

**FACT SHEET
FOR
STATE OF FLORIDA
DOMESTIC WASTEWATER
FOR TOTAL NITROGEN**

1. INTRODUCTION

The Federal Total Maximum Daily Load (TMDL) has been established for the Lower St. Johns River. For the implementation of TMDL adopted, a Lower St. Johns River Basin Management Action Plan (BMAP) has been developed. To provide a single entity an opportunity to meet their allocations more efficiently, options were provided to create aggregate permits. The aggregate permit allows a single entity with multiple wastewater facilities to combine their Total Nitrogen (TN) wasteload allocations to provide for more flexibility in meeting the TMDL loads.

This fact sheet is a companion document to the draft National Pollutant Discharge Elimination System (NPDES) Permit for JEA (JEA - Aggregate TN TMDL Permit). The fact sheet explains the nature of the proposed discharge, the Department Environmental Protection's decisions on limiting the pollutants in the wastewater, and the regulatory and technical basis for those decisions.

2. GENERAL INFORMATION

PERMIT NAME: JEA - Aggregate TN TMDL Permit

PERMIT NUMBER: FL0620564

POINT SOURCES

Arlington East WRF - FL0026441

Latitude: 30° 20' 49" N Longitude: 81° 32' 33" W

Beacon Hills WWTF - FL0026778

Latitude: 30° 23' 20" N Longitude: 81° 35' 15" W

Buckman WWTF - FL0026000

Latitude: 30° 21' 10" N Longitude: 81° 37' 46" W

District II WWTF - FL0026450

Latitude: 30° 25' 32" N Longitude: 81° 37' 07" W

Jacksonville Heights WWTF - FL0023671

Latitude: 30° 14' 15" N Longitude: 81° 45' 05" W

Julington Creek WWTF - FL0043591

Latitude: 30° 06' 17" N Longitude: 81° 37' 40" W

Mandarin WRF - FL0023493

Latitude: 30° 10' 50" N Longitude: 81° 37' 35" W

Monterey WWTF - FL0023604

Latitude 30° 19' 45" N and Longitude 81° 36' 10" W

Royal Lakes WWTF - FL0026751

Latitude: 30° 12' 42" N Longitude: 81° 33' 46" W

San Jose WWTF - FL0023663

Latitude: 30° 14' 50" N Longitude: 81° 37' 13" W

San Pablo WWTF - FL0024767

Latitude: 30° 16' 45" N Longitude: 81° 26' 15" W

Southwest District WWTF - FL0026468

Latitude: 30° 13' 50" N Longitude: 81° 43' 10" W

Woodmere WWTF - FL0026786

Latitude: 30° 23' 14" N Longitude: 81° 37' 33" W

St. Johns River Power Park - FL0037869

Latitude: 30° 26' 1.16" N Longitude: 81° 33' 9.98" W

NAME OF PERMITTEE: JEA

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PERMIT REVIEWERS Jeff S. Martin, P.E., Wastewater Section – NED FDEP
Domestic Wastewater Section – Tallahassee Office –
FDEP

3. SYSOPSIS OF APPLICATION

(1) Chronology of Application.

Application Date: February 29, 2008
Additional Information Date: September 5, 2008

(2) Type of Treatment Facilities

Domestic Wastewater Treatment Wastewaters.
Municipal-owned treatment works.
Standard Industrial Classification Code: 4952.

(3) Description of the Treatment Facilities

JEA owns and operates fourteen existing wastewater treatment facilities (Arlington East WRF (FL0026441), Beacon Hills WWTF (FL0026778), Buckman WWTF (FL0026000), District II WWTF (FL0026450), Jacksonville Heights WWTF (FL0023671), Julington Creek WWTF (FL0043591), Mandarin WRF (FL0023493), Monterey WWTF (FL0023604), Royal Lakes WWTF (FL0026751), San Jose WWTF (FL0023663), San Pablo WWTF (FL0024767), Southwest District WWTF (FL0026468), Woodmere WWTF (FL0026786), and St. Johns River Power Park (FL0037869) which discharge the final treated effluent to the Lower St. Johns River Basin.

i) Arlington East WRF (Permit ID: FL0026441):

Arlington East WRF is an existing 20.0 MGD annual average daily flow (AADF) permitted capacity complete mix activated sludge domestic wastewater treatment facility (WWTF). JEA has applied a permit modification for constructions to improve the biological nutrient removal (BNR) treatment level and expand the permitted capacity of the WWTF from 20.00 MGD AADF to 25.00 MGD AADF. The WWTF is located at 1555 Millcoie Road, Jacksonville, Florida 32225, Duval County.

The final treated effluent is either reused via public access spray irrigation system (R-001) or discharged to the St. Johns River from Outfall D-001 (Named D-1AE).

