



## **ONWASA Wastewater Facilities Annual Report for 2018**

The Onslow Water and Sewer Authority (ONWASA) is required by the North Carolina Clean Water act of 1999 to produce this annual report on the performance of each Publicly Operated Treatment Works (POTW) and Collection System operated and maintained by ONWASA. This report is available for public review via the ONWASA website, the ONWASA Main Office and Member Governments.

ONWASA is pleased to present to you the 2018 Wastewater Facilities Annual Report. This report is a summary of last year's wastewater facilities performance. Included are descriptions of each facility's monthly activity. Our constant goal through wastewater treatment is to protect public health and safety by minimizing the risk of further contamination to surface and ground waters, to protect the quality of surface and ground waters so they will continue to be available as a drinking water source for future generations, and to prevent and abate public health hazards. We want you to understand the effort we make to continually improve the wastewater treatment process and protect our water resources. We are committed to providing you with this information, because informed customers provide support in our continuing efforts.

In 2018, ONWASA managed 5 treatment facilities and 7 collection systems. The facilities were as follows: Northwest Regional Reclamation Facility, Holly Ridge Wastewater Treatment Plant, Swansboro Wastewater Treatment Plant, Summerhouse Wastewater Treatment Plant, and Hickory Grove WWTP. Each Wastewater system listed above has a collection system, two other system are pumped to other Treatment Plants, Springdale is pumped to the City of Jacksonville and Piney Green is pumped to Camp Lejeune. This report provides a description and snap shot of the monthly activities of each plant and the collection system operated by ONWASA.

Should you have any questions regarding this report you may contact us at:

ONWASA  
228 Georgetown Rd.  
Jacksonville, NC 28540  
(910) 455-0722

## **New Collection Systems 2018**

*This year ONWASA has added the following gravity lines to the Collection system in various projects:*

**Holly Ridge Townhomes:** 270 feet of 8-inch gravity line

**Stones Landing Section II-B:** 921 feet of 8-inch gravity line

**Shipwright Pointe Section I:** 1,080 of 8-inch gravity line

## **Hickory Grove: Summary**

The Hickory Grove Wastewater Treatment Plant (WWTP) is located off Easy Street in the Hickory Grove Subdivision and is operated by the staff of the Swansboro WWTP. The plant is designed to treat 22,500 gallons per day (GPD). This Plant was taken off line in April of 2015 and replaced by a lift station. The Plant still retains the NPDES permit for discharge. ONWASA is currently working on the closure of the WWTP per the State of NC.

## **Hickory Grove: General Information**

Facility Name: Hickory Grove WWTP  
Facility Type/ Operation: Facultative Lagoon  
Responsible Entity: ONWASA  
Facility Address: Hickory Grove Subdivision  
Facility Phone: (910) 455-0722  
Operator in Responsible Charge (ORC): Mark Young  
ORC Type / Grade License: WW4, SI, SS  
Applicable Facility Permit Numbers: NC 0034991

Description of Facility: The facility is located off NCSR 1406 east of Jacksonville at the Hickory Grove Subdivision. The facility is rated to treat 0.0225 MGD or 22,500 gallons per day of wastewater. The system is comprised of a 2.9-acre lagoon, a tablet chorine system and a chlorine contact chamber with de-chlorination. The discharge point is to the Little Northeast Creek and is classified C-NSW waters in the White Oak River Basin.

## **Hickory Grove: Collection System**

Collection System Name: Hickory Grove Collection System  
Responsible Entity: Onslow Water and sewer Authority ONWASA  
Facility Address: Hickory Grove Subdivision  
Contact Phone: (910) 937-7560  
Operator in Responsible Charge (ORC): Kenneth M. Padgett  
ORC Type / Grade License: CS Grade 3 License # 999597  
Applicable Collection System Permit Numbers: WQCS00249

## **Holly Ridge: Summary**

Holly Ridge Wastewater Treatment Plant (WWTP) is located at 286 N. Jenkins Street and is currently staffed by three plant operators. The plant has a design capacity of 0.261 million gallons per day (MGD). The average flow at the plant in 2018 was .182 MGD, which is 76% of the permitted design flow of the wastewater plant. The facility treated a total of 64,814,080 gallons during the past year; an average of 5,401,173 gallons per month.

## **General Information**

Facility Name: Holly Ridge WWTP and Wastewater Surface Irrigation

Facility Type/ Operation: Grade 2 WWTP and Surface Irrigation Facility

Responsible Entity: ONWASA

Facility Address: 286 N. Jenkins St. Holly Ridge, N.C. 28445 (WWTP) 220

Dolph Everett Rd. Holly Ridge, N.C. 28445 (Surface Irrigation Facility)

Contact Phone: (910) 545-6877

Operator in Responsible Charge (ORC): Michael Lutz

ORC Type / Grade License: WW4, SI,

Applicable Facility Permit Numbers: WQ0019907

Description of Facility: The Holly Ridge WWTP is a 260,626 GPD Wastewater treatment facility consisting of headworks with manual bar screen and grit chamber, influent flow measurement with ultrasonic flow meter; a 1.82 (MG) treatment lagoon with three (3) aeration cells (cells 1&2 each have 2-25 HP aerators with anti-erosion baffles, cell 3 has 2-25 HP mixers with anti-erosion baffles), a 0.49 MG settling cell; an ultraviolet (UV) disinfection system; a 22,400 gallon aerobic sludge digester with a 2 HP aerator and 3 HP discharge pump; an effluent pump station with duplex 450 GPM pumps; and 17,900 ft. of 8 in. force main to Surface Irrigation Facility. The Surface Irrigation is a 240,179 GPD facility consisting of a 13.30 MG storage lagoon (51 days storage); ten (10) spray fields consisting of 93.42 wetted acres (789 total spray heads); and an irrigation pump station with dual 700 GPM pumps and an effluent flow meter. The Holly Ridge WWTP and Surface Irrigation Facility is a Non-Discharge facility.

## **Holly Ridge Collection System**

Collection System Name: Town of Holly Ridge Wastewater Collection System

Collection System Grade/ Type Operation: Grade 1/ Domestic

Responsible Entity: Onslow Water and Sewer Authority (ONWASA)

Facility Address Town of Holly Ridge located in the southeast part of Onslow County

Contact Phone: (910) 937-7560

Operator in Responsible Charge (ORC): Kenneth M. Padgett

ORC Type / Grade License: CS Grade 3 License #999597

Applicable Collection System Permit Numbers: WQCS00249

**2018  
Holly Ridge  
Annual WW Report**

**January**

5,511,480 TOTAL GALLONS TREATED  
 0.178 AVERAGE FLOW (MGD)  
 0.409 MAX DAY (MGD)  
 Yes **WWTP IN COMPLIANCE**  
 8.8 TOTAL INCHES RAIN FALL  
 1,553,630 GALLONS SPRAYED  
 0.178 AVERAGE FLOW (PERMIT FLOW 0.24 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

**February**

4,163,110 TOTAL GALLONS TREATED  
 0.139 AVERAGE FLOW (MGD)  
 0.312 MAX DAY (MGD)  
 Yes **WWTP IN COMPLIANCE ( Explanation)**  
 3.91 TOTAL INCHES RAIN FALL  
 3,389,400 GALLONS SPRAYED  
 0.139 AVERAGE FLOW (PERMIT FLOW 0.24 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

**March**

3,956,490 TOTAL GALLONS TREATED  
 0.128 AVERAGE FLOW (MGD)  
 0.220 MAX DAY (MGD)  
 Yes **WWTP IN COMPLIANCE**  
 2.82 TOTAL INCHES RAIN FALL  
 2,383,330 GALLONS SPRAYED  
 0.128 AVERAGE FLOW (PERMIT FLOW 0.24 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

**April**

4,236,430 TOTAL GALLONS TREATED  
 0.141 AVERAGE FLOW (MGD)  
 0.326 MAX DAY (MGD)  
 Yes **WWTP IN COMPLIANCE ( Explanation)**  
 7.56 TOTAL INCHES RAIN FALL  
 2,178,267 GALLONS SPRAYED  
 0.141 AVERAGE FLOW (PERMIT FLOW 0.24 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 20.5 ACRES MOWED

