WASTEWATER COLLECTIONS
AND TREATMENT SYSTEMS
ANNUAL PERFORMANCE REPORT

July 1, 2018 - June 30, 2019

Fayetteville Public Works Commission
Fayetteville Public Works Commission enjoyed another year of truly excellent performance at both of our treatment plants and the collection systems which they serve. Outside of upset conditions during Hurricane Florence, we had no permit exceedances at either treatment plant, which is an extraordinary accomplishment given the myriad of regulatory requirements we must meet. Our plants have been recognized by the NC Department of Environmental Quality as “Exceptionally Performing Facilities.” We had 38 events where sewage was released from the collection system, and these occurrences were mostly due to factors beyond our control or were related to Hurricane Florence. At both the treatment plants and in our sewage collection systems, this is an extremely high level of service and system reliability that we will strive to maintain. The following provides a summary of all collection system overflows and treatment plant permit exceedances.

Collections Systems

General Information

Facility/System Name: Collection System

Responsible Entity: Public Works Commission of the City of Fayetteville, Town of Stedman, NORCRESS, and Kelly Hills/Slocomb Road Water and Sewer District

Person in Charge/Contact: Chris Rainey, PE
(910) 223-4718

Applicable Permit(s): (PWC) WQCS00007, (Stedman) WQCSD0537, (Norcress) WQCS00353

Description of Collection Systems

The following description of collection systems is for the Public Works Commission of the City of Fayetteville and the three permitted entities with which PWC maintains operation and maintenance agreements.

The Public Works Commission of the City of Fayetteville’s sanitary sewer collection system is separated into two basins, the Cross Creek and the Rockfish Creek basins. The collection system consists of approximately 1,292 miles of sewer mains varying in size and material and also includes 74 sewer pumping stations. In addition, 12 privately owned pumping stations are operated and maintained per O & M agreements. Main sizes range from 6” to 60” Wastewater is collected from approximately 85,469 customers in the City of Fayetteville and surrounding Cumberland County area. The PWC serves approximately 21 Industrial, 6 Wholesale, 5,671 Non-Residential, 255 Flat Rate Non-Residential, 71,944 Residential, and 7,503 Flat Rate Residential customers. PWC also provides wastewater service to 83 City of Fayetteville sites and to 15 Public Works Commission sites. The wastewater is conveyed to the Cross Creek and Rockfish Creek Water Reclamation Facilities.

Since March 2001, PWC has operated and maintained the Town of Stedman sanitary sewer system, owned by the Town of Stedman. The system serves approximately 583 customers (516 residential and 67 non-residential) and consists of approximately 22.1 miles of sanitary sewer mains and 4 pumping stations. The wastewater from Stedman is conveyed to the Rockfish Creek Water Reclamation Facility.

In September 2005, PWC began operation and maintenance of the NORCRESS (Wade, Godwin, and Falcon) sanitary sewer system, owned by Cumberland County. The system serves 480 customers (418 residential and 62 non-residential) and consists of approximately 35.3 miles of sanitary sewer mains and 4 pumping stations. The wastewater from NORCRESS is conveyed to the Cross Creek Water Reclamation Facility.

PWC also maintains and operates the Kelly Hills/ Slocomb Road Water & Sewer District sanitary sewer collection system, owned by Cumberland County. The system serves approximately 101 customers (all residential) and consists of approximately 4.5 miles of sanitary sewer mains. The wastewater from Kelly Hills/ Slocomb Road Water & Sewer District is conveyed to the Cross Creek Water Reclamation Facility.
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Public Works Commission of the City of Fayetteville WQCS00007 - Summary of Collections System Performance for Fiscal Year (July 2018 – June 2019)

During the Fiscal Year July 2018 – June 2019, approximately 11.6 billion gallons of wastewater were conveyed to the Cross Creek and Rockfish Creek Water Reclamation Facilities. Sanitary sewer overflows totaling 4,839,740 gallons or .0040% of total gallons conveyed were reported to the NC Department of Environment and Natural Resources, Water Quality Division. Monthly estimates are as follows:

<table>
<thead>
<tr>
<th>Month</th>
<th>Gallons</th>
<th>Month</th>
<th>Gallons</th>
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<tr>
<td>July</td>
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<td>January</td>
<td>7760</td>
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<td>August</td>
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<tr>
<td>December</td>
<td>7865</td>
<td>June</td>
<td>1187</td>
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Public Works Commission Collections System Performance for Fiscal Year (July 2018-June 2019) (continued)

Sanitary sewer overflow events in which volumes exceeding 1,000 gallons overflowed or reached surface waters are included in the monthly estimates and are shown separately as follows:

**Event 1:**  
**Date:** 7/17/18  
**Gallons:** 600

**Location:**  
5466 Yadkin Road

**Description:**  
No active spill was occurring at the time PWC on call personnel arrived on site, but there was evidence in the roadway and curb line of a spill. During evaluation of the spill staff removed manhole cover and sewer exited from the manhole and ran down the roadway/curb line and entered a nearby storm drainage system. Manhole cover was immediately put back in place and ended the spill incident.

