### **APPENDIX**

PLATE I - BORING LOCATION PLAN

STANDARD PENETRATION TEST BORING LOGS

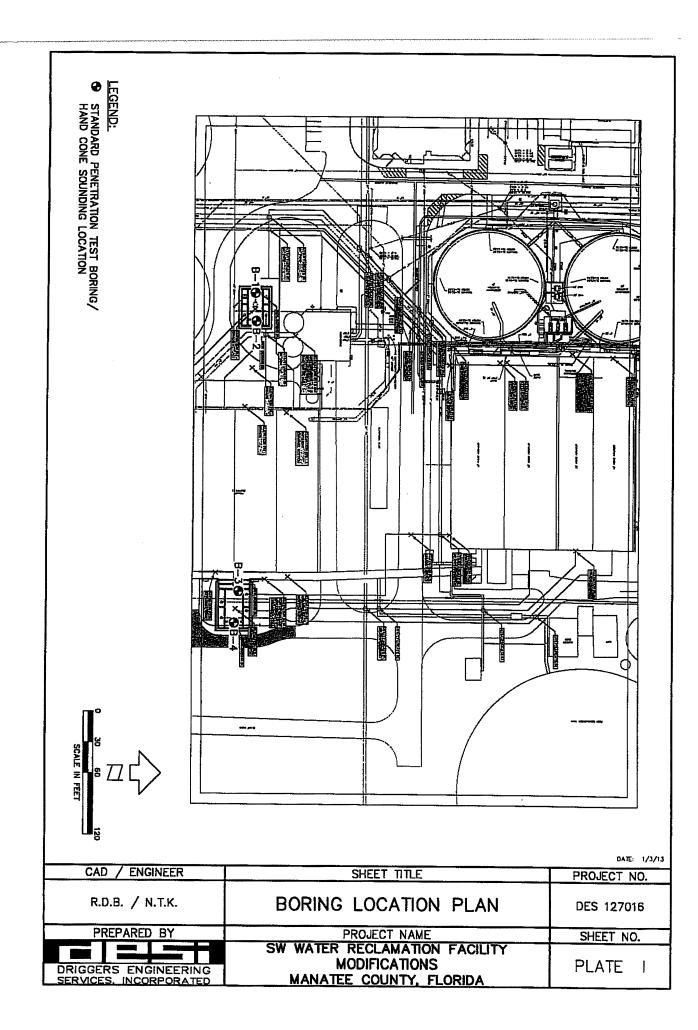
HAND AUGER/HAND CONE BORING LOGS

SUMMARY OF LABORATORY TEST RESULTS

**GRAINSIZE ANALYSES** 

**METHOD OF TESTING** 

PLATE I - BORING LOCATION PLAN



STANDARD PENETRATION TEST BORING LOGS



			DES 127016  BORING NO. B-1  Water Reclamation Facility Modifications, Manatee Cour	ntv Florida	
			e Plate I	Forema	n J.R.
Comp		1	Depth To	Time	Date 12/13/12
<b>DEPTH, FT</b>	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL: +17.2+/-'	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP (AUTOMATIC HAMMER) 10 20 40 60 80
0	4515	T	Dark brown Fine SAND with roots (SP)		
	g G		Brown Fine SAND with trace of gravel (SP)  Light brown Fine SAND with trace of dark gray	-	
- 5 -	7/// 7 7 7 7 8 9 9		Fine SAND (SP) Light gray Fine SAND (SP) Brown Fine SAND (SP)	_	
	D 0.0 D D D D D D D D D		Brown clayey Fine SAND (SC) Brown Fine SAND with shell (SP) Dense light brown to light gray Fine SAND	9/11/19	
- 10 -	2 4 4 2 4 4 2 4 4 4 3 4 4 4		with shell (SP) - medium dense seam at depth 8.0'	12/21/24	
	2 2 5 5 2 2 5 5 2 5 5 2 5 5			14/18/22	
- 15 -	7. V. V. V. V. V. V. V. V. V. V. V			12/18/19	
- 20 -	7 7 P		Very loose gray silty Fine SAND with trace of shell (SM)		
	4			3/1/0	
- 25 -			Loose to very loose gray silty Fine SAND with shell (SM)		
				2/3/2	
- 30 -			,	1/1/0	
	<u>lojefetojojo</u>				
Ren	narks			Cas	ing Length

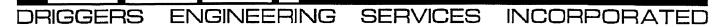


**BORING NO. B-2** Project No. DES 127016 Project SW Water Reclamation Facility Modifications, Manatee County, Florida Location See Plate I J.R. Foreman Depth To Water Completion Depth 31.5' Date 12/13/12 4.1' Time Date 12/13/12 BLOWS ON SAMPLER PER 6" OR PEN. STR. **STANDARD JEPTH, FT** SYMBOL **PENETRATION TEST** SOIL DESCRIPTION BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP (AUTOMATIC HAMMER) SURF. EL: +17.3+/-' 40 60 80 Brown Fine SAND (SP) ₩... Brown Fine SAND with trace of shell (SP) Light gray and dark gray Fine SAND with shell (SP) Light gray Fine SAND with shell (SP) 5 Brown slightly silty Fine SAND with shell (SP-SM) 1/1/1 Very loose light brown to light gray Fine SAND with shell (SP) 2/2/1 10 1/0/1 1/1/1 Medium dense light gray Fine SAND with shell 15 (SP) 2/4/11 7 **.☆. ∀**. 12 . ☆. ₽. Very loose gray silty Fine SAND with shell (SM) 20 3/1/1 25 2/1/1 Ø Ø. t Very loose light gray Fine SAND with shell (SP) ♥.♥.♥ ♥.♥.♥ 30 .∇.∇.1 7.7.7 2/1/1 Remarks **Casing Length** 



### DRIGGERS ENGINEERING SERVICES INCORPORATED

			ES 127016 BORING NO. B-3 Vater Reclamation Facility Modifications, Manatee Co								
			Plate I	Forema	n	J.	R.				
Comp	_		Depth To								
De	pth _	• :	11.5' Date <u>12/13/12</u> Water 3.9'	_ Time		_ Date	1;	2/1:	3/1	<u>2</u>	_
ОЕРТН, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL: +17.3+/-'	BLOWS ON SAMPLER PER 6" OR PEN. STR.	BL S HA	STANI ENETRAT OWS/FT. SAMPLER MMER, ITOMATIO	TON 7 ON 2 R-140 30" D C HAM	TES " O. LB. DRO	.D. P ER)	)	10
0			Brown Fine SAND (SP)					T	П	Τ	Π
. 5			Light brown Fine SAND with shell and gravel (SP) Dark brown Fine SAND (SP) Dark gray Fine SAND (SP) Brown Fine SAND with trace of tree bark (SP) Brown silty Fine SAND with shell (SM) Medium dense to dense light brown								
	2. 4. 4. 2. 4. 4. 2. 4. 4.		to light gray Fine SAND with shell (SP)	6/11/16			1	+		+	H
	Ø:♥:₹ d.₩.₩.			6/12/21			+	+	H	+	${\sf H}$
- 10 -	ά & ὰ ὰ Δ. ἐ ὰ Φ ὰ			12/22/23				1	H	+	
	2 4 2 2 4 4 2 4 4			16/22/26				1		+	H
- 15 -	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		Dense light gray Fine SAND with some shell (SP)	16/20/14			4	<del> </del>			
- 20 -			Very loose to loose gray slightly silty Fine SAND with shell (SP-SM)	1/0/1							
- 25 -	444 444 444 444 444 444 444 444 444 44			2/2/3							
- 30	14.14.14.14.14.14.14.14.14.14.14.14.14.1		,	2/3/5							
	1						$\dashv$	+	H	+	╫
Rei	marks	<u></u>		Cas	sing Len	gth	1	0.0	<u>Н</u> —	<u>+</u> -	± - -



