA's disapproval, EPA must promulgate standards consistent with the statutory requirements. EPA also has the authority to promulgate WQS in any case where the Administrator determines that a new or revised standard is necessary to meet the requirements of the Act. These State standards (or EPA-promulgated standards) are implemented through various water quality control programs including the NPDES program, which limits discharges to navigable waters except in compliance with an NPDES permit. The CWA requires that all NPDES permits include any limits on discharges that are necessary to meet applicable WQS.

Thus, under the CWA, EPA's promulgation of WQS establishes standards that the State implements through the NPDES permit process. The State has discretion in developing discharge limits, as needed to meet the standards. This final rule, as explained earlier, does not itself establish any requirements that are applicable to small entities. As a result of this action, the State of Florida will need to ensure that permits it issues include any limitations on discharges necessary to comply with the standards established in the final rule. In doing so, the State will have a number of choices associated with permit writing. While Florida's implementation of the rule may ultimately result in new or revised permit conditions for some dischargers, including small entities, EPA's action, by itself, does not impose any of these requirements on small entities; that is, these requirements are not self-implementing. Thus, I certify that this rule will not have a significant economic impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

This final rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or Tribal governments or the private sector. The State may use these resulting water quality criteria in implementing its water quality control programs. This final rule does not regulate or affect any entity and, therefore, is not subject to the requirements of sections 202 and 205 of UMRA.

EPA determined that this final rule contains no regulatory requirements that might significantly or uniquely affect small governments. Moreover, WQS, including those promulgated here, apply broadly to dischargers and are not uniquely applicable to small governments. Thus, this final rule is not subject to the requirements of section 203 of UMRA.

E. Executive Order 13132 (Federalism)

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. EPA's authority and responsibility to promulgate Federal WQS when State standards do not meet the requirements of the CWA is well established and has been used on various occasions in the past. The final rule will not substantially affect the relationship between EPA and the States and territories, or the distribution of power or responsibilities between EPA and the various levels of government. The final rule will not alter Florida's considerable discretion in implementing these WQS. Further, this final rule will not preclude Florida from adopting WQS that EPA concludes meet the requirements of the CWA, after promulgation of the final rule, which would eliminate the need for these Federal standards and lead EPA to withdraw them. Thus, Executive Order 13132 does not apply to this final rule.

Although section 6 of Executive Order 13132 does not apply to this action, EPA had extensive communication with the State of Florida to discuss EPA's concerns with the State's water quality criteria and the Federal rulemaking process.

F. Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments)

Subject to the Executive Order 13175 (65 FR 67249, November 9, 2000) EPA may not issue a regulation that has Tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by Tribal governments, or EPA consults with Tribal officials early in the process of developing the proposed regulation and develops a Tribal summary impact statement. EPA has concluded that this action may have Tribal implications. However, the rule will neither impose substantial direct compliance costs on Tribal governments, nor preempt Tribal law.

In the State of Florida, there are two Indian Tribes, the Seminole Tribe of Florida and the Miccosukee Tribe of Indians of Florida, with lakes and flowing waters. Both Tribes have been approved for treatment in the same manner as a State (TAS) status for CWA sections 303 and 401 and have Federally-approved WQS in their respective jurisdictions. These Tribes are not subject to this final rule. However, this rule may impact the Tribes because the numeric criteria for Florida will apply to waters adjacent to the Tribal waters. EPA met with the Seminole Tribe on January 19, 2010 and requested an opportunity to meet with the Miccosukee Tribe to discuss EPA's proposed rule, although a meeting was never requested by the Tribe.

G. Executive Order 13045 (Protection of Children From Environmental Health and Safety Risks)

This action is not subject to EO 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in EO 12866, and because the Agency's promulgation of this rule will result in the reduction of environmental health and safety risks that could present a disproportionate risk to children.

H. Executive Order 13211 (Actions That Significantly Affect Energy Supply, Distribution, or Use)

This rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This final rulemaking does not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations)

Executive Order (EO) 12898 (Feb. 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule does not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it will afford a greater level of protection to both human health and the environment if these numeric criteria are promulgated for Class I and Class III waters in the State of Florida.