The 25.0 MGD annual average daily flow (AADF) permitted discharge to St. Johns River (Class III marine waters – WBID 2213B) at Discharge Location (D-001A) which is approximately 450 feet in length from the shore and discharges at a depth of approximately 31 feet. The point of discharge is located approximately at latitude 30° 20' 49" N, longitude 81° 32' 33" W.

ii) Beacon Hills Subdivision WWTF (Permit ID: FL0026778)

Beacon Hills Subdivision WWTF is an existing activated sludge domestic wastewater treatment facility which can be operated in either the extended aeration mode or the contact stabilization mode. The design capacity in the extended aeration mode and in the contact stabilization mode is 0.836 MGD AADF and 1.30 MGD AADF, respectively. The WWTF is located at 4894 Ashley Manor Way, Jacksonville, Florida 32225, Duval County. The final treated effluent is discharged to St. John's River (Class III marine waters – WBID 2213C) at Discharge Location (D-001 (Named D-1BH)) which is approximately 150 feet in length and discharges at a depth of approximately 26 feet. The point of discharge is located approximately at latitude 30° 23' 21" N, longitude 81° 31' 11" W.

iii) Buckman WWTF (Permit ID: FL0026000)

Buckman WWTF is an existing 52.5 MGD annual average daily flow (AADF) permitted capacity activated sludge wastewater treatment facility which can operate in the plug flow or complete mix mode. The WWTF is located at 2221 Buckman Street, Jacksonville, FL 32206-3396, Duval County.

The final treated effluent is discharge to St. Johns River (Class III marine waters – WBID 2213D) at Discharge Location (D001 (named D-1BM)). The outfall discharges at a depth of approximately 30.5 feet. The point of discharge is located approximately at latitude 30° 21' 00" N, longitude 81° 37' 16" W.

iv) District II WWTF (Permit ID: FL0026450)

District II WWTF is an existing 10.0 MGD annual average daily flow (AADF) permitted capacity wastewater treatment facility consisting of two existing 5.0 MGD conventional activated sludge

domestic wastewater treatment facilities. Major process components include influent screening, grit removal, primary sedimentation, aeration, secondary clarification, chlorination, and dechlorination.

The final treated effluent is either reused via slow-rate restricted public access and industrial user (cooling tower - Northside Generating Station) or discharged to St. Johns River (Class III marine waters – WBID 2213C) at Discharge Location (D-001(named D-1DT)) which is approximately 600 feet in length and discharges at a depth of approximately 13 feet. The point of discharge is located approximately at latitude 30° 24' 29" N, longitude 81° 36' 25" W.

v) Jacksonville Heights WWTF (Permit ID: FL0023671)

Jacksonville Heights WWTF is an existing 2.5 MGD annual average daily flow (AADF) permitted capacity conventional activated sludge wastewater treatment facility. Major process components include influent screening, grit removal, aeration, secondary clarification, filtration, ultraviolet disinfection. The WWTF is located at 5957 Tampico Road, Jacksonville, FL 32244, Duval County.

The final treated effluent is discharged to a stormwater canal to Fishing Creek (Class III fresh waters – WBID 2324) to Ortega River (Class III predominantly marine Water – WBID 2213P) to St. Johns River (Class III predominantly marine water – WBID 2213E) at Discharge Location D-001 (Named D-1JH). The point of discharge is located approximately at latitude 30° 14' 15" N, longitude 81° 45' 05" W.

vi) Julington Creek Plantation WWTF (Permit ID: FL0043591)

Julington Creek Plantation WWTF is an existing 1.0 million gallons per day (MGD) annual average daily flow (AADF) permitted capacity domestic wastewater treatment facility utilizing Modified Ludzak-Ettinger (MLE) process. The facility meets Class I reliability standards. The facility is located at 1638 Davis Pond Boulevard, Jacksonville, Florida, St. Johns County.

The primary method of disposal is reuse of reclaimed water via spray irrigation to public access reuse sites. The filtered and chlorinated reclaimed water (high level disinfection) shall be conveyed to Golf Course Lake Number 4 and then land applied. The permittee is also authorized to apply reclaimed water to the rapid rate infiltration basin (RIB) system. Surface water discharges, which include the limited wet weather discharge and Apricot Act discharge, are the alternative (backup) disposal methods.

An existing 0.476 MGD annual average daily flow (AADF) or 173.7 million gallons (MG) discharge under the APRICOT Act (Section 403.086(7) of Florida Statutes) to the St. Johns River (Class III predominantly marine water – WBID 2213H) at Discharge Location/Outfall D-001 which is 16- inch pipe diameter, 2,200 ft from the shore at a depth of 6 ft below the surface water.

An existing permitted discharge of final treated effluent to the St. Johns River (Class III predominantly marine water – WBID 2213H) at Discharge Location/Outfall D-001 which is 16- inch pipe diameter, 2,200 ft from the shore at a depth of 6 ft below the surface water.). The D-002 is utilized only during periods of heavy rainfall and is classified as a limited wet weather discharge (LWWD).

Some of the effluent discharged from Julington Creek Plantation WWTF to the St. Johns River (Class III predominantly marine water – WBID 2213H) from the Outfall D-001/D-001 (named D-1JC). The point of discharge is located approximately at latitude 30 ° 05' 48" N, longitude 81 ° 38' 32" W.

vii) Mandarin Water Reclamation Facility (Permit ID: FL0023493)

Mandarin WRF is an existing 8.75 MGD annual average daily flow (AADF) permitted capacity advanced secondary domestic wastewater treatment facility. JEA also applies for permit to construct and expand the permitted capacity of the WWTF from 8.75 MGD to 10.00 MGD AADF. The WWTF is located at 10828 Hampton Road, Jacksonville, Florida 32257, Duval County.