**May**

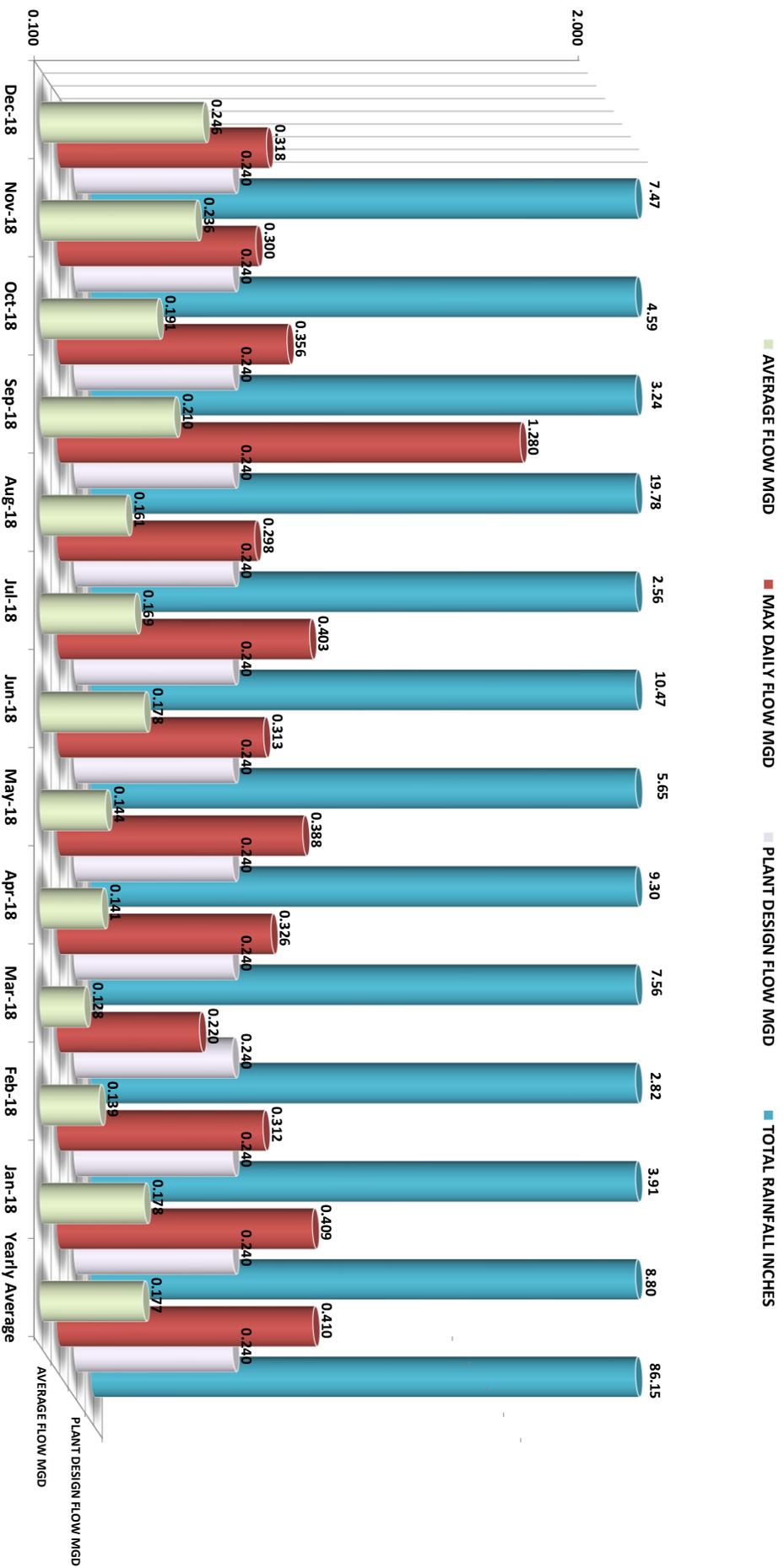
4,450,350 TOTAL GALLONS TREATED  
 0.144 AVERAGE FLOW (MGD)  
 0.388 MAX DAY (MGD)  
 YES **WWTP IN COMPLIANCE ( Explanation)**  
 9.3 TOTAL INCHES RAIN FALL  
 1,984,532 GALLONS SPRAYED  
 0.144 AVERAGE FLOW (PERMIT FLOW 0.24 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 117.89 ACRES MOWED

**June**

5,349,510 TOTAL GALLONS TREATED  
 0.178 AVERAGE FLOW (MGD)  
 0.313 MAX DAY (MGD)  
 YES **WWTP IN COMPLIANCE**  
 5.65 TOTAL INCHES RAIN FALL  
 3,386,940 GALLONS SPRAYED  
 0.178 AVERAGE FLOW (PERMIT FLOW 0.24 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 61.44 ACRES MOWED

<b>July</b>			
5,238,060	TOTAL GALLONS TREATED		
0.169	AVERAGE FLOW (MGD)		
0.403	MAX DAY (MGD)		
YES	WWTP IN COMPLIANCE		
10.47	TOTAL INCHES RAIN FALL		
3,188,990	GALLONS SPRAYED		
0.169	AVERAGE FLOW (PERMIT FLOW 0.24 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
4	ACRES MOWED		
<b>August</b>			
4,977,780	TOTAL GALLONS TREATED		
0.161	AVERAGE FLOW (MGD)		
0.298	MAX DAY (MGD)		
YES	WWTP IN COMPLIANCE ( Explanation)		
2.56	TOTAL INCHES RAIN FALL		
4,119,901	GALLONS SPRAYED		
0.161	AVERAGE FLOW (PERMIT FLOW 0.24 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
104.44	ACRES MOWED		
<b>September</b>			
6,309,100	TOTAL GALLONS TREATED		
0.210	AVERAGE FLOW (MGD)		
1.280	MAX DAY (MGD)		
Yes	WWTP IN COMPLIANCE ( Explanation)		
19.78	TOTAL INCHES RAIN FALL		
3,446,011	GALLONS SPRAYED		
0.210	AVERAGE FLOW (PERMIT FLOW 0.24 MGD)		
Yes	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>October</b>			
5,912,580	TOTAL GALLONS TREATED		
0.191	AVERAGE FLOW (MGD)		
0.356	MAX DAY (MGD)		
NO	WWTP IN COMPLIANCE ( Explanation)	10/27-10/29 the minimum freeboard requirement was no met.	
3.24	TOTAL INCHES RAIN FALL		
3,969,769	GALLONS SPRAYED		
0.191	AVERAGE FLOW (PERMIT FLOW 0.24 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>November</b>			
7,084,300	TOTAL GALLONS TREATED		
0.236	AVERAGE FLOW (MGD)		
0.300	MAX DAY (MGD)		
NO	WWTP IN COMPLIANCE	Monthly average flow limit exceeded.	
4.59	TOTAL INCHES RAIN FALL		
7,932,182	GALLONS SPRAYED		
0.300	AVERAGE FLOW (PERMIT FLOW 0.24 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>December</b>			
7,624,890	TOTAL GALLONS TREATED		
0.246	AVERAGE FLOW (MGD)		
0.318	MAX DAY (MGD)		
No	WWTP IN COMPLIANCE	Monthly average flow limit exceeded.	
7.47	TOTAL INCHES RAIN FALL		
6,147,357	GALLONS SPRAYED		
0.246	AVERAGE FLOW (PERMIT FLOW 0.24 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
64,814,080	Total Treated	0.00	Total Footage Pipe Cleaned
43,680,309	Total Spray	0	Total Footage Pipe Videoed
0.177	Average MG/day treated	73.65%	Percentage of design flow
86.15	Total Inches Rainfall		
0.410	Average MAX Flow (MGD)	171%	% of design flow using Max Avg.

# Holly Ridge WWTP



## **Northwest Regional Reclamation Facility: Summary**

Northwest Regional Reclamation Facility SBR (WWTP) is located at 189 Mills Field Road and is currently staffed by three plant operators. The plant has a design capacity of 1.273 million gallons per day (MGD). The average flow at the plant in 2018 was 0.392 MGD, which is 31 % of the permitted design flow of the wastewater plant. The facility treated a total of 143,284,844 gallons during the past year, an average of 11,940,404 gallons per month.

