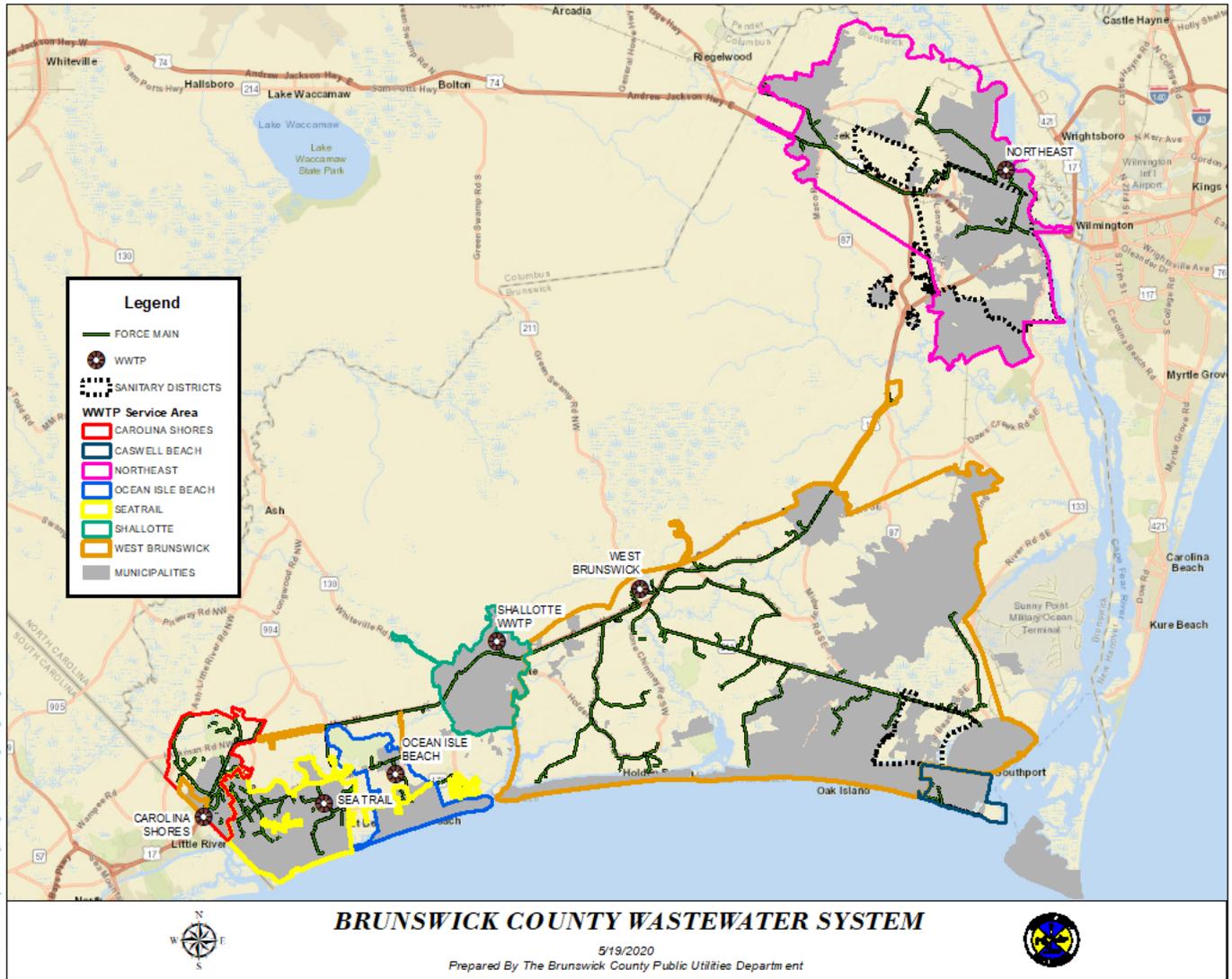


**Brunswick County Public Utilities**  
**Wastewater Collection and Treatment System Annual Report**  
**July 1, 2020, through June 30, 2021**

**System Overview**



**History**

In the late 90s, Brunswick County began operating its first wastewater treatment plant (WWTP) to serve the Leland Industrial Park. Around this same timeframe, many developers constructed small metallic “package” wastewater treatment plants in order to treat wastewater from their individual residential developments. In early 2000, Brunswick County began design and construction of the Northeast Brunswick Regional Water Reclamation Facility located in the Town of Navassa. This project was completed in the summer of 2003 with an initial treatment capacity of 1.65 million gallons per day (MGD). Due to increasing demand for sewer, the Northeast Brunswick Regional Water Reclamation Facility treatment capacity was upgraded to 2.475 million gallons per day in 2013. High residential growth demand in the area served by the Northeast Brunswick Regional WWTP has continued and an additional expansion was needed. In August of 2019, Brunswick County received both a National Pollutant Discharge Elimination System (NPDES) permit renewal and North Carolina Department of Environmental Quality Authorization to Construct for an additional 2.5

MGD upgrade of this facility for a total capacity of 4.975 MGD. This facility provides sewer treatment for Brunswick County, the Town of Leland, the Town of Navassa, the City of Northwest, and residents within Brunswick Regional Water & Sewer H2GO's district (Town of Belville, part of the Town of Leland, and some unincorporated areas). The project is currently under construction and scheduled to be placed in service in January of 2022.

In 2004, Brunswick County acquired assets of the South Brunswick Water and Sewer Authority (SBWASA) and Carolina Blythe Utilities which provided sewer service to communities in the southern part of Brunswick County including the Towns of Calabash and Carolina Shores. Carolina Blythe Utilities' Carolina Shores Wastewater Treatment Plant, originally constructed in the late 1970's, is an extended aeration tertiary treatment plant with a sewer treatment capacity of 530,000 gallons per day. SBWASA's Sea Trail WWTP originally served the Sea Trail development in the Town of Sunset Beach and had a 200,000 gallon per day sewage treatment capacity. In 2007, Brunswick County expanded the treatment capacity of this non-discharge WWTP to 300,000 gallons per day. In 2010, Brunswick County completed construction of a sewer collection system for those areas within the Town of Calabash not yet having sewer service and in 2012 the Sunset Beach sewer system was completed by the County. Both of these sewer collection systems convey wastewater to the Sea Trail WWTP. Since acquiring the aging SBWASA and Carolina Blythe Utilities systems, Brunswick County has made significant improvements to both the sewer treatment facilities and the sewer collection systems. Many of the sewer pump stations contributing sewer flow to these WWTPs have been rehabilitated and significant improvements to both WWTPs have been constructed including flow equalization, diversion pump stations with interconnection force mains, process improvements, and capacity improvements.

The largest of the County's sewer treatment facilities, the West Brunswick Regional Water Reclamation Facility located in Supply, NC, was completed in 2006 to serve the unincorporated areas in central Brunswick County; the Towns of Supply, Bolivia, Holden Beach, St. James; and portions of Shallotte. Once completed, the existing 'package' plants serving Brunswick Community College, Winding River development, and the Town of St. James along with a facultative lagoon serving the Brunswick County Government Complex were taken out of service and all sewer flow was diverted to the new facility. As part of the agreement with the Town of Shallotte, Brunswick County assumed ownership of the Town of Shallotte's WWTP. This WWTP is a facultative lagoon, non-discharge facility with a treatment capacity of 500,000 gallons per day. Due to subsequent piping improvements constructed by Brunswick County, excess flow to the Shallotte WWTP can be diverted to the West Brunswick Regional Water Reclamation Facility. A 3 million gallon/day expansion to the West Brunswick Water Reclamation Facility was completed in 2009 to accommodate sewer treatment for the Town of Oak Island's sewer collection system. This brought the total sewer treatment capacity for the extended aeration tertiary treatment non-discharge facility to 6 million gallons per day. The plant contains a septage receiving station for septic haulers pumping wastewater from septic systems. In 2008, the City of Southport entered an agreement with Brunswick County and subsequently completed a connection to the regional transmission system to convey wastewater to the West Brunswick facility for treatment. An additional agreement with the City of Southport in 2020 allowed them to join the West Brunswick Regional Water Reclamation Facility as a participant in the regional system. As part of the agreement, the City of Southport is funding a .75 MGD treatment plant known as the Mulberry Branch WWTP. The facility will be located on property owned by Brunswick County near the existing Shallotte WWTP. Upon completion of the facility, the total system capacity of the West Brunswick Regional Water Reclamation system will be 7.25 MGD. The Mulberry Branch WWTP is currently under design with construction completion anticipated in the fall of 2023.