_		_	ES 127			BORING N									
			vater Re Plate I	eciamati	on Facility Mod	uitications, M	anatee Coul	nty, Florida Forema	n		J.R.				_
Comp		1				Depth To	· · · · · · · · · · · · · · · · · · ·	1 0161110			J.IX.				_
De	pth _	3	31.5'	Date _	12/13/12	Depth To Water	3.8'	Time		_ Date	·	12/	13/	12	
<b>DEPTH, FT</b>	SYMBOL	SAMPLES		EL: +17	SOIL DESC	RIPTION		BLOWS ON SAMPLER PER 6" OR PEN. STR.	Bi H. (Al	STAI PENETRA LOWS/FT SAMPLE AMMER, UTOMAT 0 2	ATIOI F. ON ER-14 30' IC H.	N TE   2"  O L   DR   AMI	O.E B. OP VE	).	80
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	<i>0</i> −80		Dark br	own Fin	ND with shell e SAND with g e SAND (SP) D with trace of	ravel (SP)									
- 5 -	///	+	Brown	Fine SAI	ND (SP)							+	+	$\dagger \dagger$	+
	2 9 5		Brown	Fine SAI	ine SAND (SOND with shell to dense light	(SP)		7/11/13			•				
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- 15 -	7 7 V 7 7 V 7 7 V	7						14/19/22					4		
- 20 -				ose to lo ell (SM)	ose gray silty l	Fine SAND		1/WH/1							
- 25 -								2/1/3							
- 30 -				*****				2/2/3							
													-	$\dashv \downarrow$	#
Rer	narks	W	H = Wei	ght of H	ammer			Cas	ing Le	ngth				<del>     </del>	<del>  </del>  -

HAND AUGER/HAND CONE BORING LOGS



	HAND AUGER BORING			NDING LO	3		
PROJEC	SW Water Reclamation Facility Modifications	CLIENT		СН	12M Hill		
	Manatee County, Florida Project No.: DES 127016	WATER	TABLE:	4.2'		DATE: 12/13/	мэ
TECHNIC	CIAN:	DATE:	40/43/		COMPL	ETION DEPTH:	14
LOCATIO	J.R./M.F.	TEST N	12/13/  UMBER:			6.0'	
	See Plate 1	-	<del>T</del>		B-1 HAND CO	ONE TIP	
ELEV.	DESCRIPTION	DEPTH	SYMBOL			NCE (TSF)	
(FT)	DEGGG 1.5.	(FT)	SYM	10 20	~ 30	40 EN	77 76
	Dark brown Fine SAND with roots (SP)	0	(37):3	10 20	0 30	40 50	<u>60 70</u>
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	Brown Fine SAND with trace of gravel		0			**	
	(SP)	1	Time I	<del></del>		+	
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- 15 -	1		G.				
						<sub>+</sub>	
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	Light brown Fine SAND						
	with trace of dark gray Fine SAND (SP)	- 3	<b> </b>			+	-
- 14 -			†	1			
			1:::::			• •	
	Light gray Fine SAND (SP)		<b>†</b> †		1	'	
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	Brown Fine SAND (SP)	<del>-</del>				++-	+
13	•	_	777				
	Brown clayey Fine SAND (SC)						
			<b>*///</b>				
	1		1///				
	Brown Fine SAND with shell (SP)	<b>–</b> 5 ·			_	-+-	
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	1		v. v. 1				
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	1		<b>∀</b> ∀				
		- 6	10.0.4			-+-+	
- 11 -	Surface Elevation: +17.2+/-						
	LEGEND:		-				
<del></del>	•+ Denotes Penetration Resistance		-				
	in excess of 50 TSF		-				
<del></del>		- 7 -	1		-		-
	4				1	1 1	- 1



	HAND AUGER BORING/F	IAND CO	NE SO	UNDIN	iG LO	G				
PROJEC	T: SW Water Reclamation Facility Modifications	CLIENT:			CI	12M Hill				
	Manatee County, Florida Project No.: DES 127016	WATER	TABLE:	4.1'		12.147 5 4111		DATE:	12/13/12	
TECHNIC	CIAN:  J.R./M.F.	DATE:	12/1	3/12		CO	VPLETI	ON DEP 6.0'	TH:	
LOCATIO	ON: See Plate !	TEST NU	JMBER:			B-2	***************************************			
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	Brown Fine SAND with trace of shell	<del> </del> 1 -	77						+	
- 16 -	(SP)	<b>-</b>								
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	Light gray and dark gray Fine SAND		▽ ▽.						+	
	with shell (SP)		7 7 7 7 7 7							
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- 14 -			5 A A							
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	Light gray Fine SAND with shell (SP)		~~~							
	Light gray i life of the with shell (of )	- 4 -	▼ ♥ ♥							
- 13 -	Daniel California California		7.7.							
10	Brown slightly silty Fine SAND with shell (SP-SM)		יוס וס		\	•				
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	Light brown Fine SAND with shell (SP)	- 5 -	▽.▽·							
		3	7. ♥. ♥ ₩. ♥. ♥							
- 12 -			<b>∀</b> .♥.∀							
			\(\nu:\nu\)							
			♥ ♥ <b>♥</b>							
		6								
- 11 -	Surface Elevation: +17.3+/-'									
	LEGEND.									
	•+ Denotes Penetration Resistance in excess of 50 TSF		]							
	111 640633 01 30 135	7 -				-				



	HAND AUGER BORING/H	AND CO	NE SO	UNDIN	G LO	G				
PROJEC	F: SW Water Reclamation Facility Modifications	CLIENT:			CH	I2M Hill			•	
	Manatee County, Florida Project No.: DES 127016	WATER	TABLE:	3.9'				DATE:	2/13/12	
TECHNIC	IAN: J.R./M.F.	DATE:	12/1	3/12		CON	IPLETIC	ON DEP 6.0'	TH:	
LOCATIO	N: See Plate	TEST NU	IMBER:			B-3				
ELEV.	DESCRIPTION	DEPTH	SYMBOL			HAN	CONE TANCE			
(FT)	BESSAII TION	(FT)	SYN	0 1	0 2	0 3(	0 4	0 5	0 6	0 70
- 17 -	Brown Fine SAND (SP)	0								
	Light brown Fine SAND		7. V. V							
	with shell and gravel (SP)	1	100g				~			
- 16 -	Dark brown Fine SAND (SP)		- V Y							>
		- 2							4	
- 15 -	Dark gray Fine SAND (SP)								<b>)</b> +	
	Dark gray Fille OAND (OF)	3							<b>-</b>	
- 14 -	Brown Fine SAND with trace of tree bark (SP)		<b>W</b>							
			<b>5</b>							
- 13 -	Brown silty Fine SAND with shell (SM)	4	\$ D							
					•					
- 12 -		5								
			V V						+	
		6							+	
- 11 -	Surface Elevation: +17.3+/-' LEGEND:		1							
	<ul> <li>+ Denotes Penetration Resistance in excess of 50 TSF</li> </ul>									
	execes of 50 (a)	- 7	-	<b></b>						



	HAND AUGER BORING/I			UNDIN	IG LOC	<del>}</del>				
PROJECT	T: SW Water Reclamation Facility Modifications	CLIENT:			CH	2M Hill				
	Manatee County, Florida Project No.: DES 127016	WATER	TABLE:	3.8				DATE:	12/13/12	,
TECHNIC		DATE:	42/4	13/12		COM	PLETI	ON DE	PTH:	
LOCATIO	N:	TEST NI						6.0'		
	See Plate I	_	<u> </u>	Γ		B-4 HANI	CON	E TIP		
ELEV.	DESCRIPTION	DEPTH	SYMBOL			RESIS	TANCE	(TSF)		
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	with surficial roots (SP)		]:`::`	:						
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	Brown Fine SAND with shell (SP)		V. Q. Q.					<b>'</b>	†	
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15	Dark brown Fine SAND with gravel (SP)								+	····
	5.1. 5.1. (c. )			]						
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4.4	Dark brown Fine SAND (SP)	- 3		1						
- 14 -										
***************************************	Gray Fine SAND with trace of roots			1		l				
	(SP)					İ		•	+	
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	Brown clayey Fine SAND (SC)			]				]	+	
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- 11 -		6								
	Surface Elevation: +17.0+/-'									
	<ul> <li>Denotes Penetration Resistance in excess of 50 TSF</li> </ul>		-			l				
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ı <sup>.</sup> -		1 '	I	1	1	- 1		l		