### **General Information**

Facility Name: Northwest Regional Reclamation Facility  
Type/ Operation: Grade 4 SBR WWTP and High-rate Infiltration Facility  
Responsible Entity: ONWASA  
Facility Address: 189 Mills Field Road Richlands, N.C. 28574  
Facility Phone: (910) 937-7572  
Operator in Responsible Charge (ORC): Mark C. Young  
ORC Type / Grade License: WW4, SI, CS2, SS  
Applicable Facility Permit Numbers: WQ0034367

Description of Facility: The Northwest Regional Reclamation Facility design flow is 1,272,973 (GPD) wastewater treatment, high infiltration and reclaimed water bulk distribution system. The plant has: plant drain station, influent flow meter, 2 fine screen/grit removal systems, flow splitter box, 2 sequencing batch reactors, 2 sludge digesters, post EQ basin, 2 tertiary disc filter units, membrane feed tank, membrane skids for blowers, UV disinfection system, 3 chemical bulk tanks and 4 high –rate infiltration basins,

### **Richlands Collection System**

Collection System Name: Richlands Wastewater Collection System  
Collection System Grade/ Type Operation: Grade 2/ Domestic  
Responsible Entity: Onslow Water and Sewer Authority (ONWASA)  
Facility Address: Town of Richlands located in the northwest part of Onslow County  
Contact Phone: (910) 937-7560  
Operator in Responsible Charge (ORC): Kenneth M. Padgett  
ORC Type / Grade License: CS Grade 3 License #999597  
Applicable Collection System Permit Numbers: WQCS00249

**2018  
Northwest Plant  
Annual WW Report**

**January**

11,679,223 TOTAL GALLONS TREATED  
 0.378 AVERAGE FLOW (MGD)  
 0.812 MAX DAY (MGD)  
 No **WWTP IN COMPLIANCE**  
 7.95 TOTAL INCHES RAIN FALL  
 11,679,223 GALLONS Applied to Basins  
 0.378 AVERAGE FLOW (PERMIT FLOW 1.27 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

The plant had violation for Fecal and NH3. The plant had failures with the decant valves at the SBRs which contributed to the violations. New valves have been ordered and will be replaced soon.

**February**

10,186,917 TOTAL GALLONS TREATED  
 0.364 AVERAGE FLOW (MGD)  
 0.845 MAX DAY (MGD)  
 No **WWTP IN COMPLIANCE ( Explanation)**  
 1.95 TOTAL INCHES RAIN FALL  
 10,186,917 GALLONS Applied to Basins  
 0.364 AVERAGE FLOW (PERMIT FLOW 1.27 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 10 ACRES MOWED

The plant had continued violations from the SBR Decant Valve failures. The new valves were installed and the entire plant was cleaned out. In the last week of the month, the plant was back in compliance.

**March**

11,064,266 TOTAL GALLONS TREATED  
 0.357 AVERAGE FLOW (MGD)  
 0.671 MAX DAY (MGD)  
 Yes **WWTP IN COMPLIANCE**  
 4.25 TOTAL INCHES RAIN FALL  
 11,064,266 GALLONS Applied to Basins  
 0.357 AVERAGE FLOW (PERMIT FLOW 1.27 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 30 ACRES MOWED

**April**

11,321,419 TOTAL GALLONS TREATED  
 0.377 AVERAGE FLOW (MGD)  
 0.552 MAX DAY (MGD)  
 No **WWTP IN COMPLIANCE ( Explanation)**  
 5.25 TOTAL INCHES RAIN FALL  
 11,321,419 GALLONS Applied to Basins  
 0.377 AVERAGE FLOW (PERMIT FLOW 1.27 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 100 ACRES MOWED

The plant had violations for Fecal and Ammonia. The fecal was associated with UV system failures and the ammonia was likely due to seasonal changes and lower aeration set points. Both parameters were compliant by the end of the month.

**May**

10,911,932 TOTAL GALLONS TREATED  
 0.352 AVERAGE FLOW (MGD)  
 0.924 MAX DAY (MGD)  
 No **WWTP IN COMPLIANCE ( Explanation)**  
 13.45 TOTAL INCHES RAIN FALL  
 10,911,932 GALLONS Applied to Basins  
 0.352 AVERAGE FLOW (PERMIT FLOW 1.27 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

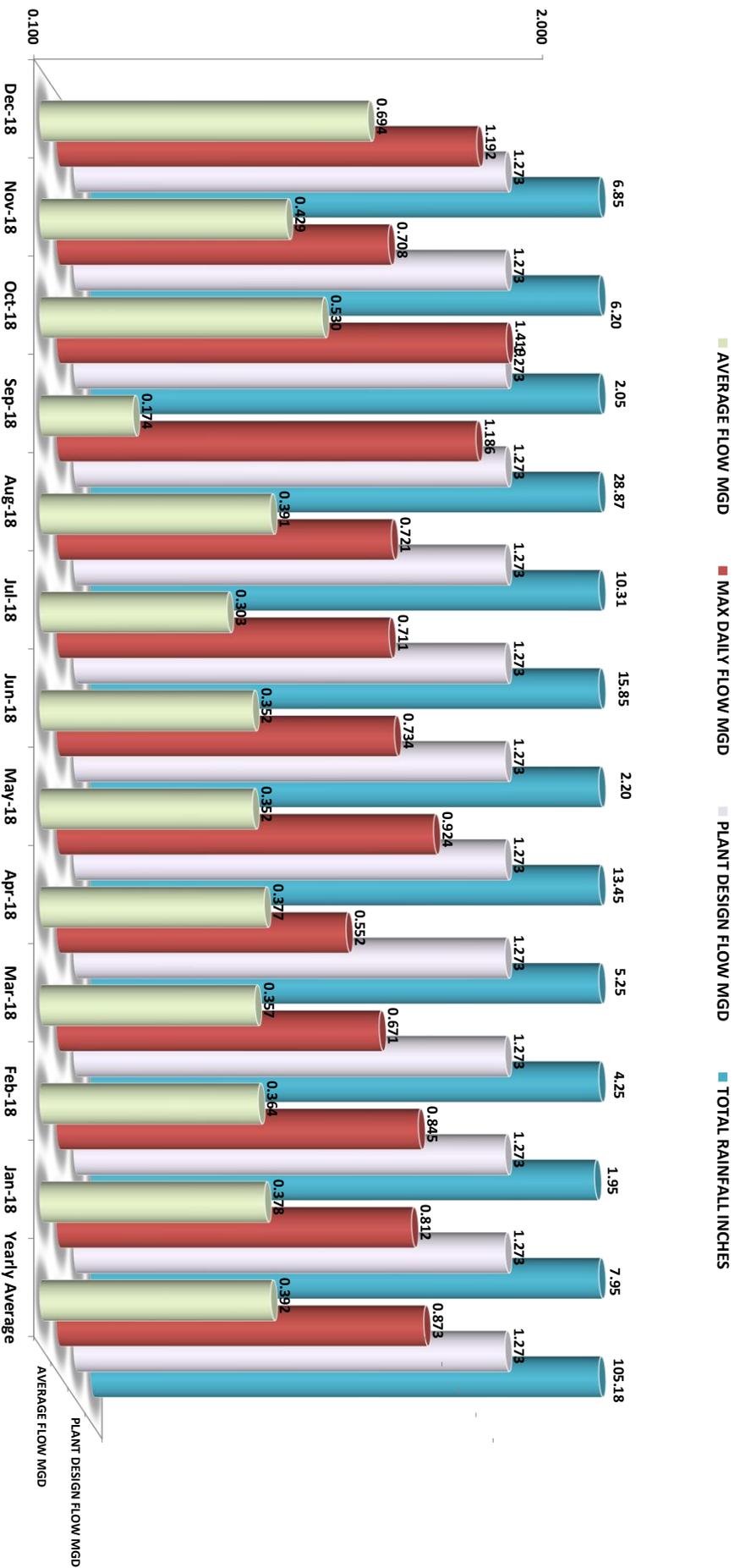
The plant had violations for 2 daily fecals, ammonia and monthly phos avg. The UV wiper system failed which prevented the UV light from properly disinfecting the water, ammonia was at the beginning of the month and corrected by the plant set point changes. Phosphorus started trending downward and back in allowable levels

**June**

10,570,152 TOTAL GALLONS TREATED  
 0.352 AVERAGE FLOW (MGD)  
 0.734 MAX DAY (MGD)  
 Yes **WWTP IN COMPLIANCE**  
 2.2 TOTAL INCHES RAIN FALL  
 10,570,152 GALLONS Applied to Basins  
 0.352 AVERAGE FLOW (PERMIT FLOW 1.27 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

<b>July</b>			
9,394,703	TOTAL GALLONS TREATED		
0.303	AVERAGE FLOW (MGD)		
0.711	MAX DAY (MGD)		
No	<b>WWTP IN COMPLIANCE</b>		Plant had multiple violations for exceeding BOD limits due to staff attempts to dechlorinate the effluent samples before delivery to the lab. We are working with Hach and NCDWR to resolve the dosing errors.
15.85	TOTAL INCHES RAIN FALL		
9,394,703	GALLONS Applied to Basins		
0.303	AVERAGE FLOW (PERMIT FLOW 1.27 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>August</b>			
12,115,756	TOTAL GALLONS TREATED		
0.391	AVERAGE FLOW (MGD)		
0.721	MAX DAY (MGD)		
No	<b>WWTP IN COMPLIANCE ( Explanation)</b>		The plant had one daily fecal limit violation
10.31	TOTAL INCHES RAIN FALL		
12,115,756	GALLONS Applied to Basins		
0.391	AVERAGE FLOW (PERMIT FLOW 1.27 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>September</b>			
5,224,772	TOTAL GALLONS TREATED		
0.174	AVERAGE FLOW (MGD)		
1.186	MAX DAY (MGD)		
No	<b>WWTP IN COMPLIANCE ( Explanation)</b>		The plant reported a 3.2 million gallon spill due to flooding from Hurricane Florence.
28.87	TOTAL INCHES RAIN FALL		
5,224,772	GALLONS Applied to Basins		
0.174	AVERAGE FLOW (PERMIT FLOW 1.27 MGD)		
Yes	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>October</b>			
16,443,804	TOTAL GALLONS TREATED		
0.530	AVERAGE FLOW (MGD)		
1.419	MAX DAY (MGD)		
No	<b>WWTP IN COMPLIANCE ( Explanation)</b>		The plant had one daily fecal limit exceedence. Staff continued to work on the plant following Hurricane Florence.
2.05	TOTAL INCHES RAIN FALL		
16,443,804	GALLONS Applied to Basins		
0.530	AVERAGE FLOW (PERMIT FLOW 1.27 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>November</b>			
12,864,000	TOTAL GALLONS TREATED		
0.429	AVERAGE FLOW (MGD)		
0.708	MAX DAY (MGD)		
No	<b>WWTP IN COMPLIANCE</b>		The plant had one daily fecal limit exceedence. Staff continued to work on the plant following Hurricane Florence.
6.2	TOTAL INCHES RAIN FALL		
12,864,000	GALLONS Applied to Basins		
0.429	AVERAGE FLOW (PERMIT FLOW 1.27 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>December</b>			
21,507,900	TOTAL GALLONS TREATED		
0.694	AVERAGE FLOW (MGD)		
1.192	MAX DAY (MGD)		
Yes	<b>WWTP IN COMPLIANCE</b>		
6.85	TOTAL INCHES RAIN FALL		
21,507,900	GALLONS Applied to Basins		
0.694	AVERAGE FLOW (PERMIT FLOW 1.27 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
143,284,844	Total Treated		
143,284,844	Total Applied to Basins	0.00	Total Footage Pipe Cleaned
0.392	Average MG/day treated	0	Total Footage Pipe Videoed
0.392	Average MG/day sprayed	68.63%	Percentage of design flow
105.18	Total Inches Rainfall		
0.873	Average MAX Flow (MGD)		

# Northwest Regional Water Reclamation Facility



## **Collection System**

Collection System Name: Piney Green Wastewater Collection

System Collection System Grade/ Type Operation: Grade 1/ Domestic

Responsible Entity: Onslow Water and Sewer Authority (ONWASA)

Facility Address: East of the City of Jacksonville, along the Piney Green Corridor

Contact Phone: (910) 937-7560

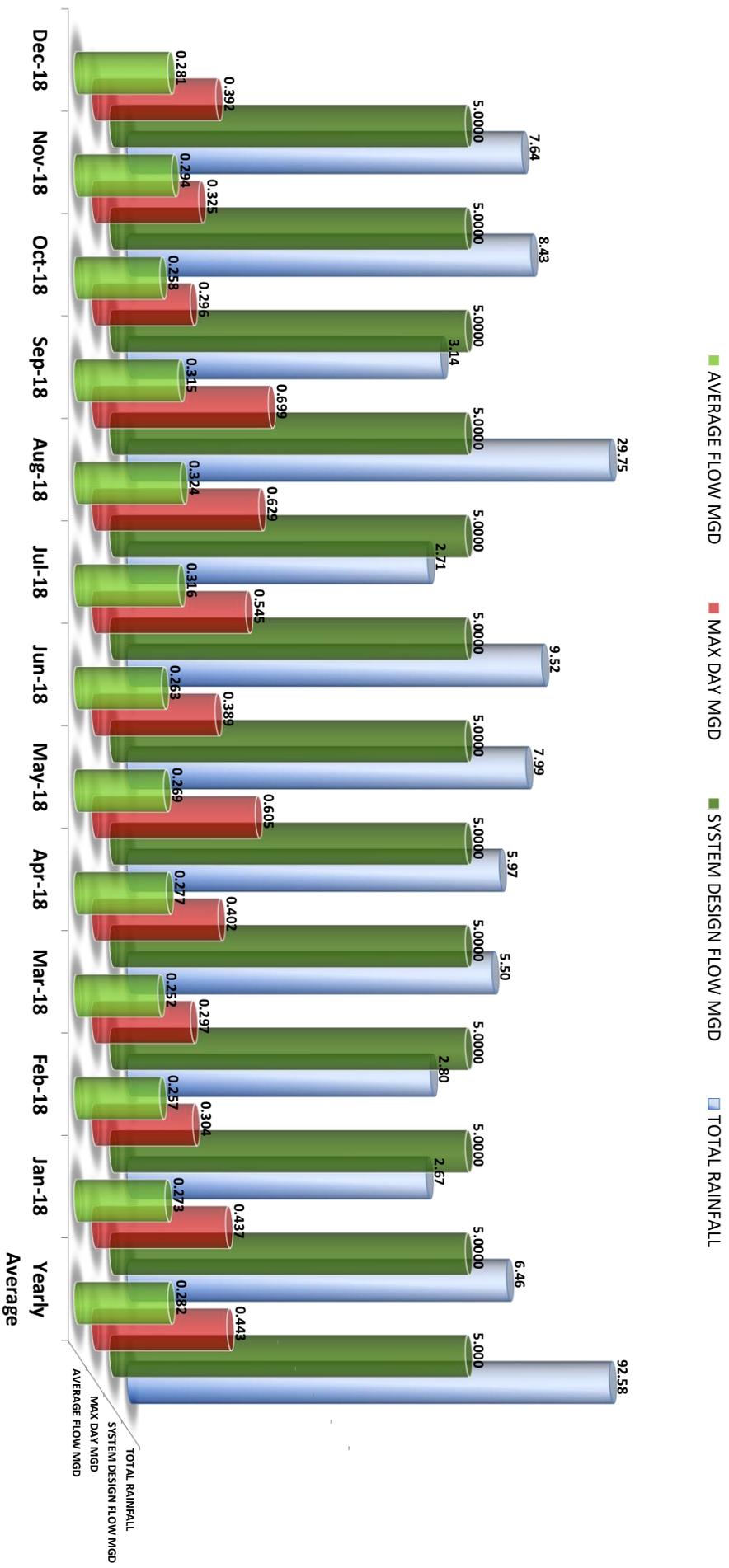
Operator in Responsible Charge (ORC): Kenneth M. Padgett

ORC Type / Grade License: CS Grade 3 License # 999597

Applicable Collection System Permit Numbers: WQCS00249

Description of Collection System: This system consists of fifty-one thousand, four hundred and forty-nine feet (51,449') of gravity sewer ranging from eight inch (8") to fifteen inch (15") and sixty-three thousand, nine hundred and ninety-three feet (63,993') of force mains ranging from four inch (4") to twenty-four inch (24"). The system has a total of 10 pump stations. The Piney Green pump station is the main pump station that sends the flow directly to the French Creek WWTP on Camp Lejeune.

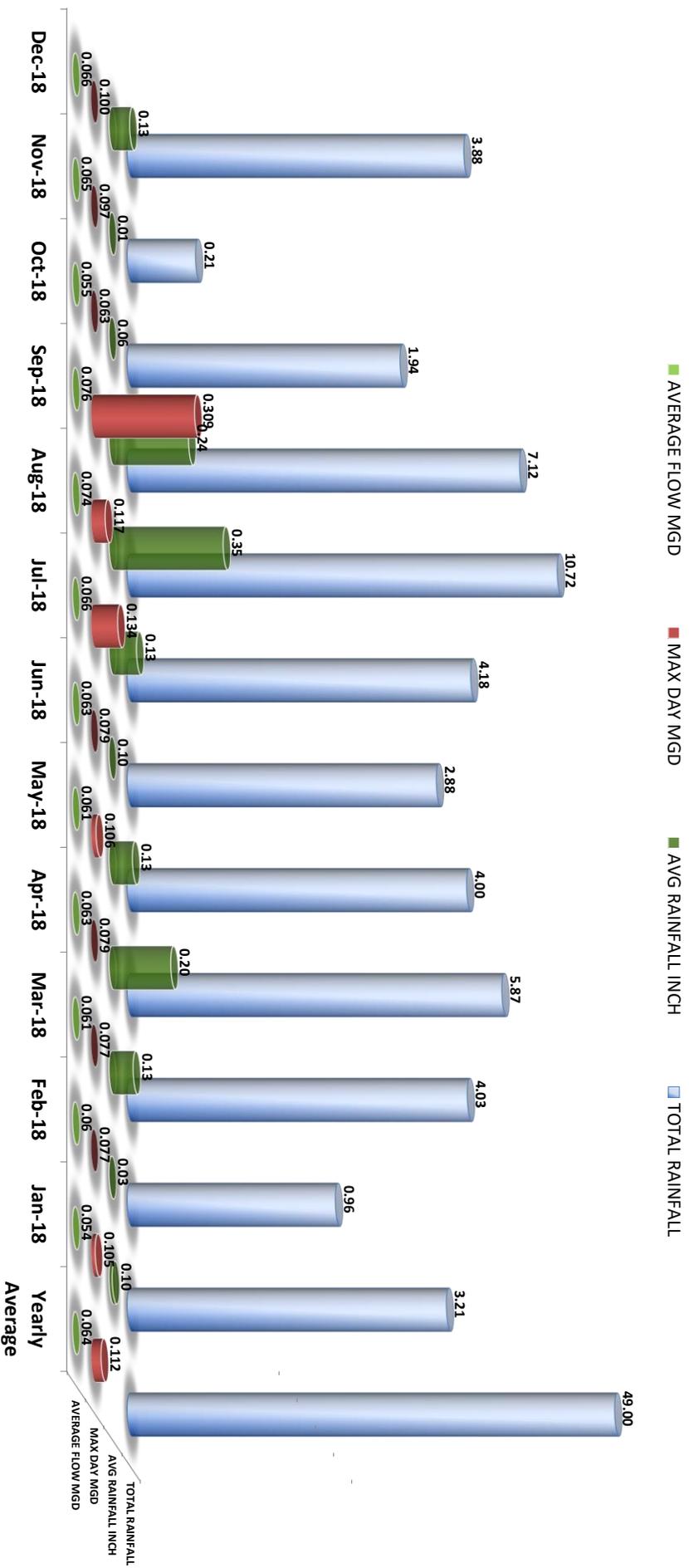
# Piney Green Collection System



Collection System Name: Springdale Wastewater Collection  
System Collection System Grade/ Type Operation: Grade 1/ Domestic  
Responsible Entity: Onslow Water and Sewer Authority (ONWASA)  
Facility Address: Southwest area of Onslow County  
Contact Phone: (910) 937-7509  
Operator in Responsible Charge (ORC): Kenneth M. Padgett  
ORC Type / Grade License: CS Grade 3 License # 999597  
Applicable Collection System Permit Numbers: WQCS00249

Description of Facility: This system consist of eighteen thousand six hundred and seventy seven feet (18,677') of gravity sewer ranging from eight inch (8") to twelve inch (12"), ten thousand four hundred and twenty-four feet (10,424) of force mains ranging from four inch (4") to six inch (6")

# Sprindale Collection System



## **Summerhouse: Summary**

Summerhouse Wastewater Treatment Plant (WWRF) is located at 351 Holly Ridge Rd in Holly Ridge and is currently staffed by three plant operators. The plant has a design capacity of 400,000 gallons per day (MGD). The average flow at the plant in 2018 was 0.082 MGD, which is 21 % of the permitted design flow of the wastewater plant. The facility treated a total of 29,607,866 gallons during the past year; an average of 2,467,322 gallons per month.

### **General Information**

Facility Name: Summerhouse Wastewater Reclamation Facility

Facility Type / Operation: Grade 3 MBR WWRF with High-Rate Infiltration Basins

Responsible Entity: ONWASA

Facility Address: 351 Holly Ridge Rd. Holly Ridge, NC 28445

Contact Phone: (910) 937-7575

Operator in Responsible Charge (ORC): Mike Lutz

ORC Type / Grade License: WW4 #1005688, SI #1004666

Applicable Facility Permit Numbers: WQ0029945

Description of Facility: The Summerhouse WWRF is a 400,000 GPD Non-Discharge facility that utilizes two high rate infiltration basins. The headworks consist of two automated bar screens, and cyclone style grit removal system. Post headworks is an 184,373-gallon aerated equalization basin (EQ). The EQ feeds four MBR trains rated at 100,000 gallons per day each. Currently only two of these trains are operational. The effluent from these trains is disinfected using UV, and a sodium hypochlorite back-up system. Treated effluent is then sent to the infiltration basins located in the Summerhouse housing development. If for some reason disinfection is not operational, or some other factor that affects compliance, the effluent is sent to a lined, 2.4 million gallon upset basin. The contents of the upset basin are sent back through plant for retreatment when conditions allow. Waste sludge from the trains is sent to two 129,400 gallon aerated for further digestion, and eventual land application as a Class B sludge. There is an on-site generator capable of fully powering the plant during power outages automatically.

### **Holly Ridge Collection System**

Collection System Name: Summerhouse Wastewater Collection System

Collection System Grade/ Type Operation: Grade 1/ Domestic Responsible

Entity: Onslow Water and Sewer Authority (ONWASA)

Facility Address: Stump Sound area of Onslow County Summerhouse Subdivision

Contact Phone: (910) 937-7560

Operator in Responsible Charge (ORC): Kenneth M Padgett

ORC Type / Grade License: CS Grade 3 License #999597

Applicable Collection System Permit Numbers: WQCS00249

**2018  
Summerhouse Plant  
Annual WW Report**

**January**

3,019,952 TOTAL GALLONS TREATED  
 0.101 AVERAGE FLOW (MGD)  
 0.132 MAX DAY (MGD)  
 NO **WWTP IN COMPLIANCE**  
 6.6 TOTAL INCHES RAIN FALL  
 3,019,952 GALLONS APPLIED TO PONDS  
 0.101 AVERAGE FLOW (PERMIT FLOW 0.4 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

Exceeded application rate to basin 2

**February**

2,772,597 TOTAL GALLONS TREATED  
 0.099 AVERAGE FLOW (MGD)  
 0.108 MAX DAY (MGD)  
 NO **WWTP IN COMPLIANCE ( Explanation)**  
 4 TOTAL INCHES RAIN FALL  
 2,772,597 GALLONS APPLIED TO PONDS  
 0.099 AVERAGE FLOW (PERMIT FLOW 0.4 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

Exceeded application rate for basin 2

**March**

2,607,403 TOTAL GALLONS TREATED  
 0.086 AVERAGE FLOW (MGD)  
 0.104 MAX DAY (MGD)  
 NO **WWTP IN COMPLIANCE**  
 2.45 TOTAL INCHES RAIN FALL  
 2,607,403 GALLONS APPLIED TO PONDS  
 0.086 AVERAGE FLOW (PERMIT FLOW 0.4 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

Exceeded application rate for basin 2, exceeded daily fecal on the 7th

**April**

2,666,559 TOTAL GALLONS TREATED  
 0.088 AVERAGE FLOW (MGD)  
 0.096 MAX DAY (MGD)  
 NO **WWTP IN COMPLIANCE ( Explanation)**  
 6.58 TOTAL INCHES RAIN FALL  
 2,666,559 GALLONS APPLIED TO PONDS  
 0.088 AVERAGE FLOW (PERMIT FLOW 0.4 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 0 ACRES MOWED

Exceeded daily fecal on the 2nd.

**May**

2,624,829 TOTAL GALLONS TREATED  
 0.087 AVERAGE FLOW (MGD)  
 0.099 MAX DAY (MGD)  
 YES **WWTP IN COMPLIANCE ( Explanation)**  
 7.61 TOTAL INCHES RAIN FALL  
 2,624,829 GALLONS APPLIED TO PONDS  
 0.087 AVERAGE FLOW (PERMIT FLOW 0.4 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 12 ACRES MOWED

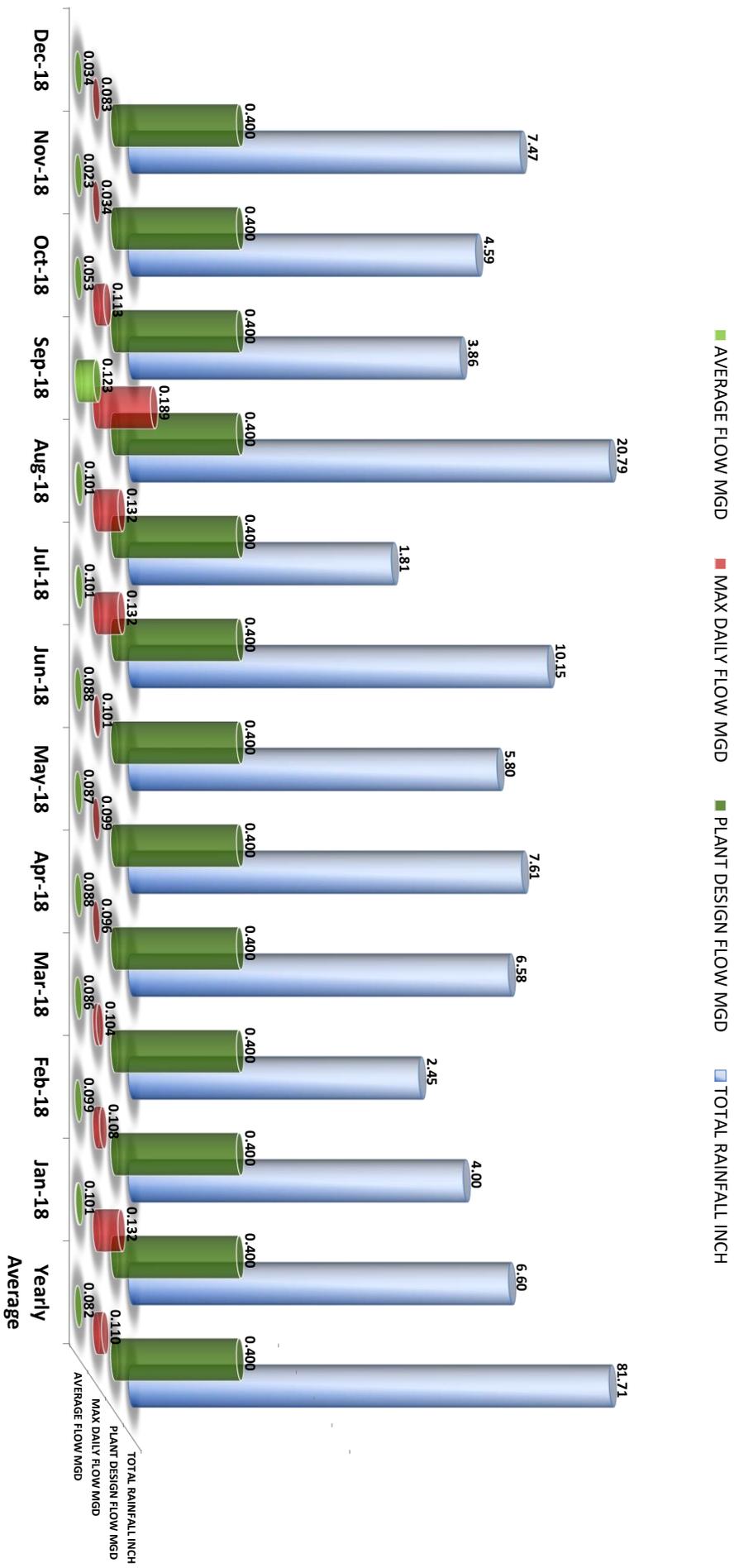
**June**

2,626,565 TOTAL GALLONS TREATED  
 0.088 AVERAGE FLOW (MGD)  
 0.101 MAX DAY (MGD)  
 NO **WWTP IN COMPLIANCE**  
 5.8 TOTAL INCHES RAIN FALL  
 2,626,565 GALLONS APPLIED TO PONDS  
 0.088 AVERAGE FLOW (PERMIT FLOW 0.4 MGD)  
 NO OVERFLOW AT FACILITY?  
 0 COLLECTION SYSTEM PIPE CLEANED  
 0 COLLECTION SYSTEM PIPE VIDEOED  
 NO COLLECTION SYSTEM OVERFLOWS?  
 5 ACRES MOWED

Exceeded monthly limit for Total Phosphorous, also exceed daily application rate for basin 2 on the 27th.

<b>July</b>			
3,144,894	TOTAL GALLONS TREATED		
0.101	AVERAGE FLOW (MGD)		
0.132	MAX DAY (MGD)		
NO	<b>WWTP IN COMPLIANCE</b>	Exceeded daily fecal on the 25th and the 30th. Also exceeded application rate multiple days due to weather.	
10.15	TOTAL INCHES RAIN FALL		
3,144,894	GALLONS APPLIED TO PONDS		
0.101	AVERAGE FLOW (PERMIT FLOW 0.4 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
9.5	ACRES MOWED		
<b>August</b>			
3,038,968	TOTAL GALLONS TREATED		
0.101	AVERAGE FLOW (MGD)		
0.132	MAX DAY (MGD)		
NO	<b>WWTP IN COMPLIANCE ( Explanation)</b>	Exceeded application rate for basin 2	
1.81	TOTAL INCHES RAIN FALL		
3,038,968	GALLONS APPLIED TO PONDS		
0.101	AVERAGE FLOW (PERMIT FLOW 0.4 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
12.5	ACRES MOWED		
<b>September</b>			
3,697,191	TOTAL GALLONS TREATED		
0.123	AVERAGE FLOW (MGD)		
0.189	MAX DAY (MGD)		
NO	<b>WWTP IN COMPLIANCE ( Explanation)</b>	From the 11th to the end of the month the application rate for basin 2 was exceeded. This was due to increased flow rates to alleviate freeboard issues at Hollyridge.	
20.79	TOTAL INCHES RAIN FALL		
3,697,191	GALLONS APPLIED TO PONDS		
0.123	AVERAGE FLOW (PERMIT FLOW 0.4 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>October</b>			
1,656,903	TOTAL GALLONS TREATED		
0.053	AVERAGE FLOW (MGD)		
0.113	MAX DAY (MGD)		
NO	<b>WWTP IN COMPLIANCE ( Explanation)</b>	On 10/17 the daily fecal limit was exceeded. On the 1st and 2nd the application rate for basin 2 was exceeded.	
3.86	TOTAL INCHES RAIN FALL		
1,656,903	GALLONS APPLIED TO PONDS		
0.053	AVERAGE FLOW (PERMIT FLOW 0.4 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>November</b>			
696,472	TOTAL GALLONS TREATED		
0.023	AVERAGE FLOW (MGD)		
0.034	MAX DAY (MGD)		
Yes	<b>WWTP IN COMPLIANCE</b>		
4.59	TOTAL INCHES RAIN FALL		
696,472	GALLONS APPLIED TO PONDS		
0.023	AVERAGE FLOW (PERMIT FLOW 0.4 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
<b>December</b>			
1,055,533	TOTAL GALLONS TREATED		
0.034	AVERAGE FLOW (MGD)		
0.083	MAX DAY (MGD)		
Yes	<b>WWTP IN COMPLIANCE</b>		
7.47	TOTAL INCHES RAIN FALL		
1,055,533	GALLONS APPLIED TO PONDS		
0.034	AVERAGE FLOW (PERMIT FLOW 0.4 MGD)		
NO	OVERFLOW AT FACILITY?		
0	COLLECTION SYSTEM PIPE CLEANED		
0	COLLECTION SYSTEM PIPE VIDEOED		
NO	COLLECTION SYSTEM OVERFLOWS?		
0	ACRES MOWED		
29,607,866	Total Treated		
29,607,866	GALLONS APPLIED TO PONDS	0.00	Total Footage Pipe Cleaned
0.082	Average MG/day treated	0	Total Footage Pipe Videoed
0.082	Average MG/day sprayed	21%	Percentage of design flow
81.71	Total Inches Rainfall		
0.110	Average MAX Flow (MGD)	28%	% of design flow using Max Avg.