**Corrective measures:**  
The sewer main was jet roded to clear the grease blockage and allow the sewer system to resume normal flow. The debris at the spill site was cleaned up and the storm drainage system adjacent to the spill was cleaned and flushed with potable water.

**Event 2:**  
**Date:** 9/15/18  
**Gallons:** 1,117

**Location:**  
5423 Corporation Drive – LS#73
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Description:
This SSO was the result of regional flooding and subsequent power outages related to Hurricane Florence. The lift station continued normal operation during the storm event until upstream flows inundated the lift station.

Corrective measures:
Forecasts called for varying levels of impact from Hurricane Florence. All lift stations were inspected, tested, generators fueled, etc. in preparation for the hurricane. Additional contractor resources, thru various mutual aid groups, were obtained to support the NORCRESS, PWC, and Stedman systems.

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Event 3:  Date: 9/16/18  Gallons: 242,012

Location:
873 Three Wood Drive (Baywood S/D) – LS#14

Description:
This SSO was the result of regional flooding and subsequent power outages related to Hurricane Florence. The lift station continued normal operation during the storm event until upstream flows inundated the lift station.

Corrective measures:
Forecasts called for varying levels of impact from Hurricane Florence. All lift stations were inspected, tested, generators fueled, etc. in preparation for the hurricane. Additional contractor resources, thru various mutual aid groups, were obtained to support the NORCRESS, PWC, and Stedman systems.

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Event 4:  Date: 9/16/2018  Gallons: 13,424

Location:
3395 Dunn Road – LS#88

Description:
This SSO was the result of regional flooding and subsequent power outages related to Hurricane Florence. The lift station continued normal operation during the storm event until upstream flows inundated the lift station.

Corrective measures:
Forecasts called for varying levels of impact from Hurricane Florence. All lift stations were inspected, tested, generators fueled, etc. in preparation for the hurricane. Additional contractor resources, thru various mutual aid groups, were obtained to support the NORCRESS, PWC, and Stedman systems.

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Event 5:  Date: 9/17/2018  Gallons: 950

Location:
407 South King Street (manhole in street)
Description:
This SSO was the result of regional flooding and surcharging of the collection system due to Hurricane Florence.

Corrective measures:
Regional flooding led to elevated river and creek levels, inundating the collection system at this location. Upon flows equalizing and surcharged conditions subsiding the spill incident ended.

Event 6: Date: 9/18/2018 Gallons: 34,515

Location:
4563 Penny Stone Drive

Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18, the Rockfish WWTP partially shut down the influent screw pumps resulting in a surcharged condition in the collection system upstream.

Corrective measures:
Upon flows equalizing at the treatment facility and surcharged conditions subsiding in the upstream collection system the spill incident ended. Wastewater and wastewater residue in and along the roadway was removed and the affected area was treated with lime and odor counteractant.

Event 7: Date: 9/18/18 Gallons: 1,162,975

Location:
4990 Doc Bennett Road

Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18, the Rockfish WWTP partially shut down the influent screw pumps resulting in a surcharged condition in the collection system upstream.

Corrective measures:
Upon flows equalizing at the treatment facility and surcharged conditions subsiding in the upstream collection system the spill incident ended. It was verified that the spill ended by visual inspection on 9/21/18. Wastewater residue was removed from the easement area and the area treated with lime and odor counteractant.

Event 8: Date: 9/18/18 Gallons: 34,230

Location:
4531 Penny Stone Drive
Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18, the Rockfish WWTP partially shut down the influent screw pumps resulting in a surcharged condition in the collection system upstream.

Corrective measures:
Upon flows equalizing at the treatment facility and surcharged conditions subsiding in the upstream collection system the spill incident ended. It was verified by visual inspection that the spill incident ended on 9/20/18. No cleanup was required due to heavy dilution with flood waters.

Event 9:  Date: 9/18/18  Gallons: 1,136,850
Location:
405 Vansory Street

Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18, the Rockfish WWTP partially shut down the influent screw pumps resulting in a surcharged condition in the collection system upstream.

Corrective measures:
Upon flows equalizing at the treatment facility and surcharged conditions subsiding in the upstream collection system the spill incident ended. Wastewater and wastewater residue in and along the roadway was removed and the affected area was treated with lime and odor counteractant.

Event 10:  Date: 9/18/18  Gallons: 1,724,400
Location:
South King Street at Locust Street

Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18 the Cross Creek WWTP was inundated with rainfall. The treatment facility experienced extremely high influent flows which overwhelmed the treatment process, resulting in surcharged conditions in the upstream collection system.

Corrective measures:
Upon flows equalizing at the treatment facility and surcharged conditions subsiding in the upstream collection system the spill incident ended. Spill was determined to be ended on 9/21/18 based on visible inspection. No cleanup was necessary due to the heavy dilution from the flood waters.
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Event 11: Date: 9/18/2018 Gallons: 300

Location:
Rehder Drive @ Trista Lane – manhole in the street

Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18, the Rockfish WWTP partially shut down the influent screw pumps resulting in a surcharged condition in the collection system upstream.

Corrective measures:
Upon flows equalizing at the treatment facility and surcharged conditions subsiding in the upstream collection system the spill incident ended. It was verified by visual inspection that the spill incident ended on 9/18/18. No cleanup was required due to heavy dilution with flood waters.

Event 12: Date: 9/19/2018 Gallons: 4,216

Location:
926 Carver Street – aerial pipe crossing

Description:
Regional flooding and high winds associated with Hurricane Florence resulted in the 12” cast iron aerial pipe crossing being damaged by a falling tree. The falling tree was located adjacent to the sewer easement and fell on top of the aerial crossing during the storm.

Corrective measures:
Combination vacuum/jetter trucks maintained flow levels in the upstream manhole ending the spill incident. The tree was cut and removed from the sewer pipe. The damaged section of main was cut out and replaced with a section of ductile iron pipe and mechanical fittings. No cleanup was required due to the heavy dilution of wastewater with flood waters.

Event 13: Date: 9/19/2018 Gallons: 14,122

Location:
4551 Penny Stone Drive – manhole behind the house

Description:
This SSO was the result of regional flooding due to Hurricane Florence and on 9/18/18, the Rockfish WWTP partially shut down the influent screw pumps resulting in a surcharged condition in the collection system upstream.
Corrective measures:
Upon flows equalizing at the treatment facility and surcharging conditions subsiding in the collection system, the spill incident ended and was verified upon inspection on 9/20/18. No cleanup was required due to the heavy dilution of wastewater with flood waters.

Event 14: Date: 9/19/2018  Gallons: 141,075

Location:
1712 Troy Drive – manhole in the street

Description:
Regional flooding led to elevated river and creek levels, inundating the Neal Street Lift Station #11. The lift station experienced extremely high influent flows which overwhelmed the lift station, resulting in surcharged conditions in the upstream collection system.

Corrective measures:
Upon flows equalizing at the lift station and surcharged conditions subsiding in the upstream collections system, the spill incident ended and was verified by inspection on 9/20/18. No clean up required due to the heavy dilution of wastewater with flood waters.

Event 15: Date: 9/20/2018  Gallons: 418

Location:
4013 East Dale Drive – bypass pumping system at LS#41

Description:
During a site visit by Lift Station personnel, the pipe fitting connection on the bypass hose failed, allowing sewer to exit from the bypass pumping system.

Corrective measures:
Lift Station personnel immediately shut down pumps and isolated a valve ending the spill incident. Wastewater exiting bypass pumping system entered an unnamed tributary and was highly diluted due to elevated flood waters. Wastewater residue was reclaimed and the affected area was treated with lime and odor counteractant.

Event 16: Date: 10/9/2018  Gallons: 32,700

Location:
6828 Willow Court – manhole in easement

Description:
This SSO was the result of a debris blockage. Debris removed was remnants of a recent sewer main rehabilitation project. The contractor had installed a CIPP liner in the sewer main and apparently had left some pieces of cut/scrap liner in the pipe.
Corrective measures:
The sewer main was jet rodded to clear the debris blockage and end the spill incident. Main cleaning, cctv inspections, and manhole inspections began on 10/10/18 and were completed. All debris was removed from the sewer main. Wastewater residue at the spill location was removed and the area treated with lime and odor counteractant.

Event 17: Date: 11/14/2018 Gallons: 840

Location:
6217 Falkland Court – manhole in easement

Description:
This SSO was the result of a root blockage. Due to the extent of the root blockage sanitary sewer exited the manhole in the easement area and went into an adjacent catch basin and then into McPherson Creek.

Corrective measures:
The sewer main was jet rodded to clear the root blockage and end the spill incident. The effected line segment was televised and the remaining roots were mechanically removed. Wastewater entering the drainage system was heavily diluted due to a rainfall event. Wastewater residue was vacuumed/removed from the affected area and the area was treated with lime and odor counteractant. Main cleaning and CCTV inspections upstream and downstream of the spill location began on 11/16/18.

Event 18: Date: 11/19/2018 Gallons: 120

Location:
905 Kensington Park Road – manhole in street

Description:
This SSO was the result of a grease blockage in the sewer main.

Corrective measures:
The sewer main was jet rodded to clear the grease blockage and end the spill incident. Wastewater exiting from the manhole ran down the roadway/curb line and entered a nearby storm drainage system. The affected roadway and storm drain was cleaned and vacuumed to reclaim the wastewater. The affected spill area was also treated with lime and odor counteractant. Main cleaning and CCTV inspections at the spill location began on 11/19/18.

Event 19: Date: 11/26/2018 Gallons: 640

Location:
872 Santiato Drive – manhole in the street
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Description:
This SSO was the result of a grease blockage in the sewer main. There was not an active spill taking place at the time of PWC response to the sight, but there was evidence that a spill had occurred.

Corrective measures:
The sewer main was jet rodded to clear the grease blockage. Wastewater which had exited the manhole had run down the roadway and the curb line and entered into a nearby storm drainage system. The affected roadway and storm drain was cleaned and vacuumed to reclaim the wastewater. The affected area was treated with lime and odor counteractant. Main cleaning and CCTV inspections at the spill location began on 11/29/18.

Event 20:  Date: 12/5/2018  Gallons: 6,750

Location:
2118 Ancon Drive – manhole in the easement

Description:
This SSO was due to vandalism of a manhole and the placement of foreign objects in the manhole.

Corrective measures:
The sewer main was jet rodded in an attempt to clear the debris blockage. Manhole entry was performed to begin removing the foreign materials which were manually placed in the manhole. The removal of the debris ended the spill incident. Wastewater residue was removed from the spill location along with the illegally dumped debris. A locking ring and cover was installed on the manhole to replace the existing ring and cover. The affected spill area was treated with lime and odor counteractant. A police report was created and filed with the local police department.

Event 21:  Date: 12/8/2018  Gallons: 50

Location:
2717 Colgate Drive – manhole in street

Description:
This SSO was caused by debris which was inadvertently deposited in a sewer manhole by a contractor.

Corrective measures:
There was not an active spill at the time that PWC arrived on site, but there was evidence of a spill in the street and the curb line. Inspection of the manhole revealed that asphalt had been introduced into the manhole during recent paving operations by a contractor. Manhole entry was performed to manually remove the asphalt debris while combination vacuum/jetter trucks maintained system sewer flows. The sewer main upstream and downstream of the subject manhole was cleaned after removal of the debris from the manhole. No cleanup was required of the street, curb line, and affected storm drainage system as a winter storm led to significant rainfall at the spill location. The low volume of sewer entering the storm drainage system was heavily diluted by storm water runoff. The sewer main upstream and downstream of the subject manhole was televised on 12/10/18 to confirm that debris removal was complete.
Event 22:  Date: 12/11/2018  Gallons: 600

Location:
416 Robeson Street – manhole in the street

Description:
This SSO was the result of a grease blockage in the sewer main.

Corrective measures:
The sewer main was jet rodded to clear the blockage and end the spill incident. The wastewater exiting from the manhole ran down the roadway/curb line and entered a nearby storm drainage system. The affected area was cleaned and vacuumed to reclaim the wastewater and the storm drain was flushed with potable water. The affected pavement area was also treated with odor counteractant. Main cleaning and CCTV inspections at the spill location began on 12/11/18.

Event 23:  Date: 12/12/18  Gallons: 210

Location:
704 Ellis Street – manhole in street

Description:
This SSO was the result of a grease blockage in the sewer main.

Corrective Measures:
The sewer main was jet rodded to clear the grease blockage and end the spill incident. Wastewater which was exiting from the manhole ran down the roadway and curb line and entered a nearby storm drainage system. The affected roadway was cleaned and vacuumed to reclaim the wastewater. The affected pavement area was treated with odor counteractant. Main cleaning and CCTV inspections at the spill location began on 12/12/18.

Event 24:  Date: 12/13/18  Gallons: 5

Location:
6709 Brookshire Street – PWC cleanout at rear of property

Description:
This SSO was the result of a blockage caused by a contractor working on the PWC sewer main. PWC was called to the location to address a report of a lateral stoppage. Upon arriving at the address it was found that the resident had removed the cleanout cap and there was evidence of a spill present. During PWC’s attempts to hydraulically clear the lateral there was a release from the cleanout due to PWC’s operation. It was determined that the actual cause of the lateral stoppage was the deformities with the recently installed liner in the sewer main.
Corrective Measures:
A recent PWC sewer main rehabilitation project, done by a contractor, led to the main trunk line being lined with a CIPP liner. During the lining process deformities in the liner were present which resulted in a blockage of the service lateral for the subject location. PWC’s rehabilitation contractor responded and corrected the deformities in the liner to resolve the issue. The affected area was treated with lime and odor counteractant.

Event 25:  
Date: 1/3/19  
Gallons: 20  

Location:  
255 Ann Street – sewer main under the new bridge  

Description:  
This SSO was the result of a contractor removing a plug in an existing sewer main as part of the installation of a new section of sewer main. This was a City of Fayetteville contractor working on the Ann Street bridge project.

Corrective Measures:  
Current bridge construction at the subject location required sanitary sewer utilities to be temporarily rerouted to accommodate utility service to the upstream customer. As part of the new bridge construction, the City of Fayetteville contractor installed a casing through the north bridge end bent for the installation of the permanent sanitary sewer main. The contractor removed the sewer plug from the upstream manhole and began installing the permanent piping. Upon partial installation of the piping, wastewater exited from the pipe and end bent casing. The contractor attempted to re-plug the upstream manhole, but was unsuccessful due to a malfunction of the air supply connector. The contractor immediately notified PWC and a crew responded and successfully plugged the line in question at the upstream manhole ending the spill incident.

Event 26:  
Date: 1/20/19  
Gallons: 4,400  

Location:  
3361 Footbridge Lane – manhole in street  

Description:  
This SSO was the result of a grease blockage in the sewer main.

Corrective Measures:  
The sewer main was jet rodded to clear the grease blockage and end the spill incident. Wastewater existing from the manhole ran down the roadway and the curb line and entered a nearby storm drainage system. The affected roadway was cleaned and vacuumed to remove the wastewater and the affected storm drain nearest the discharge location was cleaned to remove the wastewater residue. Main cleaning and CCTV inspections at the spill location began on 1/22/19.
Event 27:  
Date: 1/20/19  
Gallons: 2,150

Location:  
3310 South Peak Drive – manhole outside pavement

Description:  
This SSO was discovered while PWC maintenance personnel were working to stop a nearby SSO and clear that blockage. The grease from the initial blockage was broken loose when it was cleared and the grease went to the nearby lift station and clogged the pumps resulting in a high well alarm.

Corrective Measures:  
A combination vacuum/jetter truck maintained the lift station wet well until the pumps could be unclogged and made operational again. PWC staff discovered the overflowing manhole during their transit to decant liquid from their debris body from the initial SSO on Footbridge Lane. The overflowing manhole is the discharge manhole for the force main from the lift station in question. The overflow occurred twice during the incident period, of which both times staff immediately contacted the PWC lift station staff to have them stop the lift station pumps ending the spill incident. It was determined that both pumps were simultaneously in operation to address the high well alarm at the station. Running both pumps simultaneously overwhelmed the downstream gravity sewer and resulted in the overflow. When it was discovered that the manual operation of the pumps was causing the overflow the lift station staff reduced pumping to a single pump allowing the downstream collection system to return to normal flow. Wastewater exited from the manhole and ran down the roadway/curb line and entered a nearby storm drainage system. The affected area was treated with lime and odor counteractant. Main cleaning and CCTV inspections at the spill location began on 1/22/19.

Event 28:  
Date: 2/13/19  
Gallons: 4,988

Location:  
3200 Natal Street – manholes behind industry

Description:  
This SSO was caused by grease and debris blockages in the sewer main.

Corrective Measures:  
The sewer main was jet rodded to clear the grease and debris blockage and end the spill incident. At the time of the spill there were five consecutive manholes overflowing. Two of the manholes were PWC owned and three were owned by the private industry. Wastewater exited from all five manholes and some of the wastewater was contained to the driveway and an adjacent grassy area. Some of the wastewater was able to reach a drainage swell and run to a private pond. All of the wastewater exiting the manholes was heavily diluted due to a rainfall event on 2/12/19. Wastewater was observed at all of the low lying areas in the spill location. All areas of ponding wastewater were vacuumed to reclaim the wastewater and the areas treated with lime and odor counteractant. Main cleaning and CCTV inspections were completed.
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**Event 29:**

**Date:** 03/06/19  
**Gallons:** 8,250

**Location:**

705 Robeson Street – manhole in easement on creek bank

**Description:**

PWC maintenance staff was replacing a section of 18” cast iron aerial sewer pipe while the line segment was under bypass. During the bypass operation, the air connection port on the sewer plug failed allowing the air to escape and deflate the plug.

**Corrective Measures:**

PWC personnel stationed at the suction manhole identified the malfunction immediately and implemented pump and haul operations until the air connection port could be replaced. Once the fitting was replaced and the plug re-inflated the incident ended. Wastewater exited from the manhole around the new piping which was being installed. Once the aerial crossing pipe was installed the plug and the bypass system were removed and the flow returned to normal.

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**Event 30:**

**Date:** 3/19/19  
**Gallons:** 2,340

**Location:**

714 Westmont Drive – manhole in street and customer cleanout

**Description:**

This SSO was caused by debris in the sewer line.

**Corrective Measures:**

The sewer main was jet rodded to clear the debris blockage and end the spill incident. Wastewater exiting from the manhole and the customer’s cleanout entered the storm drainage system immediately discharging to a drainage tributary. Wastewater and waste residue in the roadway and the customer’s yard has been removed and the areas cleaned up. The wastewater in the short span of the storm drainage system has been reclaimed. The affected areas were treated with lime and odor counteractant. Main cleaning and CCTV inspections upstream and downstream of the spill location began on 3/19/19. Misaligned pipe joints which were discovered during CCTV inspection will be evaluated and corrected promptly.

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**Event 31:**

**Date:** 3/22/19  
**Gallons:** 900

**Location:**

2536 Tracy Hall Road - 54” aerial pipe crossing entering reclamation facility

**Description:**

This SSO was caused by the WWTP being taken offline for an inspection of the influent grit chamber. In order to complete that task and for the safety of the dive team both influent screw pumps were shut down around 9:53am. At around 10:10am PWC staff identified drips at three pipe joints during a routine inspection of the aerial crossing which was unrelated to the WWTP work.
Corrective Measures:
Upon identifying the leaks, field personnel opened the upstream and downstream manholes and noticed surcharging conditions were present. WWTP staff was notified of the incident and they advised WRC staff of what was going on at the plant with the shutdown. WWTP staff turned the screw pumps back on around 10:31am and field staff verified that the leakage had ended around 11:10am. Upstream and downstream manholes were revisited to verify that the surcharge conditions had ended. No cleanup was required as wastewater exiting pipe joints made direct contact with actively moving groundwater immediately entering Rockfish Creek.

Event 32:  
Date: 3/28/19  
Gallons: 150

Location:  
1812 Conover Drive – manhole in street

Description:
The PWC lateral lining contractor was installing lateral liners along Conover Drive. As part of the process, a “packing/launch rig” is inserted into the collector main via sewer manholes. The rig is maneuvered into position at the service connections to begin the insertion process. Once positioned the packer is inflated to protect the liner and the resin. The packer has flow thru capabilities; however it is not ideal for high flow conditions. As a result, the collections system surcharged and wastewater exited from a manhole in the street.

Corrective Measures:
A PWC project inspector arrived at the work site around 11:45am and parked near the subject manhole; at the time of his arrival there was not a spill occurring. The inspector walked to the contractor’s work location, spoke with the contractor, and returned to his vehicle to complete paperwork. Upon his return to the vehicle, he noticed that wastewater was exiting the manhole. He immediately made contact with the contractor requesting that the packer unit be deflated. During this time period other construction activity in/near the work zone was occurring. Water Distribution personnel were flushing a nearby hydrant due to a water quality issue. The hydrant was opened around 10:30am and was closed around 12:30pm. Wastewater exiting the manhole mixed with the flushing runoff at its point of entry to the storm drain, heavily diluting the wastewater. The contactor immediately deflated the packer unit ending the spill incident. The pavement and curb line were cleaned to remove wastewater residue. No cleanup of the storm drainage was performed since the wastewater was heavily diluted with potable water from the flushing operation.

Event 33:  
Date: 4/10/19  
Gallons: 15

Location:  
5744 Waters Edge Drive – PWC cleanout at the edge of the lake

Description:
This SSO was caused by a third party septic contractor. The contractor contacted PWC requesting assistance with a service lateral blockage. Upon arrival PWC staff discovered that the plumber had removed the PWC cleanout cap resulting in a sewer release.
Corrective Measures:
The contractor entered the customer's cleanout with a "blow bag" and had also entered the PWC cleanout with a rodding machine which resulted in the sewer release. PWC asked the contractor to stop their operations and when they did the spill ended. PWC staff took over the operation and cleared the stoppage from the service line. The stoppage was actually on the customer's side of the service.

Event 34: 
Date: 4/12/19 
Gallons: 75

Location:  
5426 Osage Court - sewer lateral in rear of property at drainage corridor

Description:  
A plumbing company notified PWC of a service lateral blockage with potential damage to the lateral piping. Upon PWC response and evaluation of the issue, it was determined that the City of Fayetteville storm drainage installation project caused a separation of the service lateral from the sewer main. This resulted in a sewer release during the plumber’s attempts to clear the blockage.

Corrective Measures:  
PWC on call personnel responded immediately to assist the plumber in evaluating the issue and providing a temporary fix until a permanent, corrective action could be completed by the City’s contractor. Due to conflicts with the newly installed storm drainage, PWC staff installed a temporary holding tank immediately behind the residence and implemented pump and haul measures. The pump and haul system was in place until the permanent repair could be completed by the City contractor.

Event 35: 
Date: 4/22/19 
Gallons: 10,200

Location:  
5350 Silver Pine Drive - manholes in easement area

Description:  
This SSO was caused by vandalism of the sewer system. A manhole cover was removed and debris placed into the manhole. The debris included logs, sticks, a cooler, and other miscellaneous trash.

Corrective Measures:  
The sewer main was jet rodded to clear the blockage and end the spill incident. Manhole entry was performed to remove the vandalism materials. Main cleaning and CCTV inspections to verify debris removal were completed on 4/24/19. Locking rings and covers were installed on 4/22/19 to prevent access by the vandals. The wastewater residue was removed from the spill location and the area treated with lime and odor counteractant. A police report was completed and is on file.
2018-2019 WASTEWATER COLLECTIONS AND TREATMENT SYSTEMS
ANNUAL PERFORMANCE REPORT

Event 36: Date: 6/4/19 Gallons: 4

Location: 234 Green Street – manhole behind the church playground in creek bank

Description: This SSO was discovered during routine inspections of the collections system. It was identified that wastewater was seeping thru the cracks in the manhole wall. The subject manhole and 18” aerial crossing were structurally evaluated after Hurricane Matthew and Hurricane Florence. During the evaluations there was creek bank erosion that was deemed to be significant enough to warrant replacement/relocation of the existing manhole and aerial crossing. Engineering design has been completed and the preconstruction conference was held on 6/5/19.

Corrective Measures: PWC staff responded and sealed the leaking areas on the manhole. The seal was placed on the exterior and interior of the manhole. No cleanup was required since the volume of the spill was so low.

Event 37: Date: 6/26/19 Gallons: 1,150

Location: 3609 Ridgecrest Avenue – manhole in the street

Description: This SSO was caused by the bypass pump running out of fuel on a PWC sewer rehabilitation project. The contractor was installing a liner in an 18” gravity sewer main. As part of the process a sewer bypass system was set up to bypass flows from the smaller collector main and was being maintained by the contractor. During the operation a contractor employee noticed sewer exiting from a manhole and immediately called the PWC project coordinator over that project.

Corrective Measures: The contractor’s staff responded to the SSO and began evaluating what had caused the over flow. It was determined that the bypass pump had run out of fuel. Due to the pump being out of fuel the collection system surcharged and a spill occurred. The contractor had the pump vendor send the fuel truck to the site to fuel the pump back up. Once fueled the pump was started back up and the spill incident ended. The wastewater exiting the manhole entered a nearby storm drainage system, which discharged into a wet drainage ditch. The pavement area, curb line, and the affected storm drains were cleaned to remove wastewater residue. All liquid, wastewater, and groundwater were vacuumed/reclaimed from the wet drainage ditch. Due to the natural erosion of the drainage ditch a ponding area had been created in the channel allowing for full containment of the wastewater.
2018-2019 WASTEWATER COLLECTIONS AND TREATMENT SYSTEMS ANNUAL PERFORMANCE REPORT

Town of Stedman WQCS0537 - Summary of Collections System Performance for Fiscal Year (July 2018 – June 2019)

During the Fiscal Year July 2018 – June 2019, approximately 46.6 million gallons of wastewater were conveyed to the PWC collection system and treated at the Rockfish Creek Water Reclamation Facility. There were not any reportable sanitary sewer overflows reported to the NC Department of Environment and Natural Resources, Water Quality Division.

NORCRESS WQCS00353 - Summary of Collections System Performance for Fiscal Year (July 2018 – June 2019)

During the Fiscal Year July 2018 – June 2019, approximately 49.2 million gallons of wastewater were conveyed to the PWC collection system and treated at the Cross Creek Water Reclamation Facility. There were not any reportable sanitary sewer overflows reported to the NC Department of Environment and Natural Resources, Water Quality Division.

Kelly Hills - Summary of Collections System Performance for Fiscal Year (July 2018 – June 2019)

During the Fiscal Year July 2018 – June 2019, approximately 1.3 million gallons of wastewater were conveyed to the PWC collection system and treated at the Cross Creek Water Reclamation Facility. No reportable sanitary sewer overflows were reported to the NC Department of Environment and Natural Resources, Water Quality Division.

Note: Copies of sanitary sewer overflows are on file at the Public Works Commission’s Water Resources Construction Department located at 955 Old Wilmington Road.

Treatment Systems

General Information

Facility/System Name: Cross Creek Water Reclamation Facility

Responsible Entity: Public Works Commission of the City of Fayetteville

Persons in Charge/Contact: Michael Scott McCoy, Facilities Supervisor (910) 223-4757
Wendell “Chuck” Baxley, Facilities Manager (910) 223-4701

Applicable Permit(s): NPDES NC0023957
WQ0000527
NCGNE1080

Fayetteville Public Works Commission
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Description of Treatment Process
The Cross Creek facility is permitted to process 25 million gallons per day (MGD) of wastewater. The treatment processes consist of an influent pump station, mechanical bar screens, grit removal, primary clarification, activated sludge system with nitrification, secondary clarification, filtration, disinfection, and de-chlorination. Biosolids generated by these processes are stabilized through anaerobic digestion and recycled as a fertilizer and soil conditioner to various land application sites.

Summary of Treatment System Performance for Fiscal Year (July 2018 – June 2019)
The Cross Creek Water Reclamation Facility consistently met all permit requirements in the fiscal year except for the upset conditions during and immediately following Hurricane Florence. Hurricane Florence produced extreme flooding, multiple power outages and unprecedented plant flows in the Cumberland County Region. Below are the non-compliance issues experienced due to the natural disaster.

1. Monthly average violation on ammonia due to upset conditions during extreme flow event.
2. Weekly (9/16-9/20/18) average violation on CBOD5 due to upset conditions during extreme flow event.
3. Failure to meet daily average of not less than 5.0 mg/l on D.O. on 9/18/18.

Treatment Systems

General Information
Facility/System Name: Rockfish Creek Water Reclamation Facility
Responsible Entity: Public Works Commission of the City of Fayetteville
Persons in Charge/Contact: Michael Scott McCoy, Facilities Supervisor (910) 223-4757
Wendell “Chuck” Baxley, Facilities Manager (910) 223-4701
Applicable Permit(s): NPDES NC0050105
WQ0000527
NCGNE061

Description of Treatment Process
The Rockfish Creek facility is permitted to process 21 million gallons per day (MGD) of wastewater. The treatment processes consist of an influent pump station, mechanical bar screens, grit removal, activated sludge system with nitrification, secondary clarification, filtration, disinfection and de-chlorination. Biosolids generated by these processes are stabilized through aerobic digestion and recycled as a fertilizer and soil conditioner to various land application sites.
2017-2018 WASTEWATER COLLECTIONS AND TREATMENT SYSTEMS
ANNUAL PERFORMANCE REPORT

Summary of Treatment System Performance for Fiscal Year (July 2018 – June 2019)
The Rockfish Creek Water Reclamation Facility consistently met all permit requirements in the fiscal year except for the upset conditions during and immediately following Hurricane Florence. Hurricane Florence produced extreme flooding, multiple power outages and unprecedented plant flows in the Cumberland County Region. Below are the non-compliance issues experienced due to the natural disaster.

1. Weekly (9/16-9/20/18) average violation on CBOD5, fecal and ammonia due to upset conditions during extreme flow event.
2. Failure to meet daily average of not less than 6.0 mg/l on D.O. on 9/17-9/24/18 due to extreme flow event.
3. Monthly average on ammonia due to extreme flow event.

Notification and Certification

Prevention

During the time from July 2018 - June 2019, PWC made the following efforts to reduce overflows as associated with grease:

- Conducted a public information campaign that included radio & television advertising; information in quarterly customer newsletter; and several customer targeted messages about proper grease and wipes disposal.
- Provided approximately 1500 "Fat Trapper" grease disposal containers to customers as part of "Cease the Grease" Education program.
- Conducted priority cleaning and rehabilitation of “targeted problem” sewer lines.
- Conducted 12 phone broadcasts targeted to customers in identified grease problem areas.

Notification

The report shall be available on the Fayetteville Public Works Commission’s web site (www.faypwc.com) and at the PWC Communications/Community Relations Office (910-223-4009). A statement of availability will be included in customers’ billing.

Certification

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify this report has been made available to the users or customers of the named system and those users have been notified of its availability.

M. J. Noland
Chief Operating Officer-Water Resources Division
Fayetteville Public Works Commission

8/20/19