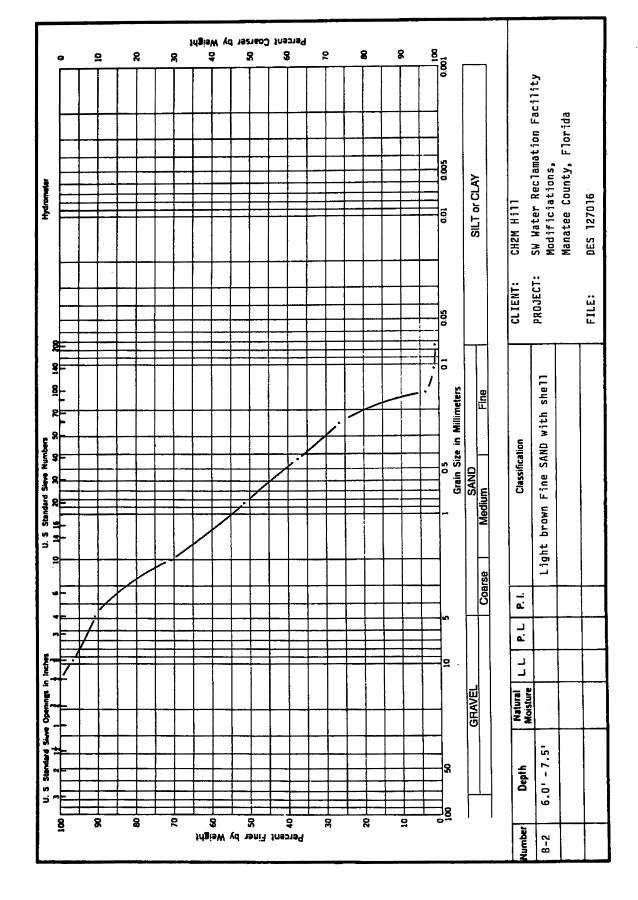
SUMMARY OF LABORATORY TEST RESULTS

## SUMMARY OF LABORATORY TEST RESULTS

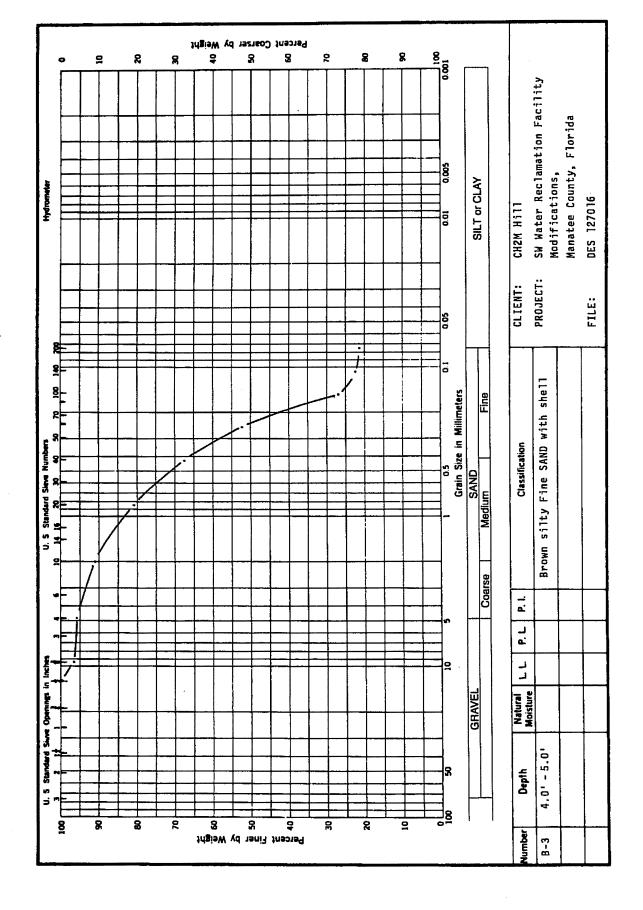
BORING	рертн	DESCRIPTION	% M	, Y	<b>'</b> 5	ATTE	ATTERBERG LIMITS	- d:	ÜC	CON	G.S.	ORG.	Hď	ប់	so 4	RES.	
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B-2	6.0-7.5	Light brown Fine SAND with shell									•						
B-3	4.0-5.0	Brown sily Fine SAND with shell									•						
B-3	20.0-21.5	Gray slightly silty Fine SAND with shell									•						
B-4	4,5-5.3	Brown clayey Fine SAND	9''21			26 1	16				15.4						
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				ŭ	Total Sulfate				PR	PROJECT:		W Water	Reclamat	ion Facili	SW Water Reclamation Facility Modifications,	ations,	
St = 3.0		Shrinkage Limit RES. (ohm-cm)		<u>.</u> .	Lab Resistivity	/ity				en e.	Σ 4	Manatee County, Florida	ounty, Flo	orida			
r.r. (ISI) = U.C. =		racket renetrometer Unconfined Compression **	<b>4</b> 11	2 4	see 1est Curves Percent Passing No. 200 Sieve	rves sing No. 2	.00 Sieve	41	3	;; a	ב	DES 127016	9				

**GRAINSIZE ANALYSES** 

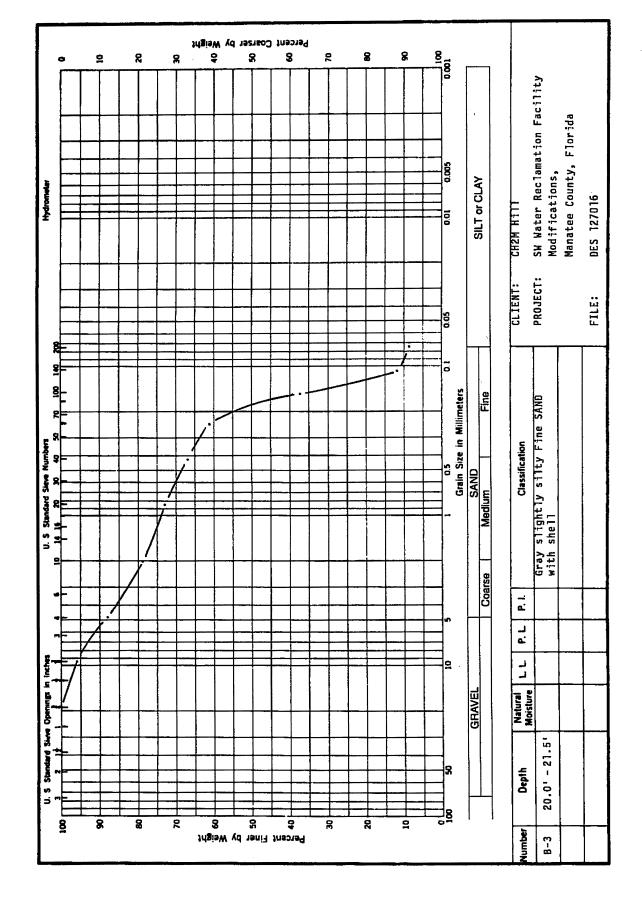
DRIGGERS ENGINEERING SERVICES, INC.



DRIGGERS ENGINEERING SERVICES, INC.



DRIGGERS ENGINEERING SERVICES, INC.



METHOD OF TESTING

### STANDARD PENETRATION TEST AND SOIL CLASSIFICATION

### STANDARD PENETRATION TEST (ASTM D-1586)

In the Standard Penetration Test borings, a rotary drilling rig is used to advance the borehole to the desired test depth. A viscous drilling fluid is circulated through the drill rods and bit to stabilize the borehole and to assist in removal of soil and rock cuttings up and out of the borehole.

Upon reaching the desired test depth, the 2 inch O.D. split-barrel sampler or "split-spoon", as it is sometimes called, is attached to an N-size drill rod and lowered to the bottom of the borehole. A 140 pound hammer, attached to the drill string at the ground surface, is then used to drive the sampler into the formation. The hammer is successively raised and dropped for a distance of 30 inches using a rope and "cathead" assembly. The number of blows is recorded for each 6 inch interval of penetration or until virtual refusal is achieved. In the above manner, the samples are ideally advanced a total of 18 inches. The sum of the blows required to effect the final 12 inches of penetration is called the blowcount, penetration resistance or "N" value of the particular material at the sample depth.