The final treated effluent is either discharged to the St. Johns River or reused via public access spray irrigation after receiving high-level disinfection.

The surface water discharge to the St. Johns River (Class III marine waters – WBID 2213G) at discharge location (D-001 (named D-001MD)) which is a 42-inch diameter outfall pipe consisting of approximately 1,180 feet in discharge piping. It includes 100 two-inch diffusers every six feet beginning approximately 500 feet from shore and extending to the end (600 feet) at a depth of approximately 10 feet. The Mandarin WRF outfall point of discharge is located approximately at latitude 30° 11' 1.9" N, longitude 81° 38' 46.2" W.

viii) Monterey WWTF (Permit ID: FL0023604)

Monterey WWTF is an existing 3.60 MGD annual average daily flow (AADF) permitted capacity activated sludge wastewater treatment facility using Sequencing Batch Reactor (SBR) process. Major process components include influent screening, grit removal, SBR cells, and ultraviolet disinfection. The WWTF is located at 5802 Harris Street, Jacksonville, Florida, Duval County.

The final treated effluent is discharged to the Saint Johns River (Class III marine waters WBID 2213D) at Discharge Location (D-001 (named D-1MO)) from an outfall which is approximately 730 feet in length and discharges at a depth of approximately 10.74 feet. The point of discharge is located approximately at latitude 30° 19' 45" North and longitude 81° 36' 10" West.

ix) Royal Lakes WWTF (Permit ID: FL0026751)

Royal Lakes is an existing 3.25 MGD annual average daily flow (AADF) permitted capacity conventional activated sludge WWTF consisting of two steel rings plants (named Plant 1 and Plant 2) that operate simultaneously. The WWTF is located at 5509 Western Way, Jacksonville, Florida 32256, Duval County.

The final treated effluent is discharged to the St. Johns River (Class III predominantly marine waters – WBID 2213F) at Discharge Location (D-001 (named D-1RL)) which is 24-inch pipe diameter, located approximately 880 feet in from the shore, and discharges at a depth of approximately 15 feet below the surface water. The point of discharge is located approximately at latitude 30 ° 13' 38" N, longitude 81 ° 37' 28" W.

x) San Jose WWTF (Permit ID: FL0023663)

San Jose WWTF is an existing 2.25 MGD AADF permitted capacity complete mix activated sludge treatment facility. Major process components include influent screening, grit removal, aeration, secondary clarification, filtration, ultraviolet disinfection. The WWTF is located at 7128 Balboa Road, Jacksonville, FL 32217, Duval County.

The final treated effluent is discharged to the St. Johns River (Class III, marine waters WBID 2213E) at Discharge Location (D-001 (named D-1SJ)) which is approximately 5000 feet in length and discharges at a depth of approximately 10 feet. The point of discharge is located approximately at latitude 30° 14' 50" N, longitude 81° 37' 13" W.

xi) San Pablo WWTF (Permit ID: FL0024767)

San Pablo WWTF was an existing 0.75 MGD annual average daily flow (AADF) permitted capacity extended aeration domestic wastewater treatment facility which was located at 7128 Balboa Road, Jacksonville, FL 32217, Duval County.

The final treated effluent was discharged to a canal to Pablo Creek (Class III marine waters WBID) to Intracoastal Waterway (Class III marine water WBID) at outfall D-001 (named D-1SP) which is located approximately at latitude 30 ° 16' 45" N, longitude 81 ° 26' 15" W.

San Pablo WWTF has been phased out. The wastewater has been sent to Arlington East WWTF for treatment and disposal/reuse.

xii) Southwest District WWTF (Permit ID: FL0026468)

Southwest District WWTF is an existing 10.00 MGD AADF conventional (complete mix) activated sludge wastewater treatment facility with influent screening, grit removal, aeration basins, secondary clarification, ultraviolet disinfection, and post aeration. The aeration basins may be operated in complete-mix or plug-flow modes with anoxic zones and recycle lines for nutrient removal. JEA also applies for permit to construct and expand the permitted capacity of the WWTF from 10.00 MGD to 14.00 MGD AADF. Domestic wastewater residuals are stabilized by aerobic digestion, gravity thickened and hauled to the Buckman Biosolids Disposal Facility (BDF) for disposal. The WWTF is located at 5420 118th Street, Jacksonville, Florida, Duval County.

The final treated effluent is discharged to St. Johns River (Class III Marine waters WBID 2213F) at Discharge Location (D-001(named D-1SD)). The outfall is approximately 1008 feet in length and discharges at a depth of approximately 15 feet. The point of discharge is located approximately at latitude 30° 14' 50" N, longitude 81° 40' 45" W.

xiii) Woodmere WWTF (Permit ID: FL0026786)

Woodmere WWTF was an existing 0.5 MGD AADF permitted capacity conventional activated sludge domestic wastewater treatment facility which consisted of an influent bar screens, a flow equalization basin, three aeration basins, a secondary clarifier, dual chlorine contact chambers, and a sulfur dioxide dechlorination unit. The WWTF was located at 5710 Edenfield Road, Jacksonville, Florida, Duval County.

