

# Florida Department of **Environmental Protection**

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Carlos Lopez-Cantera Lt. Governor

> Noah Valenstein Secretary

## STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:

City of Naples

PERMIT NUMBER: FILE NUMBER:

FL0026271 (Major) FL0026271-015-DW1P June 14, 2017

EFFECTIVE DATE: EXPIRATION DATE: REVISION DATE:

June 13, 2022 August 30, 2017

RESPONSIBLE OFFICIAL:

Robert Middleton 380 Riverside Circle Naples, Florida 34102 (239) 213-4745

#### FACILITY:

City of Naples Water Reclamation Facility 1400 3rd Avenue North Naples, FL 34102 Collier County

Latitude: 26°9' 6.85" N Longitude: 81°47' 17.49" W EPA STANDARP

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.) and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above-named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

#### WASTEWATER TREATMENT:

Operate an existing 10.0 million gallons per day (MGD) maximum monthly average daily flow (MMADF) Bardenpho process water reclamation facility (WRF) consisting of two preliminary mechanical bar screens, an aerated grit removal system, four 1st anoxic basins totaling 0.965 million gallons (MG), four aeration basins totaling 2.13 MG, four 2nd anoxic basins totaling 0.88 MG, an alum feed system, four reaeration basins totaling 0.229 MG, six secondary clarifiers totaling 23,326 sq.ft., a flash mixer, two flocculators, three tertiary filters totaling 4,320 sq.ft., two chlorine contact basins totaling 209,628 gallons, an effluent transfer pump station, a reuse distribution pump station, two 5.0 MG reuse/effluent storage tanks, a sulfur dioxide dechlorination system, a cascade aeration unit, and two residuals (WAS) aerated holding tanks totaling 0.754 MG.

For biosolids treatment, the facility also includes three belt filter presses, truck loading belt conveyers, a sludge thermofeeder, a sludge/lime mixer thermoblender, a lime storage and feed system, lime transfer and screw conveyors, a pasteurization vessel, and associated appurtenances. Dewatered biosolids are disposed of at Lee County's composting facility. This equipment is currently not in use, but may be brought back into service if required.

The permittee is authorized to construct modifications to convert the gas chlorine system to a liquid chlorine disinfection system.



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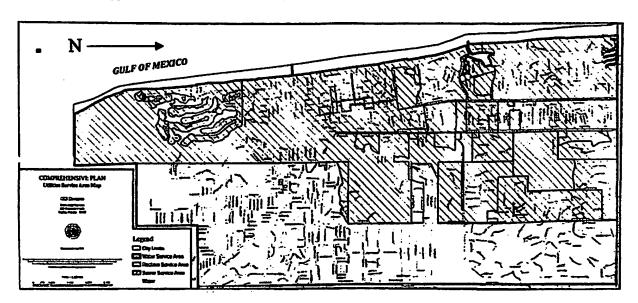
#### **REUSE OR DISPOSAL:**

Surface Water Discharge D-002: An existing 10.0 MG (MMADF), 2.42 MGD annual average daily flow (AADF) permitted discharge to the Gordon River (Class III Marine waters) which is upstream of the Bay of Naples at Discharge Location (D-002) (WBID# 3278R5) which is approximately 50 feet in length and discharges at a depth of approximately 5 feet. The point of discharge is located approximately at latitude 26° 09' 06" N, longitude 81° 47' 09" W.

Underground Injection U-001: Reference ASR permit number(s) 261821-UC/5SR-007, 008, and 009.

The City of Naples is authorized to introduce recovered water from its reclaimed water aquifer storage and recovery (ASR) system into the existing wastewater treatment facility prior to disinfection and filtration. This introduction of recovered water shall not cause a violation of any permit limits, nor shall recovered water be discharged to the existing surface water outfall D-002.

Land Application R-001: An existing 16.0 MGD annual average daily flow design capacity slow-rate public access system. The permitted capacity for R-001 is 10.0 MGD MMADF. R-001 is a reuse system which consists of a general service reuse area with various types of reuse as shown on the map below.



D-003: Reclaimed water is currently stored in stormwater management ponds at the existing Bears Paw golf course existing public access reuse irrigation system. Storage of reclaimed water in these ponds is authorized. The stormwater control structure for the lower stormwater lake intermittently discharges to an unnamed ditch upstream of the Golden Gate Canal (Class III fresh waters) at Discharge Location D-003 (WBID# 3278K), which is upstream of the Gordon River in Collier County, Florida. The point of discharge is located approximately at latitude 26° 12' 19.0434" N, longitude 81° 46' 29.5422" W.

D-004: Reclaimed water is currently stored in stormwater management ponds at the existing Royal Poinciana golf course existing public access reuse irrigation system. The stormwater control structure for the lower stormwater lake intermittently discharges to an unnamed ditch (Class III fresh waters) at Discharge Location D-004 (WBID# 3278K), which is upstream of the Gordon River in Collier County, Florida. Discharge D-004 includes two stormwater structures that are located approximately at latitude 26° 12' 15.7859" N, longitude 81° 46' 31.0872" W and latitude 26° 11' 04" N, longitude 81° 46' 55" W.

D-005: Reclaimed water is currently stored in stormwater management ponds at the existing Quail Run golf course existing public access reuse irrigation system. The stormwater control structure for the lower stormwater lake intermittently discharges to an unnamed ditch (Class III fresh waters) at Discharge Location D-005 (WBID# 3278K), which is upstream of the Gordon River in Collier County, Florida.

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## I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

### A. Surface Water Discharges

 During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge effluent from Outfall D-002 to Gordon River. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.D.8.;

	Units	Max/Min	Effluent Limitations		Monitoring Requirements			
Parameter			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	2.42 10.0	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	EFF-01	See I.A.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	Daily; 24 hours	Grab	EFB-01	
Coliform, Fecal	#/100mL	Max	25	Single Sample	Daily; 24 hours	Grab	EFA-01	
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	Daily; 24 hours	Calculated	EFA-01	See I.A.5
pH	s.u.	Min Max	6.5 8.5	Single Sample Single Sample	Continuous	Meter	EFA-01	See I.A.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-01	See I.A.3 and I.A.6
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily; 24 hours	Grab	EFF-01	
Nitrogen, Total	mg/L	Max Max Max Max	3.0 PP 3.75 4.5 6.0	Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	1.0 P l 1.25 1.5 2.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Silver, Total Recoverable	ug/L	Max	Report	Single Sample	Annually	24-hr FPC	EFF-01	
Aluminum, Total Recoverable	mg/L	Max	Report	Single Sample	Annually	24-hr FPC	EFF-01	,
Iron, Total Recoverable	mg/L	Max	0.3	Single Sample	Annually	24-hr FPC	EFF-01	