After penetration, the rods and sampler are retracted to the ground surface where the core sample is removed, sealed in a glass jar and transported to the laboratory for verification of field classification and storage.

### SOIL SYMBOLS AND CLASSIFICATION

Soil and rock samples secured in the field sampling operation were visually classified as to texture, color and consistency. The Unified Soil Classification was assigned to each soil stratum per ASTM D-2487. Soil classifications are presented descriptively and symbolically for ease of interpretation. The stratum identification lines represent the approximate boundary between soil types. In many cases, this transition may be gradual.

Consistency of the soil as to relative density or undrained shear strength, unless otherwise noted, is based upon Standard Penetration resistance values of "N" values and industry-accepted standards. "N" values, or blowcounts, are presented in both tabular and graphical form on each respective boring log at each sample interval. The graphical plot of blowcount versus depth is for illustration purposes only and does not warrant continuity in soil consistency or linear variation between sample intervals.

The borings represent subsurface conditions at respective boring locations and sample intervals only. Variations in subsurface conditions may occur between boring locations. Groundwater depths shown represent water depths at the dates and time shown only. The absence of water table information does not necessarily imply that groundwater was not encountered.





### FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest District Office 13051 North Telecom Parkway Temple Terrace, Florida 33637-0926 RICK SCOTT
GOVERNOR
HERSCHEL T. VINYARD JR.
SECRETARY

December 23, 2013

### **ELECTRONIC DELIVERY**

In the Matter of an Application for Permit by:

Manatee County Utilities
Mr. Mike Gore, Utilities Director
4410 – 66<sup>th</sup> Street West
Bradenton, FL 34210-2606
mike.gore@mymanatee.org

PA File No. FLA012619-019-DW1P/RO Manatee County Southwest WRF Manatee County Permit No. FLA012619

### INTENT TO ISSUE

The Department of Environmental Protection gives notice of its intent to issue a permit (copy of conditions attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, Manatee County Southwest Water Reclamation Facility (WRF), applied on July 11, 2013 to the Department of Environmental Protection for a permit revision to convert the existing activated sludge treatment process to a Modified Ludzack-Ettinger (MLE) process.

The Department has permitting jurisdiction under 62-4, 62-600, 62-601, 62-602, 62-604, 62-610, 62-620, 62-699 and 62-640, Florida Administrative Code. The project is not exempt from permitting procedures. The Department has determined that a wastewater permit is required for the proposed work.

- 1. The permittee has provided reasonable assurances pursuant to Florida Administrative Code Rule 62-4.070 that the expansion of these facilities will not cause pollution in contravention of Department rules.
- 2. The permittee has provided reasonable assurances pursuant to Florida Administrative Code Rule 62-600.440(4) and (5) that Secondary Treatment with High Level or Basic Disinfection will be provided.
- 3. There is reasonable assurance pursuant to Section 62-610, Part III, Florida Administrative Code, that land application of treated effluent to the slow-rate public access reuse system R-001 will result in minimum negative impact to ground water and that land application requirements will be met.
- 4. The permittee has provided reasonable assurances pursuant to Florida Administrative Code Rule 62-522.600 that the discharge to ground water will not cause a violation of ground water standards and that adequate monitoring will be provided to ensure that ground water standards will be met.

FDEP- Intent to 1'ssue Permit Manatee County Utilities
Manatee County Southwest WRF
PA File No. FLA012619-019-DW1P/RO

5. The permittee has provided reasonable assurances pursuant to Florida Administrative Code Chapter 62-640 that the treatment and disposal of domestic wastewater residuals will not cause pollution to the environment.

Under Section 403.815, Florida Statutes, and Rule 62-110.106, Florida Administrative Code, you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice must be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, Florida Statutes, in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used should be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant must provide proof of publication to the Department, at Southwest District, 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926 within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit under Rule 62-110.106(11), Florida Administrative Code.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, Florida Statutes, within fourteen days of receipt of notice. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Under Rule 62-110.106(4), Florida Administrative Code, a person may request enlargement of the time for filing a petition for an administrative hearing. The request must be filed (received by the clerk) in the Office of General Counsel before the end of the time period for filing a petition for an administrative hearing.

Petitions by the applicant or any of the persons listed below must be filed within fourteen days of receipt of this written notice. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), Florida Statutes, must be filed within fourteen days of publication of the notice or within fourteen days of receipt of the written notice, whichever occurs first. Under Section 120.60(3), Florida Statutes, however, any person who has asked the Department for notice of agency action may file a petition within fourteen days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition or request for enlargement of time within fourteen days of receipt of notice shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, Florida Administrative Code.

Manatee County Utilities
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PA File No. FLA012619-019-DW1P/RO

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the Department permit identification number and the county in which the subject matter or activity is located;
  - (b) A statement of how and when each petitioner received notice of the Department action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A statement of facts that the petitioner contends warrants reversal or modification of the Department action;
- (f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573 of the Florida Statutes is not available for this proceeding.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mauryn McDonald, P.E.

Water Facilities Program Administrator

Southwest District

Manatee County Utilities Manatee County Southwest WRF PA File No. FLA012619-019-DW1P/RO

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed before the close of business on 12/23/2013 to the listed persons.

### FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Rhanda luylir 12/23/2013 Clerk Date

### Copies Furnished To:

Dean Milton, P.E., Carollo Engineers, Inc., <u>DMilton@carollo.com</u>
Chuck Froman, Wastewater Facilities Superintendent-Manatee County, <u>chuck.froman@mymanatee.org</u>
Edward Watson, FDEP SWD, <u>edward.watson@dep.state.fl.us</u>
Harry Messick, Manatee County Dept. of Health, <u>harry\_messick@doh.state.fl.us</u>
Sia Mollanazar, P.E., Manatee County Public Works Dept., <u>sia.mollanazar@mymanatee.org</u>
Andy Fischer, Manatee County Public Works Dept., <u>andy.fischer@mymanatee.org</u>
Jeff Goodwin, Manatee County Utilities, <u>jeff.goodwin@mymanatee.org</u>



### FLORIDA DEPARTMENT OF

### Environmental Protection

Southwest District Office 13051 North Telecom Parkway Temple Terrace, Florida 33637-0926 RICK SCOTT GOVERNOR HERSCHEL T. VINYARD JR. SECRETARY

### STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:

Manatee County Utilities

RESPONSIBLE AUTHORITY:

Mike Gore, Utilities Director 4410 - 66th Street West Bradenton, Florida 34210-2606 mike.gore@mymanatee.org (941) 792-8811 PERMIT NUMBER:

PA FILE NUMBER: ISSUANCE DATE:

PA FILE NUMBER: REVISED DATE: EXPIRATION DATE: FLA012619

FLA012619-017-DW1P/NR

March 22, 2010 FLA012619-019-DW1P/RO

DRAFT March 21, 2015

### **FACILITY:**

Manatee County Southwest Water Reclamation Facility (WRF) 5101 - 65th Street West Bradenton, Florida 34210 Manatee County

Latitude: 27° 26' 06" N Longitude: 82° 37' 30" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

### TREATMENT FACILITIES:

Operation of an existing 15.0 million gallons a day (MGD) Annual Average Daily Flow (AADF) Type I activated sludge, advanced secondary treatment domestic wastewater plant. The plant consists of: a headworks with two mechanical bar screens, one manual bar screen, and two vortex de-gritting systems; four primary clarifiers with a total volume of 2.15 million gallons (MG), one flow equalization basin of 3.8 MG; four aeration basins with a total volume of 3.5 MG; four secondary clarifiers with a total volume of 4.13 MG and a total surface area of 41,900 square feet; seven automatic backwash filters (six filters with sand media and one filter with cloth media) with a total surface area of 9,720 square feet; and three chlorine contact chambers with a total volume of 0.46 MG.