The final treat effluent was discharged to St. Johns River (Class III marine waters WBID 2213C) at Discharge Location (D-001 (named D-1WM)) which is approximately 450 feet in length and discharges at a depth of approximately 10 feet below water surface. The point of discharge is located approximately at latitude 30° 23' 14" N, longitude 81° 37' 33" W.

Woodmere WWTF has been phased out. The wastewater has been sent to Arlington East WWTF for treatment and disposal/reuse.

xiv) St. Johns River Power Park (Permit ID: FL0037869)

St. Johns River Power Park consists of two fossil fuel powered steam electric generating units (Unit 1 and Unit 2) with a total nominal rating of 1360 MW. The facility discharge consists of non-contact cooling water, sanitary treatment system wastewater, coal pile runoff, solid waste runoff, steam

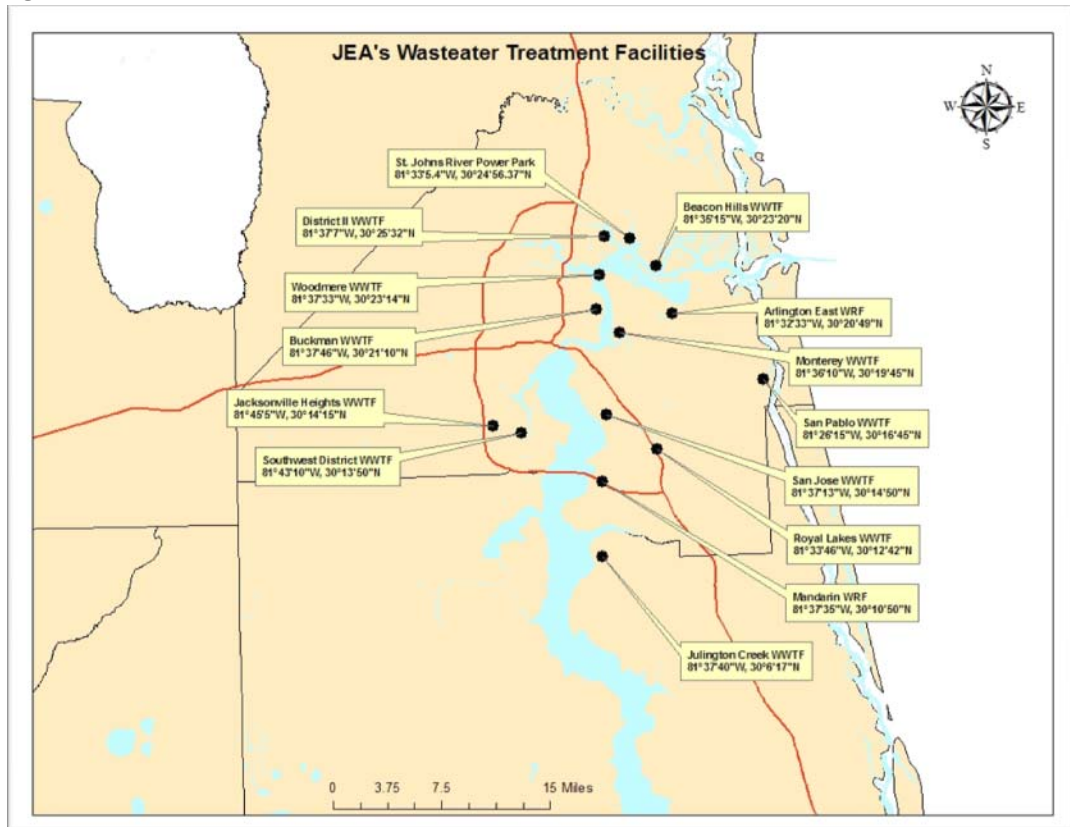
generator blowdown, industrial and non-industrial stormwater and cooling tower makeup water. The facility is located off New Berlin Road in Duval County.

The effluent is discharged to the St. John's River (Class III marine waters WWBID 2213C) through Outfall D-001 (**D-001- Main Plant Discharge**), located approximately at latitude 30° 24' 56.37" N, longitude 81° 33' 5.36" W.

(4) Description of Receiving Waterbody:

The fourteen wastewater treatment facilities discharge their final treated effluent to Lower St. Johns River Basin (Class III – Predominately Marine Water), HUC# 03080103, WBIDs: 2213A, 2213B, 2213C, 2213D, 2213E, 2213F, 2213G, 2213H.