K. Congressional Review Act

The Congressional Review Act 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A "major rule" cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule is effective March 6, 2012, except for 40 CFR 131.43(e), which is effective February 4, 2011.

List of Subjects in 40 CFR Part 131

Environmental protection, Water quality standards, Nitrogen/phosphorus pollution, Nutrients, Florida.

Dated: November 14, 2010.
Lisa P. Jackson,
Administrator.

■ For the reasons set out in the preamble, 40 CFR part 131 is amended as follows:

PART 131—WATER QUALITY STANDARDS

■ 1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

Subpart D—[Amended]

■ 2. Section 131.43 is added effective February 4, 2011 to read as follows:

§ 131.43 Florida.

(a)–(d) [Reserved]

(e) *Site-specific alternative criteria.* (1) The Regional Administrator may determine that site-specific alternative criteria shall apply to specific surface waters in lieu of the criteria established for Florida waters in this section, including criteria for lakes, criteria for streams, and criteria for springs. Any such determination shall be made consistent with § 131.11.

(2) To receive consideration from the Regional Administrator for a determination of site-specific alternative criteria, an entity shall submit a request that includes proposed alternative numeric criteria and supporting rationale suitable to meet the needs for a technical support document pursuant to paragraph (e)(3) of this section. The entity shall provide the State a copy of all materials submitted to EPA, at the time of submittal to EPA, to facilitate the State providing comments to EPA. Site-specific alternative criteria may be based on one or more of the following approaches.

(i) Replicate the process for developing the stream criteria in this section.

(ii) Replicate the process for developing the lake criteria in this section.

(iii) Conduct a biological, chemical, and physical assessment of waterbody conditions.

(iv) Use another scientifically defensible approach protective of the designated use.

(3) For any determination made under paragraph (e)(1) of this section, the Regional Administrator shall, prior to making such a determination, provide for public notice and comment on a proposed determination. For any such proposed determination, the Regional Administrator shall prepare and make available to the public a technical support document addressing the specific surface waters affected and the justification for each proposed determination. This document shall be made available to the public no later than the date of public notice issuance.

(4) The Regional Administrator shall maintain and make available to the public an updated list of determinations made pursuant to paragraph (e)(1) of this section as well as the technical support documents for each determination.

(5) Nothing in this paragraph (e) shall limit the Administrator's authority to modify the criteria established for Florida waters in this section, including criteria for lakes, criteria for streams, and criteria for springs.

■ 3. Section 131.43 is revised effective March 6, 2012 to read as follows:

§ 131.43 Florida.

(a) *Scope.* This section promulgates numeric criteria for nitrogen/phosphorus pollution for Class I and Class III waters in the State of Florida. This section also contains provisions for site-specific alternative criteria.

(b) *Definitions.*—(1) *Canal* means a trench, the bottom of which is normally covered by water with the upper edges of its two sides normally above water.

(2) *Clear, high-alkalinity lake* means a lake with long-term color less than or equal to 40 Platinum Cobalt Units (PCU) and Alkalinity greater than 20 mg/L $CaCO_3$.

(3) *Clear, low-alkalinity lake* means a lake with long-term color less than or equal to 40 PCU and alkalinity less than or equal to 20 mg/L $CaCO_3$.

(4) *Colored lake* means a lake with long-term color greater than 40 PCU.

(5) *Lake* means a slow-moving or standing body of freshwater that occupies an inland basin that is not a stream, spring, or wetland.

(6) *Lakes and flowing waters* means inland surface waters that have been classified as Class I (Potable Water Supplies) or Class III (Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife) water bodies pursuant to Rule 62–302.400, F.A.C., excluding wetlands, and are predominantly fresh waters.

(7) *Nutrient watershed region* means an area of the State, corresponding to drainage basins and differing geological conditions affecting nutrient levels, as delineated in Table 2.

(8) *Predominantly fresh waters* means surface waters in which the chloride concentration at the surface is less than 1,500 milligrams per liter.

(9) *South Florida Region* means those areas south of Lake Okeechobee and the Caloosahatchee River watershed to the west of Lake Okeechobee and the St. Lucie watershed to the east of Lake Okeechobee.

(10) *Spring* means a site at which ground water flows through a natural opening in the ground onto the land surface or into a body of surface water.

(11) *State* means the State of Florida, whose transactions with the U.S. EPA in matters related to 40 CFR 131.43 are administered by the Secretary, or officials delegated such responsibility, of the Florida Department of Environmental Protection (FDEP), or successor agencies.

(12) *Stream* means a free-flowing, predominantly fresh surface water in a defined channel, and includes rivers, creeks, branches, canals, freshwater sloughs, and other similar water bodies.

(13) *Surface water* means water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the Earth's surface.

(c) *Criteria for Florida waters*—(1) *Criteria for lakes.* (i) The applicable criteria for chlorophyll *a*, total nitrogen (TN), and total phosphorus (TP) for lakes within each respective lake class are shown on Table 1.

TABLE 1

A	B	C	
Lake Color[a] and Alkalinity	Chl-a (mg/L)[b,*]	TN (mg/L)	TP (mg/L)
Colored Lakes[c]	0.020	1.27 [1.27–2.23]	0.05 [0.05–0.16]

TABLE 1—Continued

A	B	C	
Lake Color[a] and Alkalinity	Chl-a (mg/L)[b,*]	TN (mg/L)	TP (mg/L)
Clear Lakes, High Alkalinity[d]	0.020	1.05 [1.05–1.91]	0.03 [0.03–0.09]
Clear Lakes, Low Alkalinity[e]	0.006	0.51 [0.51–0.93]	0.01 [0.01–0.03]

[a] Platinum Cobalt Units (PCU) assessed as true color free from turbidity.
[b] Chlorophyll *a* is defined as corrected chlorophyll, or the concentration of chlorophyll *a* remaining after the chlorophyll degradation product, phaeophytin *a*, has been subtracted from the uncorrected chlorophyll *a* measurement.
[c] Long-term Color > 40 Platinum Cobalt Units (PCU)
[d] Long-term Color ≤ 40 PCU and Alkalinity > 20 mg/L $CaCO_3$
[e] Long-term Color ≤ 40 PCU and Alkalinity ≤ 20 mg/L $CaCO_3$
* For a given waterbody, the annual geometric mean of chlorophyll *a*, TN or TP concentrations shall not exceed the applicable criterion concentration more than once in a three-year period.

(ii) Baseline criteria apply unless the State determines that modified criteria within the range indicated in Table 1 apply to a specific lake. Once established, modified criteria are the applicable criteria for all CWA purposes. The State may use this procedure one time for a specific lake in lieu of the site-specific alternative criteria procedure described in paragraph (e) of this section.

(A) The State may calculate modified criteria for TN and/or TP where the chlorophyll *a* criterion-magnitude as an annual geometric mean has not been exceeded and sufficient ambient monitoring data exist for chlorophyll *a* and TN and/or TP for at least the three immediately preceding years. Sufficient data include at least four measurements per year, with at least one measurement between May and September and one measurement between October and April each year.

(B) Modified criteria are calculated using data from years in which sufficient data are available to reflect maintenance of ambient conditions. Modified TN and/or TP criteria may not be greater than the higher value specified in the range of values in column C of Table 1 in paragraph (c)(1)(i) of this section. Modified TP and TN criteria may not exceed criteria applicable to streams to which a lake discharges.

(C) The State shall notify the public and maintain a record of these modified lake criteria, as well as a record supporting their derivation. The State shall notify EPA Region 4 and provide the supporting record within 30 days of determination of modified lake criteria.

(2) *Criteria for streams.* (i) The applicable instream protection value (IPV) criteria for total nitrogen (TN) and total phosphorus (TP) for streams within each respective nutrient watershed region are shown on Table 2.

TABLE 2

Nutrient watershed region	Instream protection value criteria	
	TN (mg/L)*	TP (mg/L)*
Panhandle West[a]	0.67	0.06
Panhandle East[b]	1.03	0.18
North Central[c]	1.87	0.30
West Central[d]	1.65	0.49
Peninsula[e]	1.54	0.12

Watersheds pertaining to each Nutrient Watershed Region (NWR) were based principally on the NOAA coastal, estuarine, and fluvial drainage areas with modifications to the NOAA drainage areas in the West Central and Peninsula Regions that account for unique watershed geologies. For more detailed information on regionalization and which WBIDs pertain to each NWR, *see* the Technical Support Document.

[a] Panhandle West region includes: Perdido Bay Watershed, Pensacola Bay Watershed, Choctawhatchee Bay Watershed, St. Andrew Bay Watershed, and Apalachicola Bay Watershed.
[b] Panhandle East region includes: Apalachee Bay Watershed, and Econfina/Steinhatchee Coastal Drainage Area.
[c] North Central region includes the Suwannee River Watershed.
[d] West Central region includes: Peace, Myakka, Hillsborough, Alafia, Manatee, Little Manatee River Watersheds, and small, direct Tampa Bay tributary watersheds south of the Hillsborough River Watershed.
[e] Peninsula region includes: Waccasassa Coastal Drainage Area, Withlacoochee Coastal Drainage Area, Crystal/Pithlachascotee Coastal Drainage Area, small, direct Tampa Bay tributary watersheds west of the Hillsborough River Watershed, Sarasota Bay Watershed, small, direct Charlotte Harbor tributary watersheds south of the Peace River Watershed, Caloosahatchee River Watershed, Estero Bay Watershed, Kissimmee River/Lake Okeechobee Drainage Area, Loxahatchee/St. Lucie Watershed, Indian River Watershed, Daytona/St. Augustine Coastal Drainage Area, St. John's River Watershed, Nassau Coastal Drainage Area, and St. Mary's River Watershed.

* For a given waterbody, the annual geometric mean of TN or TP concentrations shall not exceed the applicable criterion concentration more than once in a three-year period.

(ii) *Criteria for protection of downstream lakes.* (A) The applicable criteria for streams that flow into downstream lakes include both the instream criteria for total phosphorus (TP) and total nitrogen (TN) in Table 2 in paragraph (c)(2)(i) and the downstream protection value (DPV) for TP and TN derived pursuant to the provisions of this paragraph. A DPV for stream tributaries (up to the point of reaching water bodies that are not streams as defined by this rule) that flow into a downstream lake is either the allowable concentration or the allowable loading of TN and/or TP applied at the point of entry into the lake. The applicable DPV for any stream shall be determined pursuant to paragraphs (c)(2)(ii)(B), (C), or (D) of this section. Contributions from stream tributaries upstream of the point of entry location must result in attainment of the DPV at the point of entry into the lake. If the DPV is not attained at the point of entry into the lake, then the collective set of streams in the upstream watershed does not attain the DPV, which is an applicable water quality criterion for the water segments in the upstream watershed. The State or EPA may establish additional DPVs at upstream tributary locations that are consistent with attaining the DPV at the point of entry into the lake. The State or EPA also have discretion to establish DPVs to account for a larger watershed area (*i.e.*, include waters beyond the point of reaching water bodies that are not streams as defined by this rule).

(B) In instances where available data and/or resources provide for use of a scientifically defensible and protective lake-specific application of the

BATHTUB model, the State or EPA may derive the DPV for TN and/or TP from use of a lake-specific application of BATHTUB. The State and EPA are authorized to use a scientifically defensible technical model other than BATHTUB upon demonstration that use of another scientifically defensible technical model would protect the lake's designated uses and meet all applicable criteria for the lake. The State or EPA may designate the wasteload and/or load allocations from a TMDL established or approved by EPA as DPV(s) if the allocations from the TMDL will protect the lake's designated uses and meet all applicable criteria for the lake.

(C) When the State or EPA has not derived a DPV for a stream pursuant to paragraph (c)(2)(ii)(B) of this section, and where the downstream lake attains the applicable chlorophyll *a* criterion and the applicable TP and/or TN criteria, then the DPV for TN and/or TP is the associated ambient instream levels of TN and/or TP at the point of entry to the lake. Degradation in water quality from the DPV pursuant to this paragraph is to be considered nonattainment of the DPV, unless the DPV is adjusted pursuant to paragraph (c)(2)(ii)(B) of this section.

(D) When the State or EPA has not derived a DPV pursuant to paragraph (c)(2)(ii)(B) of this section, and where the downstream lake does not attain applicable chlorophyll *a* criterion or the applicable TN and/or TP criteria, or has not been assessed, then the DPV for TN and/or TP is the applicable TN and/or TP criteria for the downstream lake.

(E) The State and EPA shall maintain a record of DPVs they derive based on the methods described in paragraphs (c)(2)(ii)(B) and (C) of this section, as well as a record supporting their derivation, and make such records available to the public. The State and EPA shall notify one another and provide a supporting record within 30 days of derivation of DPVs pursuant to paragraphs (c)(2)(ii)(B) or (C) of this section.

(3) *Criteria for springs.* The applicable nitrate+nitrite criterion is 0.35 mg/L as an annual geometric mean, not to be exceeded more than once in a three-year period.

(d) *Applicability.* (1) The criteria in paragraphs (c)(1) through (3) of this section apply to lakes and flowing waters, excluding flowing waters in the South Florida Region, and apply concurrently with other applicable water quality criteria, except when:

(i) State water quality standards contain criteria that are more stringent for a particular parameter and use;

(ii) The Regional Administrator determines that site-specific alternative criteria apply pursuant to the procedures in paragraph (e) of this section; or

(iii) The State adopts and EPA approves a water quality standards variance to the Class I or Class III designated use pursuant to § 131.13 that meets the applicable provisions of State law and the applicable Federal regulations at § 131.10.

(2) The criteria established in this section are subject to the State's general rules of applicability in the same way and to the same extent as are the other Federally-adopted and State-adopted numeric criteria when applied to the same use classifications.

(e) *Site-specific alternative criteria.* (1) The Regional Administrator may determine that site-specific alternative criteria shall apply to specific surface waters in lieu of the criteria established in paragraph (c) of this section. Any such determination shall be made consistent with § 131.11.

(2) To receive consideration from the Regional Administrator for a determination of site-specific alternative criteria, an entity shall submit a request that includes proposed alternative numeric criteria and supporting rationale suitable to meet the needs for a technical support document pursuant to paragraph (e)(3) of this section. The entity shall provide the State a copy of all materials submitted to EPA, at the time of submittal to EPA, to facilitate the State providing comments to EPA. Site-specific alternative criteria may be based on one or more of the following approaches.

(i) Replicate the process for developing the stream criteria in paragraph (c)(2)(i) of this section.

(ii) Replicate the process for developing the lake criteria in paragraph (c)(1) of this section.

(iii) Conduct a biological, chemical, and physical assessment of waterbody conditions.

(iv) Use another scientifically defensible approach protective of the designated use.

(3) For any determination made under paragraph (e)(1) of this section, the Regional Administrator shall, prior to making such a determination, provide for public notice and comment on a proposed determination. For any such proposed determination, the Regional Administrator shall prepare and make available to the public a technical support document addressing the specific surface waters affected and the justification for each proposed determination. This document shall be made available to the public no later than the date of public notice issuance.

(4) The Regional Administrator shall maintain and make available to the public an updated list of determinations made pursuant to paragraph (e)(1) of this section as well as the technical support documents for each determination.

(5) Nothing in this paragraph (e) shall limit the Administrator's authority to modify the criteria in paragraph (c) of this section through rulemaking.

(f) *Effective date.* This section is effective March 6, 2012, except for § 131.43(e), which is effective February 4, 2011.

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