The piping from the clarifiers splits into two treatment streams. One treatment stream conveys water to the filters and then to two chlorine contact basins to meet public access reuse (PAR) requirements. The second treatment stream conveys water from the clarifiers directly to the third chlorine contact basin to meet secondary treatment with basic disinfection requirements. The chlorine contact chamber gates can be controlled to adjust the number of chlorine contact basins that will receive water from the filters or directly from the clarifiers.

The solid waste stream consists of: two gravity thickeners with a total capacity of 62,800 pounds per day, two dissolved air flotation thickeners with a total capacity of 40,000 pounds per day, three primary anaerobic digesters with a total capacity of 2.7 MG, one secondary anaerobic digester of 0.9 MG, and six 2-meter belt filter presses with a total capacity of 7,200 pounds per hour. Also included is a two tank septage receiving station with a total volume of 76,000 gallons. Coagulant feed is available on a standby status.

FDEP-Wiskwaker Fac. Print

FACILITY:

Manatee County Southwest WRF

PERMITTEE: Manatee County Utilities

### MODIFICATION:

The project will convert the existing activated sludge treatment process to a Modified Ludzack-Ettinger (MLE) process, which consist of the following: rerouting of yard piping to/from flow equalization basin; new flow splitter box #1 for distribution of raw influent, nitrified mixed liquor recycle, and return activated sludge; converting four existing primary clarifiers to four anoxic basins; new flow splitter box #2 for distribution of effluent from the anoxic basins to aeration basins; modifications to the existing aeration basins such as installing two new blower, additional aeration piping and diffusers; installation of four nitrification recycle pumps to the existing aeration basins; three primary anaerobic digesters and one secondary anaerobic digester will be converted to aerobic holding tanks with jet aeration systems; and rerouting of dissolved air floatation (DAF) thickener decant piping to headworks.

### After Modification:

Operation of an existing 15.0 million gallons a day (MGD) Annual Average Daily Flow (AADF) Type I activated sludge wastewater treatment plant using the Modified Ludzack-Ettinger (MLE) process consisting of: two mechanical bar screens, one manual bar screen, two vortex degritting units and two grit classifiers, one (off-line) flow equalization basin with floating cover at a total volume of 3.8 million gallons (MG), four anoxic basins with a total operating volume of 2.2 MG, four aeration basins with a total volume of 3.5 MG, five secondary clarifiers with a total volume of 5.13 MG and a total surface area of 49,820 square feet, six traveling bridge sand/anthracite media filter and one traveling bridge cloth media filter with a total surface area of 9,024 square feet, three chlorine contact chambers with a total volume of 412,672 gallons, two dissolved air flotation thickeners with a total operating volume of 272,610 gallons, four aerobic sludge holding tanks with a total volume of 3.3 MG, and six belt filter presses. Disinfection is achieved by sodium hypochlorite solution. This facility is operated to provide secondary treatment with high-level disinfection.

There are three storage ponds located at the Southwest Water Reclamation Faculty which consist of: (1) North Pond (25 acres) that is lined and has two-cells-- reject pond (cell #1) with a total volume of 18 MG and storage pond (cell #2) with a total of 66 MG, (2) Middle Pond (19.5 acres) that is unlined with a total volume of 48 MG, and (3) South Lake (45.9 acres) that is unlined with a total volume of 142 MG. Also, there are two 10 MG ground storage tank used for storage.

### REUSE:

Land Application: An existing 15.0 MGD AADF permitted capacity slow-rate public access reuse system R-001. The Manatee County Southwest Water Reclamation Facility serves as a source plant for the Manatee County Master Reuse System, Permit FLA474029. The second cell of the North Pond will provide PAR storage. The North Pond has an area of 12.5 acres and a capacity of 66 MG. Water from the North Pond will be chlorinated (by chlorine injection) and then filtered (in designated lake filters) prior to re-entry to the PAR distribution system.

### DISPOSAL:

An existing underground injection well system U-001 consisting of one Class I Underground Injection: underground injection well permitted under Department permit number 0039512-006-UO discharging to Class G-IV ground water. U-001 has a permitted capacity of 15.0 MGD maximum daily flow (MDF) and 10.0 MGD AADF. Underground injection well system U-001 is located approximately at latitude 27 ° 28' 10" N, longitude 82 ° 40' 51" W. Effluent water from the plant is pumped to U-001 via the PAR distribution system. U-001 information will be reported under the Manatee County Master Reuse System permit (FLA474029).

IN ACCORDANCE WITH: The limitations, monitoring requirements, and other conditions set forth in Pages 1 through 19 of this permit.

PERMIT NUMBER:

FLA012619

Manatee County Southwest WRF Manatee County Utilities PERMITTEE:

FACILITY:

# RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

### A. Reuse and Land Application System R-001

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to direct reclaimed water to Reuse Sustain P. 201. Such reclaimed water shall be limited and monitored by the nermittee as specified below and renorded in accordance with Condition I.B.9.

			4	Reclaimed Water Limitations	ter Limitati	ons		Monitoring Requirements	Ė.S.	
Parameter	Units	Max/Min	Ammaal	Monthly Average	Weekly Average	Single	Monitoring	Sample Type	Monitoring Location Site Number	Notes
Flow (to R-001, Public Access Reuse System)	MGD	Maximum	15.0	Report	ı		Monthly	Meter	FLW-05	See Cond. I.B.2 & 4
Flow (from R-001 to storage ponds or storage tanks)	MGD	Maximum	Report	Report	1	1	Monthly	Recording flow meter and totalizer	FLW-10	See Cond. I.B.4
BOD, Carbonaceous 5 day, 20C	MG/L	Maximum	20.0	30.0	45.0	0.09	7 Days Week	24-hour FPC	EFA-01	
Solids, Total Suspended	MG/L	Maximum	,		-	5.0	7 Days/Week	Grab	HB-01	
Нď	ns	Range	,		E	6.0 to 8.5	Continuous	Meter	EFA01	See Cond. I.B.3
Coliform, Fecal, % less than detection	PERCENT	Minimum	ı	75	1	-	Monthly	Calculation	EFA-01	See Cond. LB.5
Coliform, Fecal	#/100ML	Maximum	1		,	25	7 Days/Week	Grab	EFA-01	See Cond. I.B.5
Total Residual Chlorine (For Disinfection)	MG/L	Minimum	1	•	ı	0.1	Continuous	Meter	EFA~01	See Cond. I.B.6, 9
Turbidity	DIN	Maximum	•	•	-	Report	Continuous	Meter	EFB-01	See Cond. I.B.8, 9
Nitrogen, Total (as N)	MG/L	Maximum			•	Report	Monthly	24-hour FPC	EFA-01	
Phosphorus, Total (as P)	MG/L	Maximum			8	Report	Monthly	24-hour FPC	EFA-01	
Giardia	CYSTS/ 100 L	Maximum		E	,	Report	two years	Filtered	EFA-01	See Cond. I.B.10
Cryptosporidium	OOCYSTS: 100 L	Maximum			ŧ	Report	two years	Filtered	EFA-01	See Cond. I.B.10

FACILITY: Manatee County Southwest WRF

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2. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I. B. 1. and as described below:

PERMIT NUMBER:

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Monitoring Location Site Number	Description of Monitoring Location
EFA-01	Filtered effluent sampling point after disinfection.
EFB-01	Turbidity and TSS monitoring location after filtration and prior to disinfection.
FLW-04	Metered flow for plant water
FLW-05	Metered flow to the public access reuse system
FLW-10	Metered flow from R-001 to the storage ponds or storage tanks.