Figure 1: Location of WWTFs and their outfalls



4. BASIS FOR EFFLUENT AND MONITORING REQUIREMENTS

(1) The following table provides the basis for Part I. A.:

a. Outfalls (Class III Marine water):

Parameters	Limit	Basis	Rationale
Flow, Arlington East WRF (FL0026441), (MGD AADF)	20.0 (before expansion) 25.0 (after expansion)	Annual Average Annual Average	62-600.400(3)(b) FAC BPJ

Parameters	Limit	Basis	Rationale
	Report	Monthly Average	
Flow, Beacon Hills WWTF (FL0026778), (MGD AADF)	0.836 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Buckman WWTF (FL0026000) , (MGD AADF)	52.5 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, District II WWTF (FL0026450), (MGD AADF)	10.0 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Jacksonville Heights WWTF (FL0023671), (MGD AADF)	2.5 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Julington Creek WWTF (FL0043591), (MGD AADF)	0.467 (Apricot) Report (LWWD)	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Mandarin WRF (FL0023493), (MGD AADF)	8.75 (before expansion) 10.0 (after expansion) Report	Annual Average Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Monterey WWTF (FL0023604), (MGD AADF)	3.60 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Royal Lakes WWTF (FL0026751),(MGD AADF)	3.25 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, San Jose WWTF (FL0023663),(MGD AADF)	2.25 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, San Pablo WWTF, (AADF)	0.75 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Southwest District WWTF (FL0026468),(MGD AADF)	10.0(before expansion) 14.0(after expansion) Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
Flow, Woodmere WWTF (FL0026786) ,(MGD AADF)	0.5 Report	Annual Average Monthly Average	62-600.400(3)(b) FAC BPJ
St. Johns River Power Park (FL0037869), (MGD)	Report Report	Annual Average Monthly Average	
Flow, Monthly volume discharge from Outfalls (MG)	Report	Weekly Total	BPJ
Nitrogen, Total (MG/L)	Report	Annual Average	62-302.300, FAC

Parameters	Limit	Basis	Rationale
	Report Report Report	Monthly Average Weekly Average Single Sample Max.	62-600. 430 & 510 FAC, 62-650 FAC & 62-600.740(1)(b)2.b. FAC 62-600.740(1)(b)2.c. FAC 62-600.740(1)(b)2.d. FAC
Nitrogen, Total (Lbs/yr)	Report	Annual (12 month rollover) Mass Load	62-302.300, FAC 62-304.415, FAC 62-600. 430 & 510 FAC, 62-650 FAC & 62-600.740(1)(b)2.b. FAC 62-600.740(1)(b)2.c. FAC 62-600.740(1)(b)2.d. FAC
Nitrogen, Total (Lbs/month)	Report	Monthly Mass Load	62-302.300, FAC 62-600. 430 & 510 FAC, 62-650 FAC & 62-600.740(1)(b)2.b. FAC 62-600.740(1)(b)2.c. FAC 62-600.740(1)(b)2.d. FAC

b. Discussions on the Limitations:

In order to calculate the total mass loads from the fourteen wastewater treatment facilities, the JEA shall calculate the annual mass load of total nitrogen from each wastewater treatment facility—listed in Condition I.A.1 of the permit.

The monthly mass load and ~~annually~~ mass loads of total nitrogen shall be calculated as follows:

▪ Monthly Mass Load TN (ML)

$$ML \text{ (Lbs/Month)} = \text{Flow} \left(\frac{MG}{Mon} \right) \times TN \left(\frac{mg}{L} \right) \times 8.34 \left(\frac{L \text{ Lbs}}{MG \text{ mg}} \right)$$

Where:

ML = Monthly mass load of total nitrogen from each treatment facility; (Lbs/month)

Flow = Monthly volume of effluent discharged from Outfalls D-1AE, D-1BH, D-1BM, D-1DT, D-1JH, D-1JC, D-1MD, D-1MT, D-1RL, D-1SJ, D-1SP, D-1SW (MG), and D-1WM.

TN = Concentration of TN monitored at EFD-AE (EFD-1 of the Arlington East WRF), EFD-BH (EFD-1 of the Beacon Hill WWTF), EFD-BM (EFD-1 of the Buckman WWTF), EFD-DT (EFF-1 of the District II WWTF), EFD-JH (EFD-1 of Jacksonville Height WWTF), EFD-MD (EFF-1 of the Mandarin WRF), EFD-MT (EFD-1 of Monterey WWRF), EFD-RL (EFD-1 of Royal Lake WWTF), EFD-SJ (EFD-1 of the San Jose WWTF), EFD-SW (EFF-1 of Southwest WWT), EFD-WM (EFD-1 of Woodmere WWTF), EFD-1PP (EFF-1 of St. Johns River Power Park)

Annual Mass Load

The annual mass load is computed using a rolling ~~over~~ twelve (12) – month period. The calculation shall be the sum of the twelve most recent monthly mass loading of total nitrogen starting from the second month following permit issuance month.

(2) The following table provides the basis for Part I. B. provisions

a. Summation of Mass Loading – Total Maximum Daily Load (TMDL)

Parameters	Limit	Basis	Rationale
Nitrogen, Total (Lbs/yr)	1,440,278.4	Annual (12 month rollover) Mass Load	62-304.415, FAC
Nitrogen, Total (Kg/yr)	654,672		
Nitrogen, Total (Lbs/month)	Report	Monthly Mass Load	BPJ
Monitoring Frequencies and Sample Types	-	All Parameters	62-601 FAC & 62-699 FAC and/or BPJ of permit writer
Sampling Locations	-	All Parameters	62-601, 62-610.412, 62-610.463(1), 62-610.568, 62-610.613 FAC, and/or BPJ of permit writer

b. Discussion:

Total nitrogen wasteload allocation for JEA is 654,672 Kg/yr (1,440,278 Lbs/yr) which is the sum of total nitrogen allocations for the thirteen domestic wastewater treatment facilities:

Mass Loads Facilities	Nitrogen Wasteload Allocation (WLA)		Net Reduction from Starting Point
	Kg/year	Lbs/year	
Arlington WWTF	134,313	295,488.6	62.22%
Beacon Hills WWTF	7,387	16,251.4	55.02%
Buckman WWTF	253,852	558,474.4	48.41%
District II WWTF	40,294	88,646.8	76.10%
Jax Heights WWTF	12,088	26,293.6	46.43%
Julington Creek WWTF	3,552	7,814.4	55.40%
Mandarin WWTF	52,233	114,912.6	-0.91%
Monterey WWTF	26,863	59,098.6	52.52%
Royal Lakes WWTF	22,311	49,084.2	30.32%
San Jose WWTF	16,789	26,935.8	46.17%

San Pablo WWTF	5,596	12,311.2	15.67%
SW WWTF	74,618	164,159.6	48.60%
Woodmere WWTF	4,776	10,507.2	52.81%
Total WLA Aggregate	654,672	1,440,278	53.12 %

* Data: Table 24: WASTELOAD ALLOCATION FOR AGGREGATE PERMITS (Lower St. Johns River-BMAP (Approval October 10, 2008))

Discussion on the JEA requests to incorporate the St. Johns River Power Part (SJRPP) into the aggregate permit:

Portion of reclaimed water from District II WWTF (FL0026450) is reused at St. Johns River Power Part via water for the cooling towers. The reclaimed water will replace a groundwater source (the scrubber makeup water currently comes from wells). The wastewater (cooling tower blowdown) is discharged to St. Johns River. Although SJRPP does not have wasteload allocation for TN in the LSJR TMDL BMAP, JEA requests to count the TN loading from SJRPP (Outfall D-001-Main-Plant-Discharge) against the total JEA's wasteload allocation for TN.

JEA is allowed to aggregate in accordance with the lower St. Johns River Basin Management Action Plan (BMAP) total nitrogen (TN) allocation of 654,672 Kg/yr (1,440,278 Lbs/yr) between fourteen treatment facilities (thirteen domestic wastewater treatment facilities and one industrial treatment facility). The total annual TN load from the all fourteen treatment facilities shall not exceed 654,672 Kg/yr (1,440,278 Lbs/yr). If JEA meets the annual aggregate limits (rolling over 12 months), JEA and each of its treatment facilities are in compliance with this permit.

- c. With the current treatment systems, JEA does not meet the aggregate limits for total nitrogen of 654,672 Kg/yr (1,440,278 Lbs/yr). The requirements are new based on the recently adapted Lower St. Johns River TMDL. Although JEA has submitted a plan for improvements of the WWTFs to meet the aggregate limits of TN, JEA needs time to implement the plan. Therefore, an Administrative Order (AO 121 NE) is issued in conjunction with the permit. The AO includes a construction schedule and interim aggregate limits for TN which the permittee has to meet before the upgraded facilities is placed into service. The interim aggregate limits for TN are the initial starting points for TN loads in the Lower St. Johns River – Marine Water Section (Table 6 of the Lower St. Johns River – BMAP). The monitoring requirements and interim aggregate annual limits for total nitrogen shall become effective on the issuance date of the Permit and expire on September 29, 2014. Beginning on September 30, 2013, JEA shall reduce the amount of total nitrogen load to the river. The annual mass load for total nitrogen from the two wastewater treatment facilities shall be calculated to determine a twelve (12) months rolling sum. Beginning on September 30, 20014, the aggregate annual mass load of total nitrogen discharge from the thirteen JEA's treatment facilities shall not exceed 645,672 Kg/yr (1,440,278.4 Lbs/yr). The monitoring requirements and interim aggregate annual limits for total nitrogen shall expire on September 30, 2014. Beginning on October 1, 2013, the aggregate annual mass loads of total nitrogen (as N) discharge from the two City of Atlantic Beach's treatment facility shall not exceed 21,188 Kg/Yr (46,614 Lbs/Yr).
- d. JEA also plans to implement improvements that will go beyond the reductions needed to meet the aggregate TMDL-based limit herein, and to trade some or all of such additional

reductions to third parties as Water Quality Credits, pursuant to Section 5.4 of the Basin Management Action Plan (“BMAP”) adopted for the Lower St. Johns River on October 10, 2008 or subsequently adopted Department rules.

5. RESIDUALS MANAGEMENT

Basis of residuals management requirements are specified in the individual fact sheet: Arlington East WRF(FL0026441), Beacon Hills WWTF (FL0026778), Buckman WWTF (FL0026000), District II WWTF (FL0026450), Jacksonville Heights WWTF (FL0023671), Julington Creek WWTF (FL0043591), Mandarin WRF (FL0023493), Monterey WWTF (FL0023604), Royal Lakes WWTF (FL0026751), San Jose WWTF (FL0023663), San Pablo WWTF(FL0024767), Southwest District WWTF (FL0026468), and Woodmere WWTF (FL0026786).