Brunswick County and the Town of Ocean Isle Beach reached an agreement in 2012 whereby the Town conveyed the Ocean Isle Beach WWTP to the County. This facility is permitted to treat 1.050 MGD and includes a diversion pump station and force main that allows a monthly average of 0.293 MGD to be transferred to the WBR Facility for treatment.

In November of 2015, the Town of Caswell Beach conveyed its utility system to Brunswick County. The Caswell Beach sewer collection system is a combination of gravity, low pressure, and vacuum systems that conveys wastewater to the Town of Oak Island’s Fish Factory Road WWTP for treatment.

In January of 2020, the City of Northwest conveyed its utility system to Brunswick County. The sewer collection system is a combination of low pressure and vacuum that conveys wastewater to the Northeast Brunswick Regional WWTP.

In July of 2020, the Town of Navassa conveyed its entire utility system (both water and sewer) to Brunswick County. The sewer collection system consists of gravity sewer that conveys wastewater to the Northeast Brunswick Regional WWTP.

Overall, Brunswick County currently operates six wastewater treatment plants with a permitted sewer treatment capacity of 10,855,000 gallons per day. The County provides retail sewer service within the municipalities of Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Sandy Creek, St. James, Navassa, the City of Northwest, Sunset Beach, Varnamtown, and the unincorporated areas of Brunswick County as well as providing wholesale sewer treatment to Holden Beach, Oak Island, Ocean Isle Beach, Shallotte, Southport, and H2GO. The County sewer transmission and collection system consists of 645 miles of force main, gravity, low pressure, and vacuum sewer pipeline; 159 major pump stations; 3,814 manholes; and around 9,099 individual grinder pump stations.



### **Connection Program**

New developments in Brunswick County located in proximity to a sewer line are required to construct sewer collection facilities in the development and all new homes must make connection to these facilities. Existing structures are not

required to make connection to sewer collection systems when new sewer mains are constructed near them; however, property owners that would like to connect to the sewer system have several options available to them:

*Rural Sewer Program* – Allows existing structures adjacent to a high-pressure force main that have failing septic systems to connect to the high-pressure force main using a grinder pump system. Fees for this type of connection are available on the Brunswick County Web site.

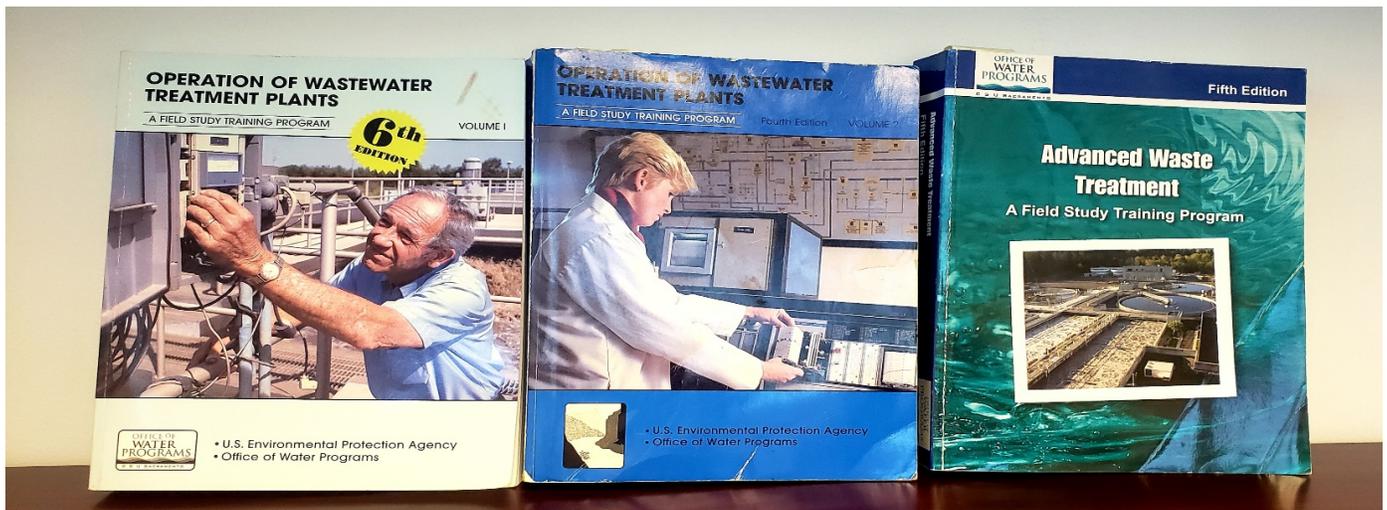
Additional information on this program is available at the Brunswick County Engineering Department located in the County Government Complex (910-253-2500).

### **Staff Training and Certification**

The combination of large diameter, high-pressure sewer force mains, low-pressure sewer grinder systems, vacuum sewer systems, gravity sewer systems, pumping stations, SCADA system, and wastewater treatment plants requires a highly skilled and diverse staff for proper operation and maintenance. Wastewater Collection System and Treatment personnel are certified through the Water Pollution Control System Operators Certification Commission that is governed by North Carolina State law and administered through the North Carolina Department of Environmental Quality (NCDEQ). Brunswick County has 51 dedicated staff members within three divisions to provide operation and maintenance of the system:

- Sewer Collection Division (19) – 15 NCWPCSOCC Certified Operators
- Wastewater Treatment Division (24) - 13 NCWPCSOCC Certified Operators and (6) Certified Maintenance Technicians, 3 Certified Laboratory Technicians
- Instrumentation & Electrical Division (9) - 4 NC Licensed Electricians

To become certified by NCWPCSOCC and to become NC licensed electricians, individuals must meet certain education and experience criteria, complete required coursework, and must pass a State-administered exam. After initial certification, wastewater operators and licensed electricians are required to attend continuing education courses on an annual basis to maintain their certification. Additionally, Brunswick County provides frequent training in other areas: safety, valves, generators, HVAC, system maintenance, regulatory updates, and similar programs related to system operation and maintenance.



### **Laboratory Analysis**

Over 8,000 laboratory tests are performed annually at the West Brunswick Water Reclamation Facility's Lab by certified laboratory staff to ensure compliance with Division of Water Resource's Water Quality Section requirements

and National Pollutant Discharge Elimination System (NPDES) permits. On-site laboratory analysis allows for expedient operational adjustments to ensure efficient operation of the plant to maintain permit limits for the treated water leaving the plants. Brunswick County has an extensive reuse program that requires a high degree of treatment prior to using the treated wastewater (reuse water) for irrigation purposes.



### **Treated Wastewater as a Resource**

Historically, once treated wastewater leaves a wastewater treatment plant it has been discharged into a stream or river. Some of Brunswick County's WWTPs do operate this way, but a larger percentage of our WWTPs have been permitted as non-discharge facilities. Rather than discharging treated wastewater to a stream or river, a non-discharge WWTP uses the highly treated wastewater for large-scale irrigation. The highly treated wastewater is termed "Reuse Water". Brunswick County operates over 25 miles of reuse force mains that supply reuse water for irrigation to eleven golf courses and 1,040 acres of dedicated tree and turf farms at four different locations. Using reuse water for irrigation has several advantages. One major advantage is that in many instances reuse water can be used in lieu of potable water from the County's water system that would have been used for irrigation. This reduces the peak loading on the water system which ultimately reduces costs and helps to stabilize rates. Additionally, using reuse water for irrigation allows golf courses to reduce the amount of fertilizer utilized on the golf course. Golf courses utilizing reuse water for irrigation include those in Sea Trail, Winding River, and St. James.



