

**WASTEWATER
INDUSTRIAL WASTE & PRETREATMENT
AUDIT 18-17
November 28, 2018**



CITY OF TAMPA

Bob Buckhorn, Mayor

Internal Audit Department

Christine Glover, Internal Audit Director

November 28, 2018

Honorable Bob Buckhorn
Mayor, City of Tampa
1 City Hall Plaza
Tampa, Florida

RE: Wastewater - Industrial Waste & Pretreatment, Audit Number 18-17

Dear Mayor Buckhorn:

Attached is the Internal Audit Department's report on Wastewater - Industrial Waste & Pretreatment.

We thank the aforementioned management and staff for their cooperation and assistance during this audit.

Sincerely,

/s/ Christine Glover

Christine Glover
Internal Audit Director

cc: Dennis Rogero, Chief of Staff
Sonya Little, Chief Financial Officer
Ernest Mueller, Chief Assistant City Attorney
Brad Baird, Administrator Public Works & Utility Services
Eric Weiss, Director of Wastewater
Erik Garwell, Wastewater Treatment Plant Manager
John Daily, Division Supervisor

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/s/ Anthony D. Tiwari

Auditor

/s/ Christine Glover

Audit Director

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BACKGROUND

Florida's Department of Environmental Protection (DEP) issues permits to treatment plants that treat and discharge wastewater to surface and ground waters of the state, known as the National Pollutant Discharge Elimination System (NPDES) permit. The DEP is authorized by the federal government through the Environmental Protection Agency (EPA) to issue the NPDES permit. The City of Tampa (COT) owns and operates the Advanced Wastewater Treatment Plant (AWTP), which collects and processes domestic and industrial wastewater, prior to discharging the effluent into Hillsborough Bay. COT holds the NPDES and is considered the Control Authority sanctioned by the DEP to regulate and issue discharge permits to Significant Industrial Users (SIU) and transported waste haulers. All industrial wastewater discharged in Florida must provide reasonable assurance of meeting Florida's Water Quality Standards¹ to receive a discharge permit issued by the Industrial Waste Section (IWS).

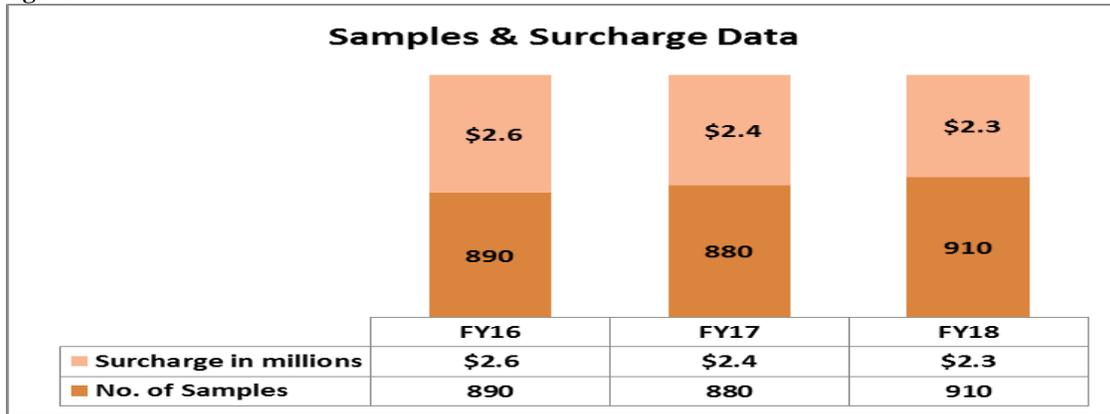
The primary goal of the IWS, a division of the Wastewater Department, is preventing the introduction of pollutants into the AWTP that may pass through to the waters of the state². The four person team, including one supervisor, is responsible for the following:

1. Sampling and inspection of Industrial Users, SIU, and transported waste haulers discharge.
2. Reviewing industrial facility plans and making recommendations for establishing discharge permits.
3. Establishing schedules for monitoring industrial wastewater facilities to determine special user fees.
4. Developing special user rates and coordinating data for the industrial cost recovery system.
5. Reviewing industrial wastewater reports to determine compliance with permit requirements.
6. Developing schedules for monitoring and inspecting industries for compliance to applicable federal laws, state statutes, and local ordinances.

Figure 1 displays the number of samples and surcharge data, generated by the IWS team, for the fiscal years FY16 through FY18. The IWS uses the monthly industry sample collection data to monitor for compliance and generate billing data. The team has assisted in generating approximately two million dollars in annual surcharge for the Wastewater Department.

1. Industrial Wastewater Program, Florida Department of Environmental Protection. <https://floridadep.gov/>
2. COT, Wastewater Discharge & Industrial Pretreatment Standards Technical Manual. <https://www.tampagov.net>
3. Florida Water Environment Association Awards. <https://www.fwea.org/awards.php>

Figure 1



Source: Auditor interpretation of IWS monthly billing reports data and IWS metrics for FY16-FY18

STATEMENT OF OBJECTIVES

This audit was conducted in accordance with the Internal Audit Department's FY19 Audit Agenda. The objectives of the audit were to evaluate:

1. The adequacy of controls implemented by the IWS to permit and monitor the SIU's discharge.
2. The IWS's compliance with the regulatory annual and five year DEP permit requirements.

STATEMENT OF SCOPE

The audit period covered FY16 through FY18. Both qualitative and quantitative assessments were performed to determine whether the management and staff of the IWS were fulfilling their stated duties and responsibilities in an effective and efficient manner. Original records as well as copies were used as evidence and verified through observation and physical examination.

STATEMENT OF METHODOLOGY

We achieved our audit objectives by utilizing the following methods:

1. Interviewed key personnel to map processes and determine whether adequate internal controls had been established.
2. Performed a data reliability analysis to determine completeness and accuracy of the billing data computed from the laboratory analysis.
3. Conducted a walkthrough of the AWTP process for receiving and treating industrial wastewater.
4. Evaluated the SIU's permit application process.
5. Conducted a walkthrough of a SIU facility to gain an understanding of the inspection process.
6. Evaluated the sample collection process of pretreatment wastewater prior to laboratory analysis.
7. Evaluated the IWS's enforcement procedures on delinquent industrial users.
8. Evaluated the investigation process for overflows, business activity, and collection systems.
9. Analyzed the response from the IWS to the DEP's audit recommendations.
10. Analyzed a sample of inspections performed from the SIU's population.

The sample size was based on the criteria of 90% confidence and 10% error rate, used to infer the results of the testing on the data acquired from the IWS. When appropriate, judgmental sampling was used to improve the overall efficiency of the audit.

STATEMENT OF AUDITING STANDARDS

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objectives.

NOTEWORTHY ACCOMPLISHMENTS

The IWS's Supervisor is the recipient of the Albert B. Herndon from the Florida Water Environment Association, a leading non-profit organization which promotes a clean and sustainable water environment. The award is in recognition of his outstanding achievement, dedication and contributions in the area of Industrial Pretreatment³.

AUDIT CONCLUSIONS

Based upon the audit work performed, our conclusions were as follows:

1. The controls implemented by the IWS to permit and monitor the SIU's discharge are adequate.
2. The IWS is compliant with the regulatory annual and five year DEP permit requirements.