6. GROUND WATER MONITORING REQUIREMENTS

Basis of GW requirements are specified in the individual fact sheet: Arlington East WRF(FL0026441), Beacon Hills WWTF (FL0026778), Buckman WWTF (FL0026000), District II WWTF (FL0026450), Jacksonville Heights WWTF (FL0023671), Julington Creek WWTF (FL0043591), Mandarin WRF (FL0023493), Monterey WWTF (FL0023604), Royal Lakes WWTF (FL0026751), San Jose WWTF (FL0023663), San Pablo WWTF(FL0024767), Southwest District WWTF (FL0026468), and Woodmere WWTF (FL0026786).

7. SCHEDULES FOR IMPROVEMENT ACTIONS, CONSTRUCTION, AND ENGINEERING STUDIES

This permit is issued in conjunction with Administrative Order (AO) No. 121 NE. The AO contains the requirements and schedule for compliance with total maximum daily load of total nitrogen.

8. INDUSTRIAL PRETREATMENT REQUIREMENTS

Basis of Industrial pretreatment program requirements are specified in the individual fact sheet: Arlington East WRF(FL0026441), Beacon Hills WWTF (FL0026778), Buckman WWTF (FL0026000), District II WWTF (FL0026450), Jacksonville Heights WWTF (FL0023671), Julington Creek WWTF (FL0043591), Mandarin WRF (FL0023493), Monterey WWTF (FL0023604), Royal Lakes WWTF (FL0026751), San Jose WWTF (FL0023663), San Pablo WWTF(FL0024767), Southwest District WWTF (FL0026468), and Woodmere WWTF (FL0026786).

9. ADMINISTRATIVE ORDERS (AO) AND CONSENT ORDERS (CO)

This permit is issued in conjunction with Administrative Order (AO) No. 121 NE. There are no other unresolved compliance issues for this facility.

10. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

11. DISCUSSION OF PREVIOUS PERMIT EFFLUENT OR RECLAIMED WATER LIMITATIONS.

This is a new permit; therefore, this section is not applicable to this permit.

12. NEW OR EXPANDED DISCHARGES TO SURFACE WATERS; ANTIDegradation REQUIREMENTS

This section is not applicable to this permit

13. EFFECTS OF SURFACE WATER DISCHARGE ON THREATENED OR ENDANGERED SPECIES

The Department does not anticipate adverse impacts on threatened or endangered species as a result of permit issuance.

14. APPLICABLE RULES

The following were used as the basis of the permit limitations/conditions:

- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|----------------|-----------------------|------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|
| a. | FAC refers to various portions of the Florida Administrative Code. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | The effective dates of FAC Rule Chapters cited in the table are as follows: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table><tr><td><u>Chapter</u></td><td><u>Effective Date</u></td></tr><tr><td>62-4</td><td>04-02-08</td></tr><tr><td>62-160</td><td>06-08-04</td></tr><tr><td>62-302</td><td>04-02-08</td></tr><tr><td>62-303</td><td>09-04-07</td></tr><tr><td>62-304</td><td>11-16-08</td></tr><tr><td>62-520</td><td>12-09-96</td></tr><tr><td>62-522</td><td>08-27-01</td></tr><tr><td>62-550</td><td>09-18-07</td></tr><tr><td>62-600</td><td>04-13-06</td></tr><tr><td>62-601</td><td>12-24-96</td></tr><tr><td>62-602</td><td>10-15-07</td></tr><tr><td>62-610</td><td>11-19-07</td></tr><tr><td>62-620</td><td>04-02-08</td></tr><tr><td>62-625</td><td>01-08-97</td></tr><tr><td>62-640</td><td>03-30-98</td></tr><tr><td>62-650</td><td>12-26-96</td></tr><tr><td>62-699</td><td>10-15-07</td></tr></table> | <u>Chapter</u> | <u>Effective Date</u> | 62-4 | 04-02-08 | 62-160 | 06-08-04 | 62-302 | 04-02-08 | 62-303 | 09-04-07 | 62-304 | 11-16-08 | 62-520 | 12-09-96 | 62-522 | 08-27-01 | 62-550 | 09-18-07 | 62-600 | 04-13-06 | 62-601 | 12-24-96 | 62-602 | 10-15-07 | 62-610 | 11-19-07 | 62-620 | 04-02-08 | 62-625 | 01-08-97 | 62-640 | 03-30-98 | 62-650 | 12-26-96 | 62-699 | 10-15-07 |
| <u>Chapter</u> | <u>Effective Date</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-4 | 04-02-08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-160 | 06-08-04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-302 | 04-02-08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-303 | 09-04-07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-304 | 11-16-08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-520 | 12-09-96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-522 | 08-27-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-550 | 09-18-07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-600 | 04-13-06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-601 | 12-24-96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-602 | 10-15-07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-610 | 11-19-07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-620 | 04-02-08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-625 | 01-08-97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-640 | 03-30-98 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-650 | 12-26-96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62-699 | 10-15-07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b. | FS refers to various portions of the Florida Statutes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c. | CFR refers to various portions of the Code of Federal Regulations, Title 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d. | BPJ refers to Best Professional Judgment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