# Summerhouse WWTP



## **Swansboro: Summary**

Swansboro Wastewater Treatment Facility is located at 199 Williams Street and currently has two employees. The plant is designed to treat 0.6 Million Gallons per Day (MGD) and is rated a Grade 3 facility. The average daily flow received at the plant in 2018 was 0.412 MGD, which is approximately 69% of the design flow at the wastewater plant. The facility treated a total of 151,008,448 gallons during the year, and average of 12,584,037 gallons per month.

### **General Information**

Facility Name: Swansboro Wastewater Treatment Plant

Facility Type/ Operation: Activated Sludge Extended Air

Responsible Entity: ONWASA

Facility Address: 199 Williams Road Swansboro, NC 28584

Facility Phone: (910) 326-4819

Operator in Responsible Charge (ORC): Michael Lutz

ORC Type / Grade License: WW4

Applicable Facility Permit Numbers: WQ0023261

Description of Facility: The Wastewater Facility is in Swansboro on Williams Road where it was constructed in 1979. A Plant upgrade was completed in July of 2007 and the capacity was increased to .6 MGD. The current plant is equipped with (1) aerated equalization basin, Automatic bar screen and grit removal system, (2) Oxidation ditches, (3) secondary clarifiers, (1) aerobic digester, (1) fine bubble sludge holding tank, (1) return sludge pump station, (1) sludge transfer station, (3) Motor control centers, (2) tertiary filters, (1) triple bank UV light system, (1) effluent pump station, (1) upset pond, and (4) low rate infiltration basins.

### **Swansboro Collection System**

Collection System Name: Town of Swansboro Wastewater Collection System

Collection System Grade/ Type Operation: Grade 2/ Domestic

Responsible Entity: Onslow Water and Sewer Authority (ONWASA)

Facility Address: Town of Swansboro located in the eastern part of Onslow County

Contact Phone: 910-937-7560

Operator in Responsible Charge (ORC): Kenneth M. Padgett

ORC Type / Grade License: CS Grade 3 License # 999597

Applicable Collection System Permit Numbers: WQCS00249

**2018  
Swansboro Plant  
Annual WW Report**

**January**

12,762,906	TOTAL GALLONS TREATED	
0.412	AVERAGE FLOW (MGD)	
0.669	MAX DAY (MGD)	
NO	<b>WWTP IN COMPLIANCE</b>	Exceeded TSS daily limit on the 2nd, and exceeded the daily application limit for the basins on the 29th.
6.46	TOTAL INCHES RAIN FALL	
12,762,906	GALLONS APPLIED TO PONDS	
0.412	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)	
NO	OVERFLOW AT FACILITY?	
0	COLLECTION SYSTEM PIPE CLEANED	
0	COLLECTION SYSTEM PIPE VIDEOED	
NO	COLLECTION SYSTEM OVERFLOWS?	
0	ACRES MOWED	

**February**

10,562,249	TOTAL GALLONS TREATED	
0.377	AVERAGE FLOW (MGD)	
0.521	MAX DAY (MGD)	
YES	<b>WWTP IN COMPLIANCE ( Explanation)</b>	
2.67	TOTAL INCHES RAIN FALL	
10,562,249	GALLONS APPLIED TO PONDS	
0.377	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)	
NO	OVERFLOW AT FACILITY?	
0	COLLECTION SYSTEM PIPE CLEANED	
0	COLLECTION SYSTEM PIPE VIDEOED	
NO	COLLECTION SYSTEM OVERFLOWS?	
0	ACRES MOWED	

**March**

10,944,862	TOTAL GALLONS TREATED	
0.353	AVERAGE FLOW (MGD)	
0.421	MAX DAY (MGD)	
YES	<b>WWTP IN COMPLIANCE</b>	
2.8	TOTAL INCHES RAIN FALL	
10,944,862	GALLONS APPLIED TO PONDS	
0.353	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)	
NO	OVERFLOW AT FACILITY?	
0	COLLECTION SYSTEM PIPE CLEANED	
0	COLLECTION SYSTEM PIPE VIDEOED	
NO	COLLECTION SYSTEM OVERFLOWS?	
5	ACRES MOWED	

**April**

11,211,686	TOTAL GALLONS TREATED	
0.373	AVERAGE FLOW (MGD)	
0.566	MAX DAY (MGD)	
NO	<b>WWTP IN COMPLIANCE ( Explanation)</b>	Exceeded daily fecal limit on the 2nd.
5.5	TOTAL INCHES RAIN FALL	
11,211,686	GALLONS APPLIED TO PONDS	
0.373	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)	
NO	OVERFLOW AT FACILITY?	
0	COLLECTION SYSTEM PIPE CLEANED	
0	COLLECTION SYSTEM PIPE VIDEOED	
NO	COLLECTION SYSTEM OVERFLOWS?	
12	ACRES MOWED	