- 3. Hourly measurement of pH during the period of required operator attendance may be substituted for continuous measurement. [Chapter 62-601, Figure 2]
- 4. Recording flow meters and totalizers shall be utilized to measure flow and calibrated at least annually. [62-601.200(17) and .500(6)]
- 5. Over a 30-day period, at least 75 percent of the fecal coliform values shall be below the detection limits. No sample shall exceed 25 fecal coliforms per 100 mL. No sample shall exceed 5.0 mg/L of total suspended solids (TSS) at a point before the application of the disinfectant. Note: To report the "% less than detection," count the number of fecal coliform observations that were less than detection, divide by the total number of fecal coliform observations in the month, and multiply by 100% (round to the nearest integer). [62-600.440(5)(f)]
- 6. The minimum total chlorine residual shall be limited as described in the approved operating protocol, such that the permit limitation for fecal coliform bacteria will be achieved. In no case shall the total chlorine residual be less than 1.0 mg/L. [62-600.440(5)(b); 62-610.460(2); and 62-610.463(2)]
- 7. The treatment facilities shall be operated in accordance with all approved operating protocols. Only reclaimed water that meets the criteria established in the approved operating protocol(s) may be released to system storage or to the reuse system. Reclaimed water that fails to meet the criteria in the approved operating protocol(s) shall be directed to reject storage for subsequent additional treatment or disinfection. The operating protocol(s) shall be reviewed and updated periodically to ensure continuous compliance with the minimum treatment and disinfection requirements. Updated operating protocols shall be submitted to the Department for review and approval upon revision of the operating protocol(s) and with each permit application. [62-610.320(6) and 62-610.463(2)]
- 8. Turbidity shall be monitored as described in the approved operating protocol, such that the permit limitations for total suspended solids and fecal coliforms will be achieved.
- 9. Instruments for continuous on-line monitoring of total residual chlorine and turbidity shall be equipped with an automated data logging or recording device. [62-610.463(2) & .865(8)(d)]
- 10. Intervals between sampling for Giardia and Cryptosporidium shall not exceed two years. Sampling results shall be reported on DEP Form 62-610.300(4)(a)4 which is attached to this permit (If additional sampling is required in accordance with the attached form, only one additional sampling event will be required within the two year monitoring frequency). This form shall be submitted to the Department and to DEP's Reuse Coordinator in Tallahassee. [62-610.463(4)]

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FACILITY: Manatee County Southwest WRF PERMITTEE: Manatee County Utilities

# B. Other Limitations and Monitoring and Reporting Requirements

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the treatment facility shall be limited and monitored by the permittee as specified below and reported in accordance with Condition I.B.9:

				Limitations	tions			Monitoring Requirements		
Parameter Units	S Max/Min		Annual	Monthly Average	Weekly	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow MGD	Maximum		15.0	Report		1	Continuous	Recording flew meter and totalizer	FLW-01	See Cond.I.D.4
Percent Capacity, PBRCENT (3MRADF*/Permitted Capacity) x 100	NT Maximum	E STATE		Report	a	,	Monthly	Calculation	FLW-01	
BOD, Carbonaceous 5 day, 20C MG/L	C Maximum	E E		Report	3	g	Weekly	24-hour FPC	INF-01	See Cond.I.D.3
Solids, Total Suspended MG/L	L Maximum	II III		Report	e	I.	Wockly	24-hour FPC	NF-01	See Cond.I.D.3
Biosolids Quantity (Transferred to BTF)  Dry Tons	ons Maximum	umu		Report	•	Monthly Total	Monthly	Calculation	RMP-01	See Cond.I.D.8
Biosolids Quantity (Landfilled) Dry Tons	ons Maximum	E E	,	Report	ı	Monthly Total	Monthly	Calculation	RMP-02	See Cond.I.D.8

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Manatee County Southwest WRF FACILITY: Manatee County Utilities

PERMITTEE:

Samples shall be taken at the monitoring site locations listed in Permit Condition I. D. 1 and as described below:

Monitoring Location Site Number	Description of Monitoring Location
FLW-01	Total plant flow, measured by a magnetic flow meter located at the headworks.
INF-01	Influent sampling point at headworks prior to treatment and ahead of plant process waters.
RMP-01	Quantity of biosolids transferred to Biosolids Treatment Facility.
RMP-02	Quantity of biosolids transferred to landfill.

- 3. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters. [62-601.500(4)]
- 4. Recording flow meters and totalizers shall be utilized to measure flow and calibrated at least annually. [62-601.200(17) and .500(6)1
- 5. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method to assure compliance with applicable water quality standards and effluent limitations in accordance with 40 CFR (Code of Federal Regulations) Part 136. Parameter that must be monitored as a result of ground water discharge (i.e., underground injection or land application system) shall be analyzed in accordance with Chapter 62-601, F.A.C. All monitoring shall be representative of the monitored activity. [62-620,320(6)].
- 6. The permittee shall provide safe access points for obtaining representative influent, reclaimed water, and effluent samples which are required by this permit. [62-601.500(5)]
- 7. The Department may for good cause and after notice and, if requested, an administrative hearing pursuant to section 120.57, F.S., the Department shall require the permittee to conform to new or additional permit conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions. When a permit is revised, only the conditions subject to revision are reopened. All other requirements and conditions of the existing permit shall remain in effect until the permit expires. [62-620.325(1)]
- 8. In the absence of a laboratory analysis, to estimate the dry tons generated by a facility that transports liquid biosolids. the average value of 1.5 percent (%) solids may be used. The following formula may be used to convert gallons to dry tons when the estimated percent solids is 1.5%

Dry Tons = 
$$\frac{\text{(gallons X 8.34 lb/gal X 0.015)}}{\text{(2000 lb/ton)}}$$

If the percent solids are known, substitute the known % solids for "0.015" in the formula above. The dry tons shall be reported on the DMR, Part A, and the gallons produced and used for the above calculation shall be reported on the DMR, Part B. During months when biosolids are not transferred to a Biosolids Treatment Facility or to a landfill, the permittee should record zero (0) on the DMR. [62-640.650(5)(a)]

9. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below, unless specified elsewhere in the permit.

REPORT Type	Monitoring Period	Due Date
Monthly	first day of month – last day of month	28th day of following month
Quarterly	January 1 - March 31 April 1 – June 30	April 28 July 28

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FACILITY:

	July 1 – September 30 October 1 – December 31	October 28 January 28	
Semiannual	January 1 – June 30	July 28	
	July 1 – December 31	January 28	
Annual	January 1 – December 31	March 28	

The permittee may submit either paper or electronic DMRs. The permittee must use the attached DMR as a template, without altering the original format or content unless approved by the Department. If submitting electronic DMRs, portable document format (pdf) is preferred. Data submitted electronically is equivalent to data submitted on signed paper DMRs only when bearing an original signature. DMRs shall be submitted for each required monitoring period including months of no discharge.

[62-620.610(18)][62-601.300(1), (2), and (3)]

- 9. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., (except for asbestos, color, and corrosivity). Twenty-four hour composite samples, or grab samples where appropriate, shall be used to analyze reclaimed water or effluent for the primary and secondary drinking water standards. These monitoring results shall be reported to the Department annually on the DMR under monitoring group number RWS-01. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted in lieu of the report. The annual reclaimed water or effluent analysis report or the certification shall be completed and submitted in a timely manner so as to be received by the Department by June 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(i), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. [62-601.300(4)][62-601.500(3)][62-610.300(4)]
- 10. Reuse information shall be submitted with the Manatee County Master Reuse System Permit's Annual Reuse Report using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. [62-610.870(3)]
- 11. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Southwest District Office at the address specified below:

Florida Department of Environmental Protection Compliance Assurance Program Attention: Domestic Wastewater Program Southwest District Office 13051 N. Telecom Parkway Temple Terrace, Florida 33637-0926 Email Address: swd dw@dep.state.fl.us

Phone Number - 813-470-5700 FAX Number - 813-470-5995

All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]

### II. BIOSOLIDS MANAGEMENT REQUIREMENTS

1. Biosolids generated by this facility may be transferred to a Biosolids Treatment Facility (BTF) or disposed of in a Class I solid waste landfill. Transferring biosolids to an alternative biosolids treatment facility does not require a permit modification. However, use of an alternative biosolids treatment facility requires submittal of a copy of the agreement

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pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the biosolids. [62-620.320(6), 62-640.880(1)(c)]