## **Residuals Management**

The Wastewater Treatment Division oversees the disposal of biosolids from each of the wastewater treatment facilities. In 2020, Brunswick County produced 1,044 dry tons Class-A Biosolids and 75 dry tons of Class-B Biosolids. The biosolids are land-applied as soil amendments on farm fields by the County's residuals contractor. The County is continuing to research additional disposal & treatment alternatives and has recently completed a study on long term Biosolids management.



## **Fiscal Year 2020-2021 Highlights**

- Installation of 606 grinder pump stations in low pressure sewer areas
- Design of the .75 MGD Mulberry Branch WWTP, which will be an expansion of the West Brunswick Regional Water Reclamation system and serve the City of Southport
- Forest Management Plan - timber sales generated \$140,405 in additional revenue
- Rehabilitation of a large regional sewer pump station (Commerce) to include reconfiguring piping, valves, and recoating of the wet well
- Implemented odor control improvements in several problematic areas
- Ongoing construction of the 2.5 MGD expansion at the NEBR WWTP and associated transmission system upgrades

## **Planned Fiscal Year 2021-2022 Capital Improvements**

- Sea Trail WWTP improvements
- Ocean Ridge Reclaimed Water Main
- Finalize permitting, bidding, award and beginning construction of the 0.75 MGD Mulberry Branch WWTP
- Odor Control Replacement at 2 major Pump Stations
- Complete construction and begin compliance testing of the 2.5 MG expansion at the NEBR WRF
- Implementation of ARV and Valve Exercising Program
- Construction of a 250 GPM sewer lift station, associated gravity sewer and force main to serve the International Logistics Park (ILP) located on U.S. 74-76
- Construction of a 600 GPM sewer lift station, associated gravity sewer and force main to serve the Mid-Atlantic Rail Park (MAP) located on U.S. 74-76

**5 Year Forecast:**

- Complete construction and compliance testing of the 0.75 MG plant (Mulberry Branch WWTP)
- Implementation of a Residential Reuse Program
- Completion of Wastewater Masterplan and implementation of recommendations through our CIP or alternative funding sources

**Brunswick County Public Utilities**

**Wastewater Collection and Treatment System Annual Report**

**July 1, 2020, through June 30, 2021**

House Bill 1160, the Clean Water Act of 1999, requires entities that own or operate wastewater treatment and collections facilities in North Carolina to provide customers with an annual performance report. This report is available for viewing at the Brunswick County Public Utilities Operations Center or by logging on to our Web site at [www.brunswickcountync.gov](http://www.brunswickcountync.gov). Customers will be notified of its availability by printed notice on sewer bills. Questions, comments, or requests for paper copies of this report should be directed to the Brunswick County Public Utilities Department at 910-253-2657. This report has been completed by staff of the Utilities Department and is accurate to the best of our knowledge and belief.

**Tim Costin**

Wastewater Collections Superintendent

910-253-2681

**Timothy Webb**

Wastewater Operations Superintendent

910-253-2479



### West Brunswick Water Reclamation Facility

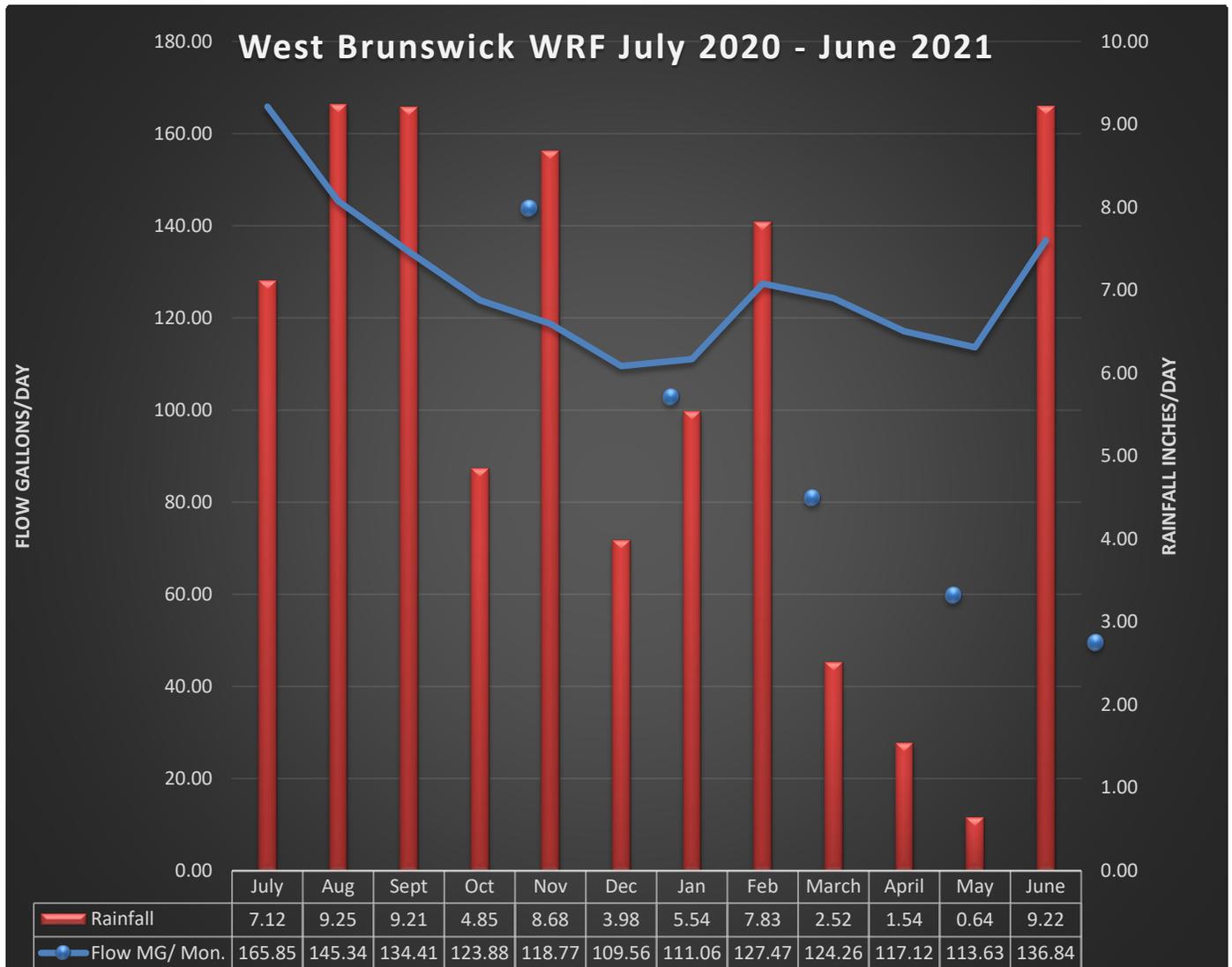
Operator in Responsible Charge: Michael Garrity  
Phone: 910-253-2889  
Permit(s): WQ0023693 (Non-Discharge)

#### Facility Description:

- Permitted Flow: 6.0 million gallons per day
- Treatment Type: Extended Aeration, Tertiary Treatment, Biological Nutrient Removal with Autothermal Thermophilic Aerobic Digestion (ATAD) process for solids handling
- Discharge: Non-Discharge Permit – Reuse water applied to golf courses, infiltration basins, and dedicated tree farm surface irrigation sites

Performance:

Monthly Flow and Rainfall



- Annual Average Daily Flow: 4,190,151 gpd
- Maximum Daily Flow/Date: 7,445,000 gallons February 19, 2021
- Total Annual Flow: 1,528,174,523 gallons
- Total Rainfall: 70.38 inches
- Notice of Violations (NOV's) were received in January (NOV-2021-LV-0223) and February 2021 (NOV-2021-LV-0475). During these months, the facility experienced an inability to dispose of biosolids due to adverse weather conditions. The excess solids within the system caused an exceedance of daily Total Suspended Solids (TSS) limits for both months. The facility also exceeded the monthly limit for TSS in February and exceeded the BOD daily limits.



## Northeast Brunswick Water Reclamation Facility

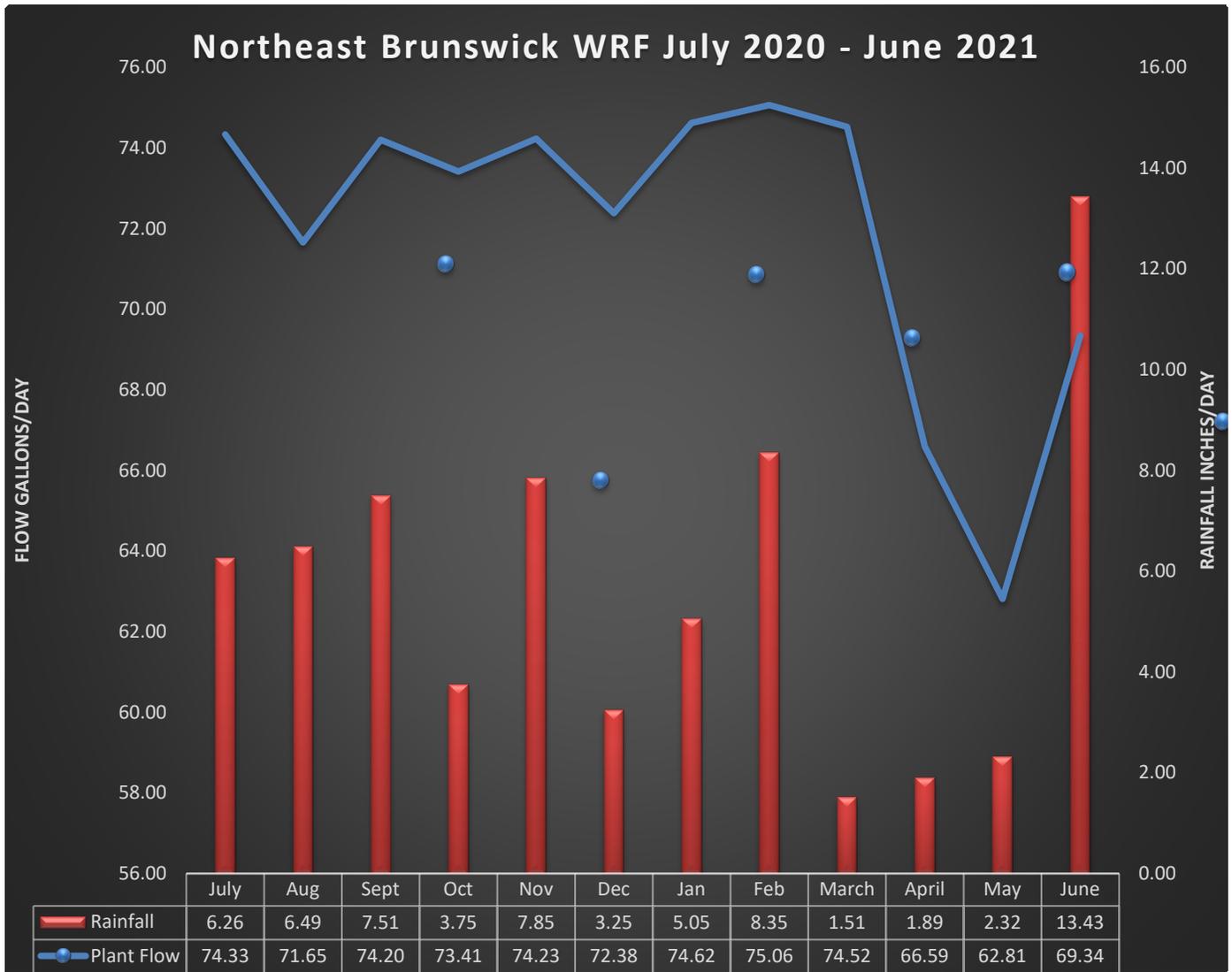
Operator in Responsible Charge: Matthew Henry  
Phone: 910-383-2811  
Permit(s): NC0086819 (Discharge)

### Facility Description:

- Permitted Flow: 2.475 million gallons per day
- Treatment Type: Extended Aeration, Tertiary Treatment, Biological Nutrient Removal with Autothermal Thermophilic Aerobic Digestion (ATAD) process for solids handling
- Discharge: Discharge Permit – Cape Fear River

Performance:

Monthly Flow and Rainfall



- Annual Average Daily Flow: 2,354,516 gpd
- Maximum Daily Flow/Date: 3,680,000 gallons September 17, 2020
- Total Annual Flow: 863,137,000 gallons
- Total Rainfall: 67.66 Inches
- A Notice of Violation (NOV) was received in February 2021 (NOV-2021-LV-0164), the facility exceeded the 4.75 MGD permitted capacity due to excessive rainfall. A NOV was received in April 2021 (NOV-2021-LV-0390) for the facility exceeding the monthly limit for Ammonia Nitrogen (NH3). Staff believes this exceedance was caused by an excessive amount of biosolids within the system. The inability to dispose of biosolids was caused by adverse weather during January and February.



### Ocean Isle Beach Water Reclamation Facility

**Regulated Entity:** Ocean Isle Beach Water Reclamation Facility

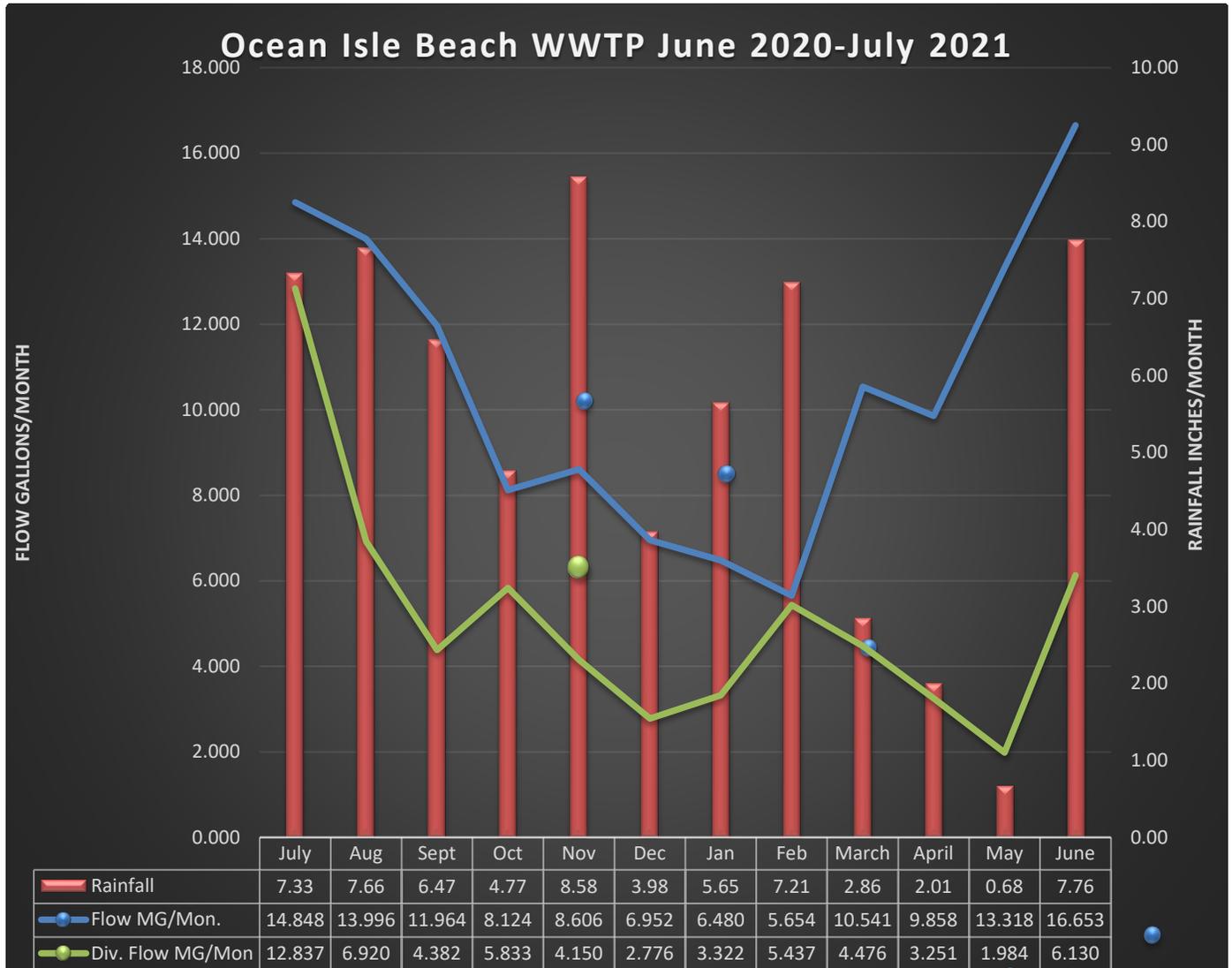
Operator in Responsible Charge: Scott Leonard  
Phone: 910-579-9365  
Permit(s): WQ0006085 (Non-Discharge)

**Facility Description:**

- Permitted Flow: 1.050 million gallons per day
- Treatment Type: Sequencing Batch Reactor
- Discharge: Non-Discharge Permit – Reuse water applied to dedicated tree farm and turf farm surface irrigation sites

**Performance:**

**Monthly Flow, Diversion Flow and Rainfall**



- Annual Average Daily Flow: 347,228 gpd
- Maximum Daily Flow/Date: 804,535 gallons July 3, 2020
- Total Annual Flow: 126,993,776 gallons
- Total Flow Diverted: 61,498,562 gallons
- Rainfall Total: 64.96 inches
  
- No compliance issues were noted for this facility during the reporting period.



## Carolina Shores WWTP

**Regulated Entity:**

**Carolina Shores Wastewater Treatment Plant**

Operator in Responsible Charge:

Aaron Hewett

Phone:

910-579-5323

Permit(s):

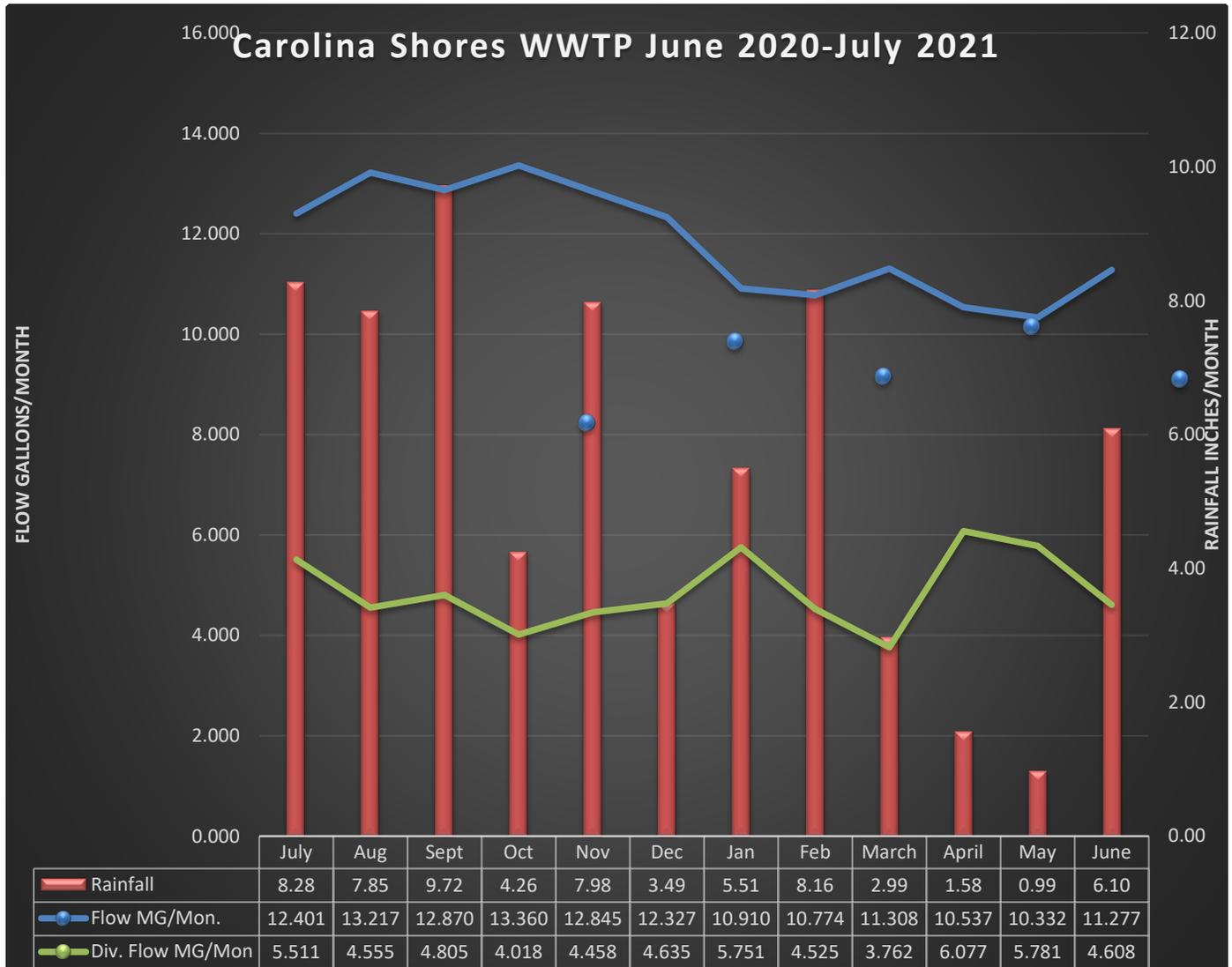
NC0044873 (Discharge)

**Facility Description:**

- Permitted Flow: 0.530 million gallons per day
- Treatment Type: Extended Aeration, Tertiary Treatment
- Discharge: Discharge Permit – Tributary to Persimmon Swamp, Lumber River Basin

Performance:

Monthly Flow, Diversion Flow and Rainfall



- Annual Average Daily Flow: 389,507 gpd
- Maximum Daily Flow/Date: 522,000 gallons December 2, 2020
- Total Annual Flow: 142,158,000 gallons
- Total Flow Diverted: 58,486,570 gallons
- Rainfall Total: 66.91 inches

- No compliance issues were noted for this facility during the reporting period.



## Shallotte WWTP

**Regulated Entity:** Shallotte Wastewater Treatment Plant

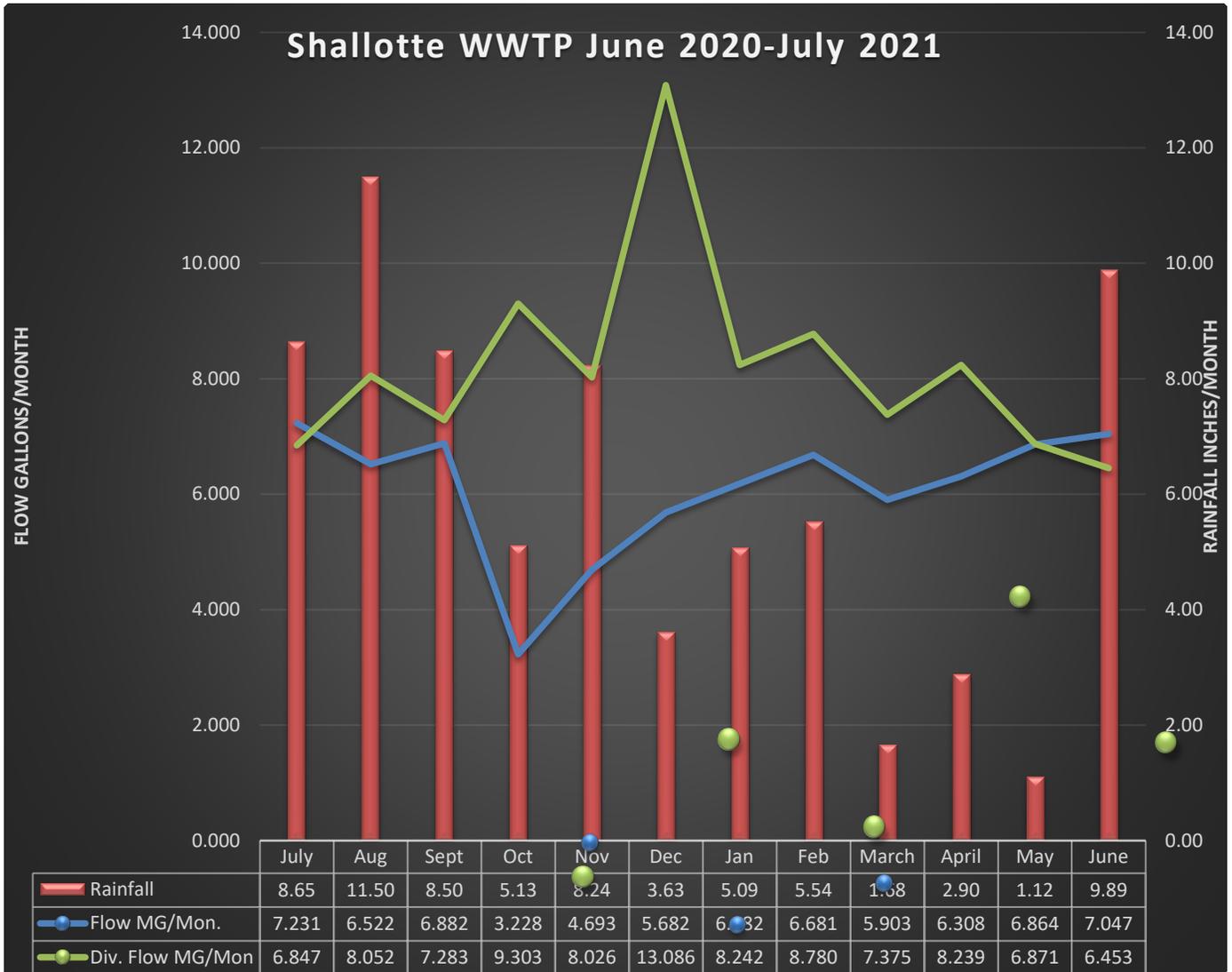
Operator in Responsible Charge: Mike Garrity  
Phone: 910-253-2496  
Permit(s): WQ0000798 (Non-Discharge)

**Facility Description:**

- Permitted Flow: 0.5 million gallons per day
- Treatment Type: Facultative Lagoon
- Discharge: Non-Discharge Permit – Effluent water applied to tree farm surface irrigation sites

**Performance:**

**Monthly Flow, Diversion Flow and Rainfall**



- Annual Average Daily Flow: 200,997 gpd
- Maximum Daily Flow/Date: 521,861 gallons November 12, 2020
- Total Annual Flow: 73,224,169 gallons
- Total Flow Diverted: 98,557,407 gallons
- Total Rainfall 71.87 Inches
  
- No compliance issues were noted for this facility during the reporting period.



## Sea Trail WWTP

**Regulated Entity:** Sea Trail Wastewater Treatment Plant

Operator in Responsible Charge: Clint Humphrey  
Phone: 910-279-9845  
Permit(s): WQ0012748 (Non-Discharge)

**Facility Description:**

- Permitted Flow: 0.3 million gallons per day
- Treatment Type: Extended Aeration, Tertiary Treatment
- Discharge: Non-Discharge Permit – Reuse water applied to Sea Trail golf courses

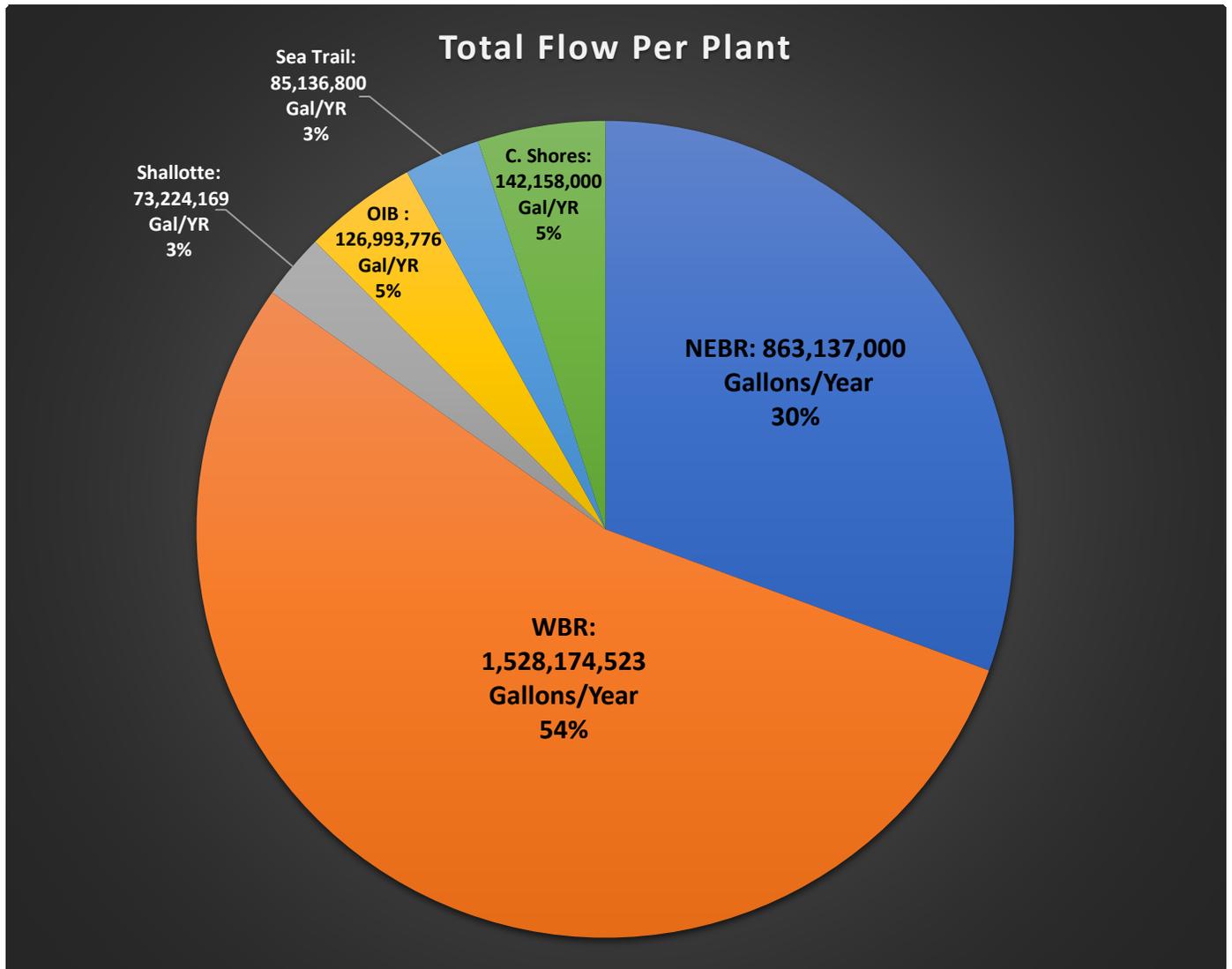
**Performance:**

**Monthly Flow, Diversion Flow and Rainfall**



- Annual Average Daily Flow: 191,523 gpd
- Maximum Daily Flow/Date: 287,000 gallons September 28, 2020
- Total Annual Flow: 67,997,000 gallons
- Total Flow Diverted: 222,564,449 gallons
- Total Rainfall: 72.23 inches
  
- A Notice of Deficiency (NOD) was received in July 2020 (NOD-2020-LV-0177). To correct the deficiency air supply was increased to the treatment process.

# Overall Gallons Treated and Percent Flow/Treatment Plant



# Brunswick County Collection System

**Regulated Entity:** Brunswick County Wastewater Collection System

Operator in Responsible Charge: John Gregory  
 Phone: 910-253-2706  
 Permit(s): WQCS00284

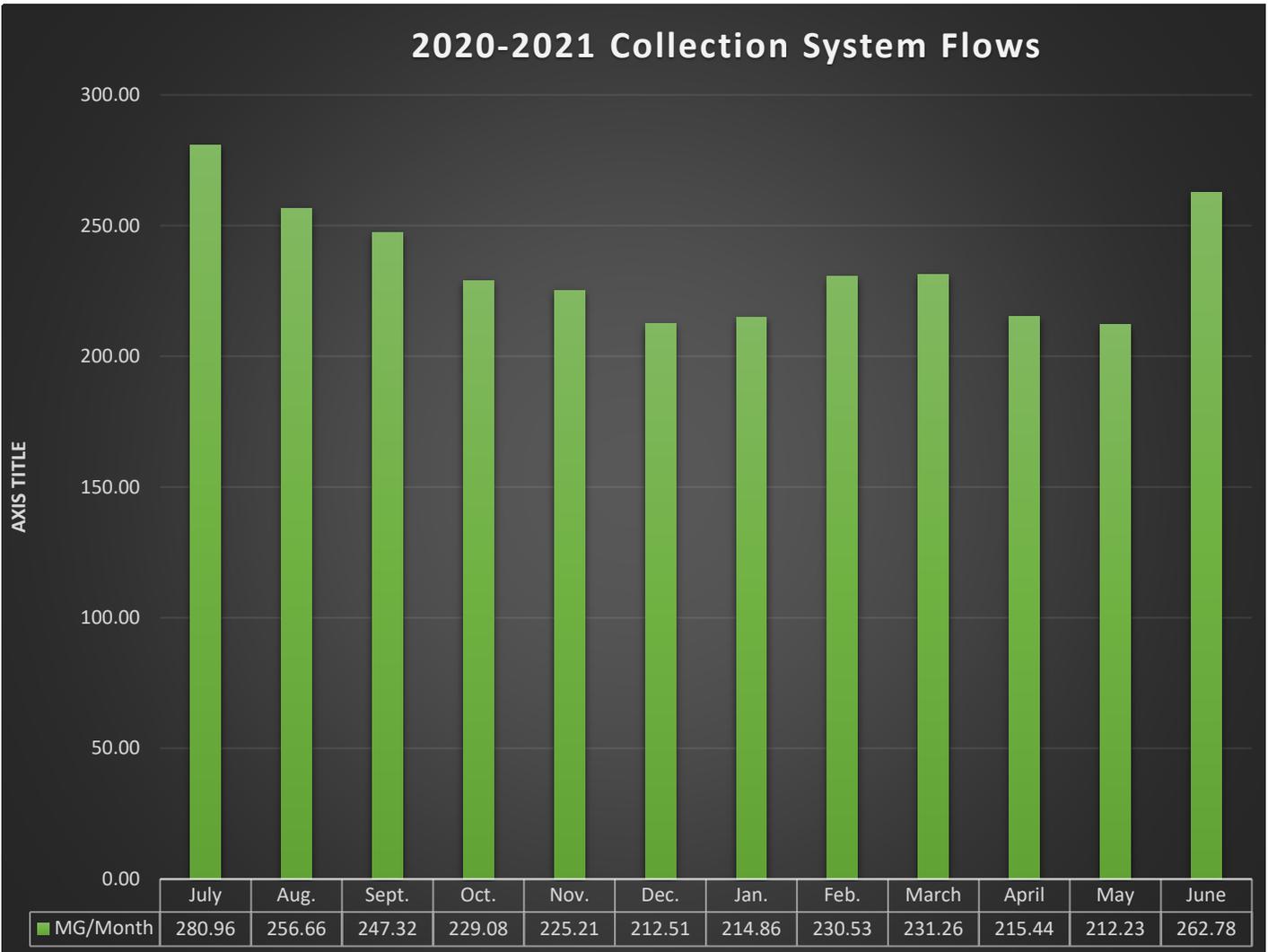
**Facilities Description:**

	<u>Gravity Mains</u>	<u>Low Pressure</u>	<u>Vacuum</u>	<u>Force Main</u>
<b>Miles of Line</b>	154	214	21	256

<u>Facility Type</u>	<u>Total</u>
Traditional Major Pump Stations	159
Vacuum System Stations	3
Low Pressure Grinder Pump Stations	9,099
Manholes	3,814

**Performance:**

Feet of Gravity Line Cleaned & Inspected: 135,270  
 Percentage of Gravity Line Inspected: 10%  
 Number of manholes inspected: 586



### Reportable Sanitary Sewer Overflows

Brunswick County reports Sanitary Sewer Overflows in accordance with North Carolina General Statutes and NCDEQ guidance. Discharges of 1,000 gallons or more of untreated waste to the surface waters of the State require Publication of Notice of Discharge. When Sanitary Sewer Overflows occur, it is standard practice to inspect and remove the source of any blockages; repair, refurbish, and renovate collections facilities; and to clean up and disinfect spill areas.

<u>Date</u>	<u>Location</u>	<u>Volume</u>	<u>Known Environmental Impacts</u>	<u>Corrective Measures Taken</u>
07/09/2020	Near 600 Ocean Isle Beach RD. SW	150,000	None	Transfer pump station was isolated, with valve isolation in both directions, excavated, cut out damaged 14" pipe and replaced. Residual sewer in the area was removed by pumper truck and area was lime stabilized.
07/31/2020	Saltaire Drive/Saltaire Village 483 Deer Path	4,500	None	Station was shut down and valves closed to isolate the break, repairs made with schedule 40 4" pvc pipe, Hymax repair coupling and 2-45 elbows. Residual sewer was removed by pumper truck and the area was lime stabilized.
12/02/2020	7040 Ocean Highway West, Ocean Isle Beach	50,000	None	Flow was diverted away from the affected area; upstream/downstream valves were isolated. Repair was completed by installing new pipe and Hymax repair clamp which took the deflection and strain off the damaged joint. Flow was stopped and residual sewer was removed by pumper truck and area was lime stabilized.
02/25/2021	Calabash Rd. NW near Seneca St. NW	170,000	None	Upstream/downstream valves were isolated to stop flow so that repairs could be made. Full section of pipe (20') was replaced using 8" C900 pipe and 2- 8" Hymax repair clamps. An N.C.D.O.T. drain culvert had been replaced under our 8" PVC force main causing the pipe to sag over time and creating a fracture. Residual sewer was removed with pumper trucks and affected area was lime stabilized.



### **What is a Sanitary Sewer Overflow?**

A sanitary sewer overflow is a condition whereby untreated sewage is discharged prior to reaching sewage treatment facilities. Despite the best efforts of Brunswick County Public Utilities staff, sanitary sewer overflows (SSOs) occur in Brunswick County, just as they do in every other sewer system. The North Carolina Department of Environmental Quality Division of Water Resource's Water Quality Section defines a reportable SSO as any spill to surface waters of 1,000 gallons or more.

### **Causes of Sanitary Sewer Overflows**

The most common cause of SSOs is due to grease deposits blocking sewer pipes resulting in the escape of raw sewage through manholes, sewer clean outs, and other entries into the sewer collection system. Sewer blockages also occur due to foreign objects being dropped into sewers and manholes, the flushing of non-biodegradable materials down the toilet, and the growth of roots into the sewer system piping. Excessive rainfall can also overload the sewer piping systems and pump stations. Additionally, the cutting of sewer mains by contractors and property owners during excavation has become more problematic as Brunswick County becomes more urbanized. SSOs may also occur due to the failure of pipe or other mechanical equipment.

## **What Brunswick County Public Utilities is doing to prevent and reduce Sanitary Sewer Overflows**

All pump stations and plant sites are equipped with a Supervisory Control and Data Analysis (SCADA) system that provides automated reports and high-level alarms to operators tasked with monitoring the sewer system around the clock. Brunswick County staff is available 24 hours per day, 7 days per week to respond quickly to emergencies to prevent SSOs from occurring. Moreover, Brunswick County Public Utilities staff provides daily checks and maintenance to the piping, valves, pump stations, treatment facilities, and other components of the sewer system to minimize failures and maintains generators at each pump station for backup power during outages. Additionally, Brunswick County employs a contractor specializing in televised inspection of sewer mains to analyze at least 10% of its gravity sewer system each year. When repairs and blockages are noted, County staff expeditiously make the needed repairs and maintenance using its wide array of construction equipment, jetting equipment, vacuum truck, and tanker truck. County staff constantly monitors system pressures, capacities, and conditions of the system to make recommendations for needed rehabilitation projects and capital projects to ensure adequate capacity. County staff also routinely mows utility easements to provide accessibility for inspections and repairs. As part of its Fats, Oils, and Grease (FOG) Program, Brunswick County helps to educate customers on the proper disposal of these items to minimize sewer blockages and encourages the public to contact Public Utilities if they see deficiencies or misuse of the sewer system. Additionally, Brunswick County is part of the NC 811 call system ([www.NC811.org](http://www.NC811.org)) that seeks to avoid utility damage due to excavation by the general public and contractors by providing proper notification and utility location services.

## **What You Can Do to Prevent Sanitary Sewer Overflows**

1. Contact Brunswick County Public Utilities if you see a maintenance issue, SSO, or someone misusing the public sewer system.
2. Never pour grease down sink drains or into toilets! Put grease in a disposable container and dispose of in the garbage or recycle where available.
3. Put strainers in kitchen sinks to catch food and debris and empty them into the trash.
4. Put wipes, napkins, cat litter, cotton balls, hygiene products, and latex products into the trash; never flush these down the toilet.
5. Speak with your neighbors about how to keep grease and other materials out of the sewer. Sewer blockages from grease and other foreign materials do not just impact the person putting them down the drain!

## **When an SSO Occurs...**

Through active monitoring, maintenance, repair, staff training, investment, and outreach programs, Brunswick County Public Utilities seeks to be a good steward of the environment; however, even with due diligence, all utilities providing sewer service will experience SSOs from time to time. When an SSO occurs, Brunswick County takes the following corrective actions:

- Notification of the public in accordance with Division of Water Resource's Water Quality Section guidelines
- Remove blockages from piping
- Repair, refurbish, and renovate damaged or inadequate facilities
- Cleanup and disinfection of spill area

- Increase inspection frequency as warranted
- Construct capacity improvements as warranted



# Let's Tackle the Grease in This Kitchen!

## Why should I help?



Do

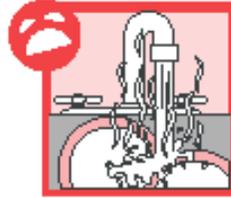


Don't

- Prevent grease buildups from blocking sewer lines.
- Stop sewer overflows into streets and storm drains.
- Reduce the number of times you have to clean your grease trap (food services)
- Save money spent on costly cleanups of sewage spills.
- Protect the quality of our water.



Put oil and grease in covered collection containers.



Don't run water over dishes, pans, fryers, and griddles to wash oil and grease down the drain. Don't rinse off oil and grease with hot water.



Scrape food scraps from dishes into trash cans and garbage bags and dispose of properly. Avoid using your garbage disposal.



Don't pour oil and grease down the drain.



Remove oil and grease from dishes, pans, fryers, and griddles. Cool first before you skim, scrape, or wipe off excess grease.



Don't put food scraps down the drain.



Prewash dishes and pans with cold water before putting them in the dishwasher.



Cover kitchen sink with catch basket and empty into garbage can as needed.



Cover floor drain with fine screen and empty into garbage can as needed.

## More Ways to Tackle Grease

Use environmentally safe cleaning products instead of harsh detergents or cleaners that can damage sewer lines.

If you generate large amounts of used cooking oil, recycle it. To find a recycler, check the phone book under "recyclers" or "rendering companies."

If you generate small amounts of used cooking oil, pour it into a container you can throw away. Never pour it down the drain.

Start a compost pile at your home with scraps that are not meat. Find out about composting in the TCEQ publication, "A Green Guide to Yard Care" (GI-028)

# ¡Combatamos la grasa en esta cocina!

¿Por qué tengo que ayudar?

- Para evitar acumulaciones de grasa que obstruyan las tuberías de desagüe.
- Para impedir los desbordamientos del sistema de alcantarillado.
- Para ahorrar dinero que se gastaría en limpiezas costosas de derrames de alcantarillas.
- Para reducir la frecuencia con que se tienen que limpiar las trampas de grasa (servicio de alimentos).
- Para proteger la calidad de nuestra agua.



**¡HACER!**



**¡NO HACER!**



Poner el aceite y la grasa en recipientes cerrados para su recolección.



No enjuagar platos, ollas, sartenes ni planchas con agua para verter el aceite y la grasa en el desagüe. No enjuagar el aceite ni la grasa con agua caliente.



Quitar las sobras de comida de los trastes, tirarlas en bolsas de basura y desecharlas de la forma debida. Evitar usar el triturador de basura.



No verter aceite ni grasa por el desagüe.



Quitar el aceite y la grasa de los platos, ollas, sartenes y parrillas. Primero enfriar antes de tallar o limpiar el exceso de grasa.



No tirar sobras de comida por el desagüe.



Enjuagar los platos y ollas con agua fría antes de ponerlos en el lavaplatos.



Colocar en el fregadero de la cocina una canasta para depositar los desechos y vaciarla en el bote de basura conforme sea necesario.



Cubrir el desagüe del piso con un cedazo fino y tirarlo en el bote de basura conforme sea necesario.

## Más maneras de combatir la grasa

Use productos de limpieza seguros para el medio ambiente en lugar de detergentes o limpiadores abrasivos que puedan dañar las tuberías de desagüe.

Si genera grandes cantidades de aceite comestible usado, recíclalo. Si desea encontrar un centro de reciclaje, busque en el directorio telefónico bajo "reciclaje".

Si genera pequeñas cantidades de aceite comestible usado, luego viértalo en un recipiente que pueda tirar. No lo vierta nunca en el desagüe.

Empiece a hacer abono en su casa con sobras de alimentos que no contengan carne. Infórmese acerca de la técnica de abonar en la publicación de TCEQ: Una Guía Verde para el Cuidado del Jardín (GI-028).