**May**

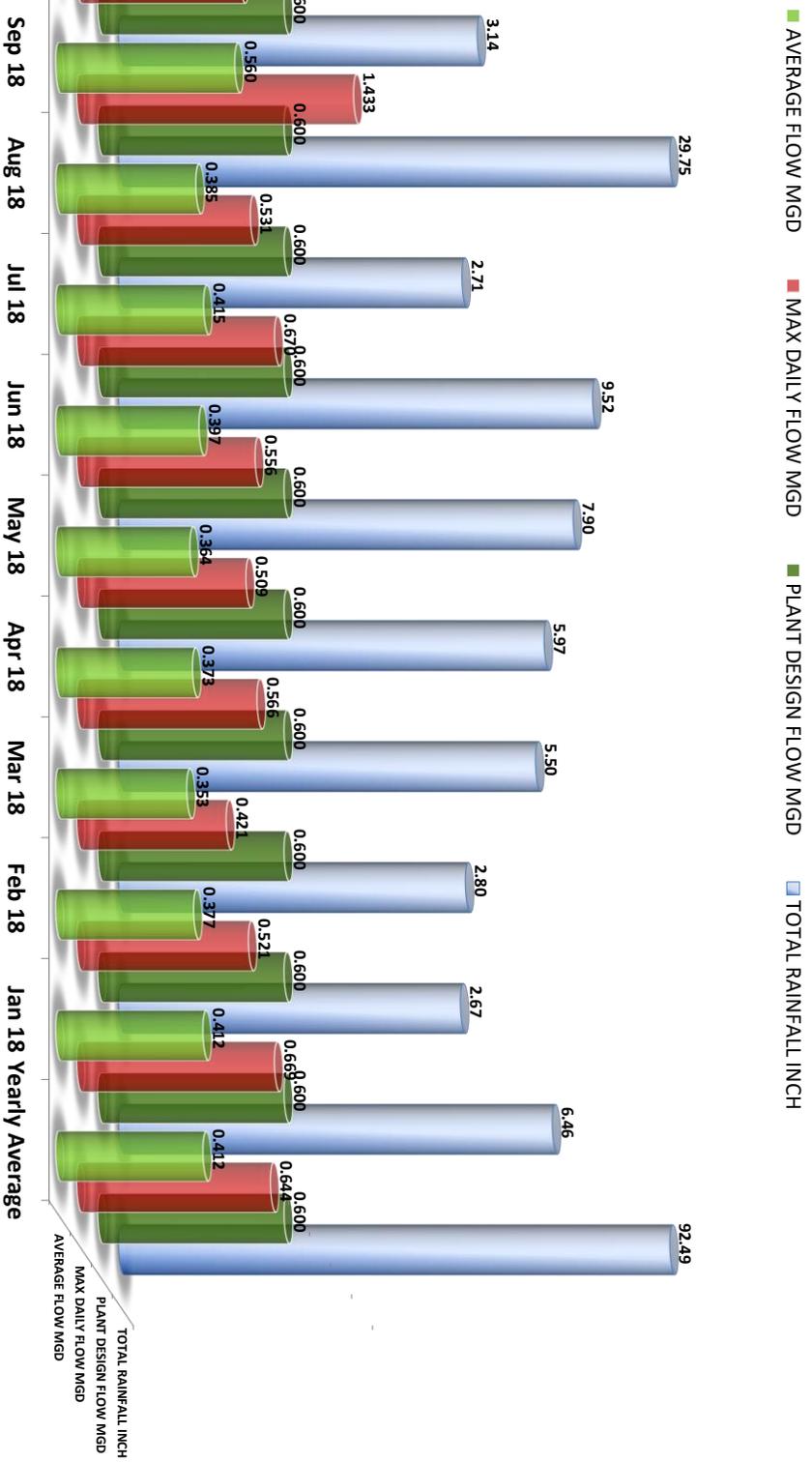
11,269,545	TOTAL GALLONS TREATED	
0.364	AVERAGE FLOW (MGD)	
0.509	MAX DAY (MGD)	
YES	<b>WWTP IN COMPLIANCE ( Explanation)</b>	
5.97	TOTAL INCHES RAIN FALL	
11,269,545	GALLONS APPLIED TO PONDS	
0.364	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)	
NO	OVERFLOW AT FACILITY?	
0	COLLECTION SYSTEM PIPE CLEANED	
0	COLLECTION SYSTEM PIPE VIDEOED	
NO	COLLECTION SYSTEM OVERFLOWS?	
61	ACRES MOWED	

**June**

11,896,273	TOTAL GALLONS TREATED	
0.397	AVERAGE FLOW (MGD)	
0.556	MAX DAY (MGD)	
NO	<b>WWTP IN COMPLIANCE</b>	Exceeded daily Fecal Coliform limit on the 27th.
7.99	TOTAL INCHES RAIN FALL	
11,896,273	GALLONS APPLIED TO PONDS	
0.397	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)	
NO	OVERFLOW AT FACILITY?	
0	COLLECTION SYSTEM PIPE CLEANED	
0	COLLECTION SYSTEM PIPE VIDEOED	
NO	COLLECTION SYSTEM OVERFLOWS?	
22	ACRES MOWED	

<b>July</b>				
12,879,935	TOTAL GALLONS TREATED			
0.415	AVERAGE FLOW (MGD)			
0.670	MAX DAY (MGD)			
NO	<b>WWTP IN COMPLIANCE</b>		Exceeded application rate for infiltration basins on the 30th due to heavy rainfall.	
9.52	TOTAL INCHES RAIN FALL			
12,879,935	GALLONS APPLIED TO PONDS			
0.415	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)			
NO	OVERFLOW AT FACILITY?			
0	COLLECTION SYSTEM PIPE CLEANED			
0	COLLECTION SYSTEM PIPE VIDEOED			
NO	COLLECTION SYSTEM OVERFLOWS?			
37	ACRES MOWED			
<b>August</b>				
11,925,835	TOTAL GALLONS TREATED			
0.385	AVERAGE FLOW (MGD)			
0.531	MAX DAY (MGD)			
NO	<b>WWTP IN COMPLIANCE ( Explanation)</b>		Daily fecal exceedance on the 27th	
2.71	TOTAL INCHES RAIN FALL			
11,925,835	GALLONS APPLIED TO PONDS			
0.385	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)			
NO	OVERFLOW AT FACILITY?			
0	COLLECTION SYSTEM PIPE CLEANED			
0	COLLECTION SYSTEM PIPE VIDEOED			
NO	COLLECTION SYSTEM OVERFLOWS?			
50	ACRES MOWED			
<b>September</b>				
17,331,502	TOTAL GALLONS TREATED			
0.560	AVERAGE FLOW (MGD)			
1.433	MAX DAY (MGD)			
NO	<b>WWTP IN COMPLIANCE ( Explanation)</b>		Exceeded application rate from the 14th to the 19th and again on the 25th. This was due to Hurricane Florance.	
29.75	TOTAL INCHES RAIN FALL			
17,331,502	GALLONS APPLIED TO PONDS			
0.560	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)			
Yes	OVERFLOW AT FACILITY?			
0	COLLECTION SYSTEM PIPE CLEANED			
0	COLLECTION SYSTEM PIPE VIDEOED			
NO	COLLECTION SYSTEM OVERFLOWS?			
0	ACRES MOWED			
<b>October</b>				
11,264,073	TOTAL GALLONS TREATED			
0.363	AVERAGE FLOW (MGD)			
0.481	MAX DAY (MGD)			
Yes	<b>WWTP IN COMPLIANCE ( Explanation)</b>			
3.14	TOTAL INCHES RAIN FALL			
11,264,073	GALLONS APPLIED TO PONDS			
0.363	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)			
NO	OVERFLOW AT FACILITY?			
0	COLLECTION SYSTEM PIPE CLEANED			
0	COLLECTION SYSTEM PIPE VIDEOED			
NO	COLLECTION SYSTEM OVERFLOWS?			
0	ACRES MOWED			
<b>November</b>				
13,564,159	TOTAL GALLONS TREATED			
0.452	AVERAGE FLOW (MGD)			
0.693	MAX DAY (MGD)			
NO	<b>WWTP IN COMPLIANCE</b>		On 11/15 the application rate for all four ponds was exceeded. This was due to heavy rainfall.	
8.43	TOTAL INCHES RAIN FALL			
13,564,159	GALLONS APPLIED TO PONDS			
0.452	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)			
NO	OVERFLOW AT FACILITY?			
0	COLLECTION SYSTEM PIPE CLEANED			
0	COLLECTION SYSTEM PIPE VIDEOED			
NO	COLLECTION SYSTEM OVERFLOWS?			
0	ACRES MOWED			
<b>December</b>				
15,395,423	TOTAL GALLONS TREATED			
0.497	AVERAGE FLOW (MGD)			
0.678	MAX DAY (MGD)			
NO	<b>WWTP IN COMPLIANCE</b>		12/12 Daily limit on fecal exceeded. 12/15&12/21 the application rate for all four ponds exceeded, due to I&I.	
7.64	TOTAL INCHES RAIN FALL			
15,395,423	GALLONS SPRAYED			
0.497	AVERAGE FLOW (PERMIT FLOW 0.6 MGD)			
NO	OVERFLOW AT FACILITY?			
0	COLLECTION SYSTEM PIPE CLEANED			
0	COLLECTION SYSTEM PIPE VIDEOED			
NO	COLLECTION SYSTEM OVERFLOWS?			
0	ACRES MOWED			
151,008,448	Total Treated			
151,008,448	GALLONS APPLIED TO PONDS		0.00	Total Footage Pipe Cleaned
0.412	Average MG/day treated		0	Total Footage Pipe Videoed
0.412	Average MG/day applied to ponds		68.72%	Percentage of design flow
92.58	Total Inches Rainfall			
0.644	Average MAX Flow (MGD)		107%	% of design using Max Avg.

# Swansboro WWTP



TOTAL RAINFALL INCH  
 PLANT DESIGN FLOW MGD  
 MAX DAILY FLOW MGD  
 AVERAGE FLOW MGD