- 2. The permittee shall be responsible for proper treatment, management, use, and land application or disposal of its biosolids. [62-640.880(1)(a)]
- 3. The permittee shall not be held responsible for treatment and management violations that occur after its biosolids have been accepted by a permitted biosolids treatment facility with which the source facility has an agreement in accordance with subsection 62-640.880(1)(c), F.A.C., for further treatment, management, or disposal. [62-640.880(1)(b)]
- 4. Disposal of biosolids, septage, and "other solids" in a solid waste disposal facility, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C. [62-640.100(6)(b) & (c)]
- 5. If the permittee intends to accept biosolids from other facilities, a permit revision is required pursuant to Rule 62-640.880(2)(d), F.A.C. [62-640.880(2)(d)]
- 6. The permittee shall keep records of the quantities of biosolids generated and transferred to another facility, or landfilled. [62-640.650(4)(a)]
- 7. The treatment, management, transportation, use, land application, or disposal of biosolids shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. [62-640.400(6)]
- 8. Storage of biosolids or other solids at this facility shall be in accordance with the Facility Biosolids Storage Plan. [62-640.300(4)]
- 9. Biosolids shall not be spilled from or tracked off the treatment facility site by the hauling vehicle. [62-640.400(9)]
- 10. Florida water quality criteria and standards shall not be violated as a result of land application of biosolids from this facility. [62-640.400(2)]
- 11. The permittee shall keep hauling records to track the transport of biosolids between facilities. The hauling records shall contain the following information:

Required of Source Facility	Required of BTF
Date and Time Shipped	Date and Time Received
Amount of Biosolids Shipped	Amount of Biosolids Received
Degree of Treatment (if applicable)	Name and ID Number of Source Facility
Name and ID Number of Biosolids	Signature of Hauler
Management Facility or Treatment Facility	
Signature of Responsible Party at Source	Signature of Responsible Party at
Facility	Biosolids Treatment Facility
Signature of Hauler and Name of Hauling Firm	

These records shall be kept for five years and shall be made available for inspection upon request by the Department. A copy of the hauling records information maintained by the source facility shall be provided upon delivery of the biosolids to the biosolids treatment facility. The BTF permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of biosolids leaving the source facility and arriving at the biosolids treatment facility. [62-640.880(4)]

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Manatee County Southwest WRF

PERMITTEE: Manatee County Utilities

### III. GROUND WATER REQUIREMENTS

Groundwater monitoring information is contained in the Manatee County Master Reuse System (MCMRS), Permit No. FLA474029.

### IV. ADDITIONAL REUSE AND LAND APPLICATION REQUIREMENTS

Part III Public Access System (R-001)

- 1. The Manatee County Southwest WRF serves as a source plant for reclaimed water which is transferred to the Manatee County Master Reuse System (FLA474029) at a transfer point located immediately downstream of the master use system flow meters at the source plant. The Manatee County Master Reuse System is a Part III slow rate public access land application system serving Manatee County, Florida under Department permit number FLA474029.
- 2. Cross-connections to the potable water system are prohibited. [62-610.469(7)]
- 3. A cross-connection control program shall be implemented and/or remain in effect within the areas where reclaimed water will be provided for use. [62-610.469(7)]
- 4. The permittee shall conduct inspections within the reclaimed water service area to verify proper connections, to minimize illegal cross-connections, and to verify the proper use of reclaimed water. Inspections are required when a customer first connects to the reuse distribution system. Subsequent inspections are required as specified in the cross-connection control and inspection program. [62-610.469(7)(h)]
- 5. If a cross-connection between the potable and reclaimed water systems is discovered, the permittee shall:
  - a. Immediately discontinue potable water and/or reclaimed water service to the affected area.
  - b. If the potable water system is contaminated, clear the potable water lines.
  - c. Eliminate the cross-connection.
  - d. Test the affected area for other possible cross-connections.
  - Within 24 hours, notify the Southwest District Office's domestic wastewater and drinking water programs, and the Pinellas County Health Department's drinking water program.
  - f. Within 5 days of discovery of a cross-connection, submit a written report to the Department detailing: a description of the cross-connection, how the cross-connection was discovered, the exact date and time of discovery, approximate time that the cross-connection existed, the location, the cause, steps taken to eliminate the cross-connection, whether reclaimed water was consumed, and reports of possible illness, whether the drinking water system was contaminated and the steps taken to clear the drinking water system, when the cross-connection was eliminated, plan of action for testing for other possible cross-connections in the area, and an evaluation of the cross-connection control and inspection program to ensure that future cross-connections do not occur. [62-555.350(3) and 62-555.360][62-620.610(20)]
- 6. Maximum obtainable separation of reclaimed water lines and potable water lines shall be provided and the minimum separation distances specified in Rule 62-610.469(7), F.A.C., shall be provided. Reuse facilities shall be color coded or marked. Underground piping which is not manufactured of metal or concrete shall be color coded using Pantone Purple 522C using light stable colorants. Underground metal and concrete pipe shall be color coded or marked using purple as the predominant color. [62-610.469(7)]

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7. In constructing reclaimed water distribution piping, the permittee shall maintain a 75-foot setback distance from a reclaimed water transmission facility to public water supply wells. No setback distances are required to other potable water supply wells or to any nonpotable water supply wells. [62-610.471(3)]

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- 8. A setback distance of 75 feet shall be maintained between the edge of the wetted area and potable water supply wells, unless the utility adopts and enforces an ordinance prohibiting potable water supply wells within the reuse service area. No setback distances are required to any nonpotable water supply well, to any surface water, to any developed areas, or to any private swimming pools, hot tubs, spas, saunas, picnic tables, barbecue pits, or barbecue grills. [62-610.471(1), (2), (5), and (7)].
- 9. Reclaimed water shall not be used to fill swimming pools, hot tubs, or wading pools. [62-610.469(4)]
- 10. Low trajectory nozzles, or other means to minimize aerosol formation shall be used within 100 feet from outdoor public eating, drinking, or bathing facilities. [62-610.471(6)]
- 11. A setback distance of 100 feet shall be maintained from indoor aesthetic features using reclaimed water to adjacent indoor public eating and drinking facilities. [62-610.471(8)]
- 12. The public shall be notified of the use of reclaimed water. This shall be accomplished by posting of advisory signs in areas where reuse is practiced, notes on scorecards, or other methods. [62-610.468(2)]
- 13. All new advisory signs and labels on vaults, service boxes, or compartments that house hose bibbs along with all labels on hose bibbs, valves, and outlets shall bear the words "do not drink" and "no beber," advisory signs posted at storage ponds and decorative water features shall also bear the words "do not swim" and "no nadar" along with the equivalent standard international symbols. Existing advisory signs and labels shall be retrofitted, modified, or replaced in order to comply with the revised wording requirements. For existing advisory signs and labels this retrofit, modification, or replacement shall occur within 365 days after the date of this permit. For labels on existing vaults, service boxes, or compartments housing hose bibbs this retrofit, modification, or replacement shall occur within 730 days after the date of this permit. [62-610.468 & 62-610.469]
- 14. The permittee shall ensure that users of reclaimed water are informed about the origin, nature, and characteristics of reclaimed water; the manner in which reclaimed water can be safely used; and limitations on the use of reclaimed water. Notification is required at the time of initial connection to the reclaimed water distribution system and annually after the reuse system is placed into operation. A description of on-going public notification activities shall be included in the Annual Reuse Report. [62-610.468(6)] Part IV Rapid-Rate Land Application System (R-003)
- 15. Advisory signs shall be posted around the site boundaries to designate the nature of the project area. [62-610.518]
- 16. Rapid infiltration basins shall be routinely maintained to control vegetation growth. [62-610.523(6)]
- 17. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. [62-610.514 and 62-610.414]
- 18. Overflows from emergency discharge facilities on storage ponds or on infiltration ponds, basins, or trenches shall be reported as an abnormal event to the Department's Southwest District Office within 24 hours of an occurrence. The provisions of Rule 62-610.800(9), F.A.C., shall be met. [62-610.800(9)]

### V. OPERATION AND MAINTENANCE REQUIREMENTS

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of a(n) operator(s) certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category II, Class A facility and, at a minimum, operators with appropriate certification must be on the site as follows:

A Class C or higher operator 24 hours/day for 7 days/week. The lead operator must be a Class A.