15. DEPARTMENT CONTACT

Additional information concerning the permit may be obtained during normal business hours from:

D.A. Vo, P.E.
Department's Northeast District Office
7825 Baymeadows Way, Suite B200,
Jacksonville, FL, FL 32256 - 7590
Telephone Number: 904-807-3300
Fax Number: 904-448-4366

16. THE ADMINISTRATIVE RECORD

The administrative record including application, draft permit, fact sheet, public notice (after release), comments received and additional information is available for public inspection during normal business hours at the location specified in item 15.

17. PROPOSED SCHEDULE FOR PERMIT ISSUANCE

Draft permit to Applicant and EPA :	December 15, 2008
Beginning of Proposed Public Comment Period:	January 15, 2009
Submit Proof of Publication	January 28, 2009
End of Proposed Public Comment Period :	February 15, 2009
Intent to Issue Permit:	February 23, 2009
Submit Proof of Publication:	March 3, 2009
Proposed permit to EPA :	March 9, 2009
Notice of Agency Action :	March 9, 2009
Proposed Issuance Date of Permit :	March 10, 2008

18. Public Comment Period

The Department of Environmental Protection proposes to issue a wastewater facility permit to this applicant subject to the aforementioned reclaimed water or effluent limitations and conditions. This decision is tentative and open to comment from the public.

Interested persons are invited to submit written comments regarding permit issuance on the draft permit limitations and conditions to the following address:

Department of Environmental Protection, Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, FL 32256 - 7590
Attn: D. Anh Vo

All comments received within 30 days following the date of public notice, pursuant to Rule 62-620.550, F.A.C., will be considered in the formulation of the final decision with regard to permit issuance.

Any interested person may submit written comments on the Department's proposed permitting decision or may submit a written request for a public meeting to the address specified above, in accordance with Rule 62-620.555, F.A.C. The comments or request for a public meeting must contain the information set forth below and must be received in the above named District office of the Department within 30 days of receipt or publication of the public notice. Failure to submit comments or request a public meeting within this time period will constitute a waiver of any right such person may have to submit comments or request a public meeting under Rule 62-620.555, F.A.C.

The comments or request for a public meeting shall contain the following information:

- 1) The commenter's name, address and telephone number, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- 2) A statement of how and when notice of the draft permit was received;
- 3) A description of any changes the commenter proposes for the draft permit;
- 4) A full explanation of the factual and legal reasons for each proposed change to the draft permit; and

A request that a public meeting be scheduled (if applicable) including a statement of the nature of the issues proposed to be raised at the meeting.

a. Public Meeting

The Department will hold a public meeting if there is a significant degree of public interest in the draft permit or if it determines that useful information and data may be obtained thereby. Public notice of such a meeting shall be published by the applicant at least 30 days prior to the meeting.

If a public meeting is scheduled the public comment period is extended until the close of the public meeting. If a public meeting is held any person may submit oral or written statements and data at the meeting on the Department's proposed action.

b. Issuance of the Permit

The Department will make its decision regarding permit issuance after consideration of all written comments, including comments from the United States Environmental Protection Agency on surface water discharge aspects of the draft or a proposed permit; the requirements of Chapter 403, F.S. and appropriate rules; and, if a public meeting is held, after consideration of all comments, statements and data presented at the public meeting. The Department will respond to all significant comments in writing. The Department's response to significant comments will be included in the administrative record of the permit and will be available for public inspection at the above named District office of the Department.

Unless a request for an administrative hearing, or an extension of time to file a petition for an administrative hearing, as indicated in d. below, is granted, the Department will take final agency action by issuing the permit or denying the permit application. If an administrative hearing is convened, final agency action will be based on the outcome of the hearing.

c. Administrative Hearing

A person whose substantial interests are affected by the Department's proposed permitting decision has the opportunity to petition for an administrative proceeding (hearing) to challenge the Department's decision in accordance with Section 120.57, F.S.

An administrative hearing is an evidentiary proceeding in which evidence is presented by testimony and exhibits before an independent hearing officer. The result of an administrative hearing is the issuance of the hearing officer's recommended order to the Department, including the hearing officer's findings of fact, based on the evidence presented at the hearing. The Department will issue a final order, granting or denying the permit, based on the hearing officer's recommended order.

The petition for an administrative hearing must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of notice of agency action or within 14 days of personal receipt of notice of agency action, whichever occurs first. The

petitioner is to mail a copy of the petition to the applicant at the time of filing. Failure to file a petition within this time period will constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57, F.S. The petition is to contain the following information:

- 1) The name, address and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- 2) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- 3) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- 4) A statement of the material facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- 5) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- 6) A statement of the relief sought by the petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in the notice of agency action. Persons whose substantial interests will be affected by any decision of the Department on the application have the right to petition to become a party to the proceeding, regardless of their agreement or disagreement with the Department's proposed action indicated in the notice of agency action.