

On 9/21/16, I, Investigator Ammon Fisher, of the Florida Fish and Wildlife Conservation Commission, was directed to open an investigation regarding possible waste water discharges violations by the City of St Petersburg. This investigation was done in parallel with the investigation by RAC Daniel Green, U.S. EPA-CID and Trial Attorney Chris Hunter, U.S. DOJ.

On September 15th 2016, Craven Askew, having filed for Federal whistleblower status, came forward with allegations of criminal acts by the City of St Petersburg. Askew is the Chief Operator of the City's south east plant. Askew has made public his concerns regarding the closing of the Albert Whitted Wastewater Reclamation Facility (AWWRF) that he believes caused the City to need to discharge wastewater during the heavy rain events.

The City owns and operates 4 different waste water treatment plants and a City wide reclaimed water distribution system.

Albert Whitted Water Reclamation Facility (AWWRF)	601 8 th Ave. S.E.
Northeast Water Reclamation Facility (NEWRF)	1160 62 nd Ave. N.E.
Northwest Water Reclamation Facility (NWWRF)	7500 26 th Ave. N.
Southwest Water Reclamation Facility (SWWRF)	3800 54 th Ave. S.
St. Petersburg Master Reuse System (MRS)	1650 Third Ave. N.

Albert Whitted Water Reclamation Facility, a 12.4 million gallons per day (MGD) annual average daily flow (AADF), Type I modified conventional activated sludge domestic wastewater treatment plant. The Albert Whitted Facility, although currently closed, was operated under Wastewater Permit No. FLA128830. This facility has two injection wells (IW-1, IW-2), with 30-inch OD steel casings set between 630 and 640 feet below the surface (bls), and a total depth of between 867 and 1,005 feet bls. The maximum injection rate shall not exceed 24.0 MGD per well. The groundwater monitoring system includes four on-site monitor wells. This AWWRF is not active and the wells receive water from the Master Reuse distribution system.

Northeast Water Reclamation Facility, a 16.0 million gallons per day (MGD) annual average daily flow (AADF), Type I complete-mix activated sludge domestic wastewater treatment plant. The Northeast Facility is operated under Wastewater Permit No. FLA128856. This facility has three injection wells (IW-1, IW-2, IW-3), with 20-inch outer diameter (OD) steel casings set between 725 and 726 feet below land surface (bls), and a total depth of 1,000 feet bls. The maximum injection rate shall not exceed 9.0 million gallons per day (MGD) per well, or 13.5 MGD per well when one of the wells is out of service. The groundwater monitoring system includes six on-site monitor wells.

Northwest Water Reclamation Facility, a 20.0 million gallons per day (MGD) annual average daily flow (AADF), Type I, complete mix activated sludge, domestic wastewater treatment plant. The Northwest Facility is operated under Wastewater Permit No. FLA128821. This facility has two injection wells (IW-1, IW-2), with 30-inch OD steel casings set at 760 feet bls, and a total depth of between 1,110 and 1,115

feet bls. The maximum injection rate shall not exceed 16.0 MGD per well. The groundwater monitoring system includes two on-site monitor wells.

Southwest Water Reclamation Facility, a 20.0 million gallons per day (MGD) annual average daily flow (AADF), Type I, complete mix activated sludge, domestic wastewater treatment plant. The Southwest Facility is operated under Wastewater Permit No. FLA128848. This facility has three injection wells (IW-1, IW-2, IW-3), with 24-inch OD steel casings set between 904 and 928 feet bls, and a total depth of between 970 and 1,100 feet bls. The maximum injection rate shall not exceed 15.0 MGD per well. The groundwater monitoring system includes seven on-site monitor wells.

St. Petersburg Master Reuse System, a 56 million gallons per day (MGD) annual average daily flow (AADF), Part III slow-rate public access master reuse system. The St. Petersburg Reuse is operated under Wastewater Permit No. FLA012881. This system utilizes the two injection wells (IW-1, IW-2) at the AWWRF.

Below is a brief time line of events that have led up to the recent violations.

- **02/1995** Underground Injection Well Consent Orders executed for all four Waste Water Treatment Plants due to fluid migration.
- **08/1995** An estimated 25-54 million gallons of raw sewage was released into Clam Bayou. DEP consent order 97-0134 executed.
- **02/1998** An estimated 3 million gallons of raw sewage released into Clam Bayou and 19 million gallons of reclaimed water from storage tanks at SW plant.
- **01/2000** Consent order 97-0134 executed for unpermitted waste water discharges from 1995-1998.
- **12/2001** Southwest Water Reclamation Facility Master Plan created.
- **12/2005** 40 CFR 146 became effective (allowing exemptions for existing wells with fluid migration) – codified in Rule 62-528.300, Florida Administrative Code.
- **06/2008** City proposed plan to comply with Rule 62-528.300, FAC. DEP deemed it insufficient for AWWRF
- **11/2011** 11 Consent Order Amendments between 1995 and 2014 to allow extra time to find alternative waste water disposal for AWWRF.
- **02/2012** City Completed a Capacity Study and proposal to shift flow from AWWRF to SWWRF.
- **04/2013** Brown & Caldwell evaluation of SWWRF hydraulic and treatment process. Advised that plant can hydraulically pass a peak flow of 40 MGD if everything is functioning and recommendations for improvements to allow plant to process 20 MGD.

- **7/30/2014** Brown & Caldwell evaluation of system advised the city that a heavy rain event would cause failure. Recommended 3 options for improvements.
- **04/07/2015** Flow to AWWRF ceased. All flow diverted to SWWRF before any improvements were made.
- **8/2/2015-8/10/2015** high weather event 31 million gallons of waste water released.
- **6/8-6/9/2016** TS Colin 10 million gallons released.
- **8/31-9/9/2016** HR Hermine Approximately 136-151 million gallons released into state waters and 500-600 million gallons put into injection wells.
- **9/28-10/10/16** HR Matthew Minimal impact to west coast, no discharges.

From July of 2015 through September of 2016 the City of St Petersburg had several unpermitted discharges. These discharges occurred during and after high weather events. Governor Rick Scott declared a State of Emergency during these events under Executive Order Number's 16-136 and 16-205. Part of the orders authorize some State, regional and local agencies and other governmental bodies, in responding to the emergency, to waive or deviate from the statutes, rules, ordinances, and orders they administer. However, in no way does this allow the City to violate the law. The discharges by the City were found to exceed all the other municipalities in the Tampa Bay area combined by a significant factor. The discharges of August 2016 represented 51-58% of the total discharges for the entire State of Florida. These were willful and negligent acts that could have been avoided or at least significantly mitigated had the City taken action 20 years ago.

Similar storm events in the late 90's showed deficiencies in the waste water system. From August 2, 1995 to August 10, 1995 the City reported 15.6 million gallons of unpermitted discharges to DEP. After a DEP investigation it was determined to be 25-54 million gallons. In response to this the City hired, Tampa Bay Engineering, to conduct a study of the collection system. They determined that maintenance and capital improvements to the collection system were required to prevent unpermitted discharges. From December 1997 to March 1998 there was another series of discharges. In February of 2000 DEP executed consent order 97-0134.

During the 1970's, significant capacity upgrades were made to all 4 plants and injection wells were installed. The total wastewater treatment capacity remained the same for the next 45 years. In April of 2015 the City, despite previous failures and extensive studies by engineering companies, made the decision to shut down the AWWRF plant. This was done before any upgrades were done to the other plants to make up for the lost capacity. That decision effectively reduced the City's total treatment capacity by 12.4mgd. It caused the City to willfully and negligently discharge vast quantities of wastewater that was harmful to plant, animal and human life. This is a violation of s. 403.161(1)(b), (3) and s. 403.413(6)(c).

During the course of this investigation several individuals were interviewed (See attachments for individual summaries). A long history of deferred maintenance, mismanagement of funds and rule violations were found. Its leadership has had a culture of being willfully and negligently indifferent toward known problems in its waste water treatment system that ultimately lead to some of the largest

wastewater discharges in State history. Examples of this include taking AWWRF off line before upgrades to SWWRF were done, minimal budget to I&I repairs, failing to seek CWA state revolving funds for capacity upgrades and I&I repairs instead of a "green energy" project, failing to restart AWWRF after discharge problem was identified, deferring maintenance too long. Claims were made that the rain events of 2015 and 2015 were "historic", "unprecedented" or "100 year event". These claims are not based in fact or reality. Historic date of rainfall in Pinellas County for the last 100 years shows rain events on the scale of 2015 occurring regularly every 10-15 years. The 2016 rain fall amounts are less frequent and occur every 25-30 years. We were unable to obtain any historical documents regarding discharges prior to the 90's. By following the rainfall data trends for the past 50 years it's very likely there were other "undocumented" discharges. They were most likely not investigated due to minimal regulation in that time or limited investigative resources.

Over the past 20 years the City's wastewater system has seen an increase in demand due to population increase. Data from the US Census was used to determine population changes in the area. It shows that there has been a 7.4% increase in population or approximately 23,188 persons to the Cities service area from 1996 to 2014. The average person produces 80-100 gallons of waste water. This works out to be an increase in total waste water demand to the Cities system of 2.41 million gallons.

A plants total treatment capacity is determined by measuring how much waste water it can process and its hydraulic capacity. A treatment plants permit lists only its process capacity. This is what the plant can theoretically process for a long term if everything is functioning perfectly. The hydraulic capacity is the volume of waste water the plant can intake. A plant can treat its hydraulic capacity for a very short duration measured in hours or minuets. The true capacity of each plant in the City system is currently unknown.

The SWWRF recently underwent several assessments to determine its exact capacity and what needs to be done to improve it. This was done with the plan of closing AWWRF and diverting its flow to SWWRF. The engineering company, Brown & Caldwell, was hired in 2013 to conduct a treatment process and hydraulic capacity evaluation. The evaluation determined that the SWWRF would have a 20 MGD process capacity and a 40 MGD hydraulic capacity if everything was functioning properly and a few upgrades were made. In February of 2014 Brown & Caldwell was tasked with doing an assessment of the wet weather and liquid capacity of the SWWRF with AWWFR flow diverted. They look at 10 years of rain data and determined that 2012-2013 had the highest rain fall. They focused on these 2 year and determined that the SWWRF could have peak flows of 69 MGD. They then provided 3 options to increase capacity to allow the SWWRF to handle a 69 MGD peak flow event. The City chose not do any of the options before closing AWWRF and redirecting the flow to SWWRF. After the flow had been diverted they chose the cheapest and least effective option that still did not increase treatment capacity. They chose option 1 and began construction of a 10 MG storage tank. This action was essentially a gamble that they would not have a wet weather event. When dealing with the health and safety of the public it would be considered a willful and negligent act.

After receiving these results and recommendations from an experienced and reputable engineering company, the City chose not to pursue a prudent and reasonable course of action. They instead embarked on a "green energy (biosolids)" project. The City made a request for \$63 million dollars from Florida Department of Environment Protection's, Clean Water State Revolving Fund Loan Program, to construct a methane gas recovery system at their SWWRF plant. This project would use

activated sludge concentrate from all their plants to make methane gas to be used in their fleet vehicles. It was also projected to correct bottlenecks in the treatment process. The fund provides ultra-low interest loans to City and county governments for planning, designing, and constructing water pollution control facilities. This fund's number one priority is "Eliminate a documented chronic or acute public health hazard". The fact that the City requested and received funding for the project shows they knew about the program and its primary purpose, yet they made no efforts to request funding to assist them in upgrading their plants peak hydraulic treatment capacity or fix the influx problem. It is an undisputed fact that there is a documented chronic and acute public health hazard posed by the City's wastewater treatment system. Their failure to take proper action here constitutes another example of willful and negligent attitude toward the health and safety of plant, animal and human life in the area.

In addition to the waste discharge hazards, is the production and storage of the highly flammable and explosive gas methane, next door to Eckerd College. The same College they flooded with 15 million gallons of waste water in August 2015. Flammable gases are normally stored and produced in industrial areas far from neighborhoods or schools. The City has decided to install this production mere feet from a school.

A new area of investigation regarding deep well injection of waste water after interviews with Mr. Charlie Wise. Waste water injection wells were first installed in the City in the 1970's. They were used as cheap waste dumps without regulation until 1995 when underground injection control standards were created in 62-528.300, F.A.C. These wells were installed at depths 800-1200ft below the surface into aquifers that are considered unsuitable sources of drinking water due to high salinity and dissolved solids. Upward migration of the waste was detected in nearby monitor wells soon after use. This means that the unregulated waste water of unknown composition was flowing upward into the drinking aquifer below. Significant changes in water quality were detected. New regulations were put in place in 2005 that requiring high level disinfection before injection into the wells as defined in subsection 62-600.440, F.A.C. They also required that every waste water plant that uses injection wells, also have storage capacity that shall be the volume equal to one day flow at the average daily design flow of the treatment plant as defined in subsection 62-610.464(3), F.A.C. The intent of this requirement is for the storage capacity to act as a buffer during peak flow events. It provides a place to store untreated waste water and allow the plant to catch up if it is overwhelmed by heavy weather or equipment failure. The City only has one plant that is in compliance with 62-610.464(3). The NEWWRF was the only plant in compliance with this rule. The SWWRF came into compliance in July of 2016. The NWWRF is still not in compliance and no plans have been made to correct this violation. This is a violation of s. 403.161(1)(b).

The injection well system has been abused for years. The City appears to follow a theme of "out of sight, out of mind" when it comes to injection of waste water. This blatant disregard for the Clean Water Act is putting our ground water at risk. In an EPA study titled "Relative Risk Assessment Of Management Options For Treated Wastewater in South Florida", it found there to be the potential risk of microbial contamination of drinking water due to upward migration from the deep injection site. This risk is eliminated as long as the injected water is treated to high standards. Injection of untreated waste water would therefore be a violation of s. 403.161(1)(a).

Influx and infiltration (I&I) of storm water into the sanitary sewer system is a major problem in the City. The City has a system that is old and in disrepair. It has been identified by DEP and the City as a

main reason for high water flows into the waste water plants during rain events and subsequently blamed for the discharges. The storm water collection systems in the State are required to be isolated from the sanitary sewer system. Failure to do so is a violation of s. 403.161(1)(b). The City was under consent order for 10 years because of I&I violations with its storm water collection system. In an interview with the manager of the system, Lane Longley, he stated that very little work was actually done to fix the I&I problem. Most work was done on main lines and man holes. He never claimed that the problem was fixed. The majority of inflow comes from private lateral lines. Several studies of the system were commissioned by the City. They recommended that the City increase capacity at their plants instead of trying to repair the collection system. The cost to repair it was approximately 3 billion dollars. It would be far cheaper and easier to just upgrade the treatment capacity at the plants. Claims made by other that they thought the system was fixed and therefore did not need to worry about it, were not based in fact.

I have found that the City of St Petersburg violated **403.413(6)(c)**- Any person who dumps litter in violation of subsection (4) in an amount exceeding 500 pounds in weight or 100 cubic feet in volume or in any quantity for commercial purposes, is guilty of a felony of the third degree, punishable as provided in s. 775.082 or s. 775.083. Whereas **litter** is defined in section (f), means any garbage; rubbish; trash; refuse; can; bottle; box; container; paper; tobacco product; tire; appliance; mechanical equipment or part; building or construction material; tool; machinery; wood; motor vehicle or motor vehicle part; vessel; aircraft; farm machinery or equipment; sludge from a waste treatment facility, water supply treatment plant, or air pollution control facility; or substance in any form resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations. Whereas **dump** is defined in section (d), to dump, throw, discard, place, deposit, or dispose of.

There is also multiple violations of **403.161(1)(a)**- To cause pollution, except as otherwise provided in this chapter, so as to harm or injure human health or welfare, animal, plant, or aquatic life or property. (3) Any person who willfully commits a violation specified in paragraph (1)(a) is guilty of a felony of the third degree punishable as provided in ss. 775.082(3)(e) and 775.083(1)(g) by a fine of not more than \$50,000 or by imprisonment for 5 years, or by both, for each offense. Each day during any portion of which such violation occurs constitutes a separate offense.

Also violations of Florida Statute **403.161(1)(b)**- To fail to obtain any permit required by this chapter or by rule or regulation, or to violate or fail to comply with any rule, regulation, order, permit, or certification adopted or issued by the department pursuant to its lawful authority. (5) Any person who willfully commits a violation specified in paragraph (1)(b) or paragraph (1)(c) is guilty of a misdemeanor of the first degree punishable as provided in ss. 775.082(4)(a) and 775.083(1)(g) by a fine of not more than \$10,000 or by 6 months in jail, or by both for each offense. (6) It is the legislative intent that the civil penalties and criminal fines imposed by the court be of such amount as to ensure immediate and continued compliance with this section.

The following rules apply with this section:

Rule **62-604.130(1)**, F.A.C., prohibits the release or disposal of excreta, sewage, or other wastewaters or residuals without providing proper treatment approved by the Department.

Rule **62-600.410(1)**, F.A.C., provides that all domestic wastewater facilities shall be operated and maintained in accordance with the applicable provisions of this chapter and related regulations so

as to attain, at a minimum, the reclaimed water or effluent quality required by the wastewater facility permit.

Rules **62-600.410(3)** and **62-604.500(3)**, F.A.C. provide that all facilities and equipment necessary for the collection, transmission, treatment, reuse and disposal of domestic wastewater and biosolids shall be maintained, at a minimum, to function as intended.

Rule **62-604.130(4)**, F.A.C., prohibits the unauthorized or deliberate introduction of storm water into collection systems and transmission facilities. F.A.C.