[62-620.630(3)] [62-699.310] [62-610.462]

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2. The lead operator shall be employed at the plant full time. "Full time" shall mean at least 4 days per week, working a minimum of 35 hours per week, including leave time. A certified operator shall be on-site and in charge of each required shift and for periods of required staffing time when the lead operator is not on-site. An operator meeting the lead operator classification level of the plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. [62-699.311(10), (5) and (1)]

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- 3. An updated capacity analysis report shall be submitted to the Department annually by January 31 of each year. The updated capacity analysis report shall be prepared in accordance with Rule 62-600.405, F.A.C. [62-600.405(5)]
- 4. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. [62-600.735(1)]
- 5. The permittee shall maintain the following records and make them available for inspection on the site of the permitted facility:
  - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
  - b. Copies of all reports required by the permit for at least three years from the date the report was prepared;
  - c. Records of all data, including reports and documents, used to complete the application for the permit for at least three years from the date the application was filed;
  - d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;
  - e. A copy of the current permit;
  - f. A copy of the current operation and maintenance manual as required by Chapter 62-600, F.A.C.;
  - g. A copy of the facility record drawings;
  - h. Copies of the licenses of the current certified operators; and
  - i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and certification number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities; tests performed and samples taken; and major repairs made. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed.

[62-620.350]

### VI. SCHEDULES

1. The following construction schedule for the facilities shall be followed, unless a minor permit revision is issued to amend the schedule:

Implementation Step Completion Date		Completion Date
A.	Submittal of an updated operating protocol for the Part III	30 days after permit issuance.
	Public Access Reuse System.	-
B.	Provide appropriate documentation as required in permit	As required by permit conditions

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Implementation Step		Completion Date
	conditions VIII. 1 & 2 for the proposed modifications to yarding piping, anoxic basins, aeration basins, sludge holding tank modifications discussed in the permit.	VIII. 1 & 2.
C.	Submittal of an annual updated Capacity Analysis Report.	January 31 of each year.

[62-620.400]

### VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

- 1. The permittee shall function as the Control Authority and shall be responsible for the performance of all pretreatment program requirements contained in Chapter 62-625, F.A.C. The permittee shall be subject to enforcement actions, penalties, and other remedies by the Department or other appropriate parties. The permittee shall implement and enforce its Approved Pretreatment Program. The permittee's Approved Pretreatment Program is hereby made an enforceable condition of this permit. The Department may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements. [62-625.500]
- 2. The permittee shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Act. The permittee shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of new industrial users, upon commencement of the discharge. [62-625.410]
- 3. The permittee shall perform the pretreatment functions as required in Chapter 62-625, F.A.C., including, but not limited to, the following:
  - a. Implementing the necessary legal authorities as provided in Rule 62-625,500(2)(a), F.A.C. This includes, among other things, the authority to require compliance with applicable pretreatment standards, which includes general prohibitions listed in Rule 62-625.400(1), F.A.C., specific prohibitions in Rule 62-625.400(2), F.A.C., locally developed limits as required by Rules 62-625.400(3) and (4), F.A.C., and national categorical limits in accordance with Rule 62-625.410, F.A.C.;
  - b. Implementing the programmatic functions as required under Rule 62-625.500(2)(b), F.A.C.;
  - c. Providing the required funding, equipment, and personnel to implement the pretreatment program as provided in Rules 62-625.500(2), (3), and (4), F.A.C.; and
  - d. Providing a written technical evaluation that local limits have been developed in accordance with Rule 62-625.400(3)(a), F.A.C. The evaluation shall verify whether existing local limits protect the wastewater facilities, and if not, the permittee shall develop new local limits as part of the evaluation. This evaluation shall be submitted to the Department at the address in the condition below within 180 days after permit renewal.

[62-625.400 and .500]

4. As required by Rules 62-625.600(8) and (12), F.A.C., the permittee shall submit a signed copy of the annual report for pretreatment activities, including DMRs for Monitoring Group Numbers PRT-I, PRT-E, and PRT-R, to the Department at the following address:

Florida Department of Environmental Protection Domestic Wastewater Section, Mail Station 3540 Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

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The annual report shall contain the information required in accordance with Rule 62-625.600(8), F.A.C., except section (8)(e) as noted below, and shall describe the permittee's pretreatment activities for the reporting year. In the event that the permittee is not in compliance with any conditions or requirements of the pretreatment program, then the permittee shall also include the reasons for noncompliance and state how and when the permittee shall comply with such conditions and requirements.

In order to comply with Rule 62-625.600(8)(e), F.A.C., the permittee shall submit annual DMRs with the analytical results of influent, effluent, and residuals for those pollutants listed on the DMRs. For any other nonpriority pollutants which the permittee believes may be causing or contributing to interference, pass through, or adversely impacting residuals quality, the annual report shall provide a summary of all analytical results of influent, effluent, and residuals. The annual report and DMRs are due on August 1 of each year.

[62-625.600(12)]

5. Samples for Monitoring Group Numbers PRT-I, PRT-E, and PRT-R shall be taken at the monitoring site locations described below:

Monitoring Location Site Number	Description of Monitoring Location
PRT-I	Influent pre-treatment sampling location (at INF-01, the influent sampling point at the headworks ahead of plant process waters).
PRT-E	Effluent pre-treatment sampling location (at EFA-01, the filtered effluent sampling point after disinfection).
PRT-R	Residuals pre-treatment sampling location (at RMP-B, after the belt presses).

### VIII. OTHER SPECIFIC CONDITIONS

- 1. Prior to placing the new facilities into operation or any individual unit processes into operation, for any purpose other than testing for leaks and equipment operation, the permittee shall complete and submit to the Department DEP Form 62-620.910(12), Notification of Completion of Construction for Domestic Wastewater Facilities. [62-620.630(2)]
- 2. Within six months after a facility is placed in operation, the permittee shall provide written certification to the Department on Form 62-620.910(13) that record drawings pursuant to Chapter 62-600, F.A.C., and that an operation and maintenance manual pursuant to Chapters 62-600 and 62-610, F.A.C., as applicable, are available at the location specified on the form. [62-620.630(7)]
- 3. The permittee shall apply for renewal of this permit at least 180 days before the expiration date of the permit using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C. The existing permit shall not expire until the Department has taken final action on the application renewal in accordance with the provisions of 62-620.335(3) and (4), F.A.C. [62-620.335(1)-(4)]
- 4. Florida water quality criteria and standards shall not be violated as a result of any discharge or land application of reclaimed water or residuals from this facility. [62-610.850(1)(a) and (2)(a)][62-640.700(2)(b)]
- 5. In the event that the treatment facilities or equipment no longer function as intended, are no longer safe in terms of public health and safety, or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by Rule 62-600.400(2)(a), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in Rule 62-296.320(2), F.A.C. [62-600.410(8) and 62-640.400(6)]
- 6. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and

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domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. [62-604.130(3)]

- 7. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. [62-604.550] [62-620.610(20)]
- 8. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):
  - a. Which may cause fire or explosion hazards; or
  - b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or
  - c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or
  - d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40°C or otherwise inhibiting treatment; or
  - e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health or safety problems.

[62-604.130(5)]

- 9. The treatment facility, storage ponds, rapid infiltration basins, and/or infiltration trenches shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. [62-610.518(1)] [62-610.418(1)] [and 62-600.400(2)(b)]
- 10. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. [62-701.300(1)(a)]
- 11. The Permittee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The Permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery. [62-4.070(3)]
- 12. The permittee shall provide adequate notice to the Department of the following:
  - a. Any new introduction of pollutants into the facility from an industrial discharger which would be subject to Chapter 403, F.S., and the requirements of Chapter 62-620, F.A.C. if it were directly discharging those pollutants; and
  - b. Any substantial change in the volume or character of pollutants being introduced into that facility by a source which was identified in the permit application and known to be discharging at the time the permit was issued.

Adequate notice shall include information on the quality and quantity of effluent introduced into the facility and any anticipated impact of the change on the quantity or quality of effluent or reclaimed water to be discharged from the facility.

[62-620.625(2)]

### IX. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida