

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

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D. Albrey Arrington, Ph.D., Executive Director

MEMORANDUM

TO: Albrey Arrington, Executive Director

FROM: Tom Vaughn, Director of Operations

DATE: August 6, 2015

SUBJECT: Operations Department Monthly Report for July 2015

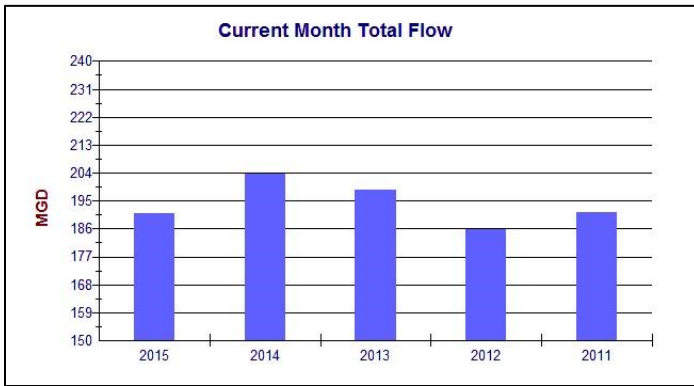
Treatment Plant Division

RIGHT. Process Control Consultants held two classes this month on instrumentation process. It was very informative and will be a great benefit to the District for plant operators to better understand the inner workings of these devices.

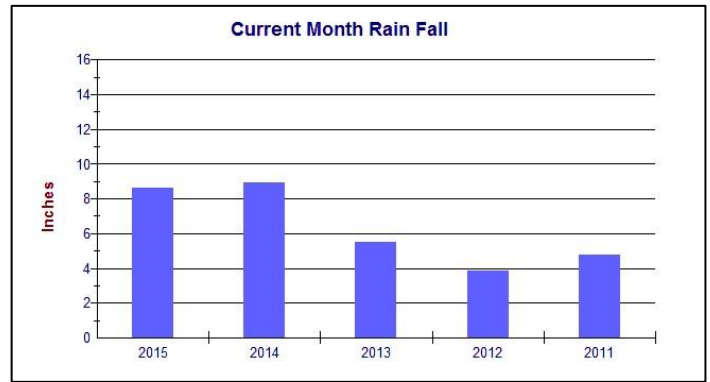


LEFT. Rust stains due to the wet weather of the summer rain storms have caused unsightly streaks down the plant's piping. Plant operators continue to make an effort to keep all of our equipment clean and presentable.

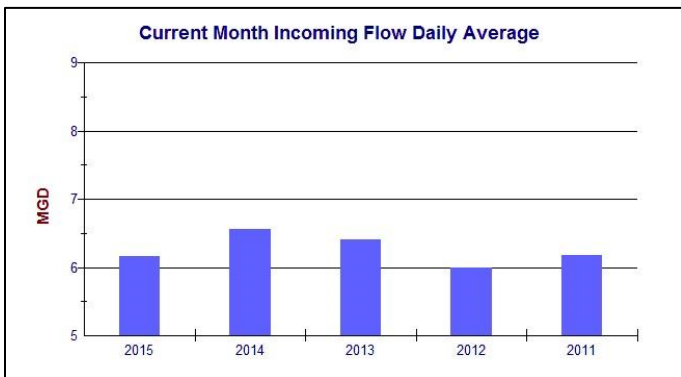
We have had another great month of no Permit exceedances.



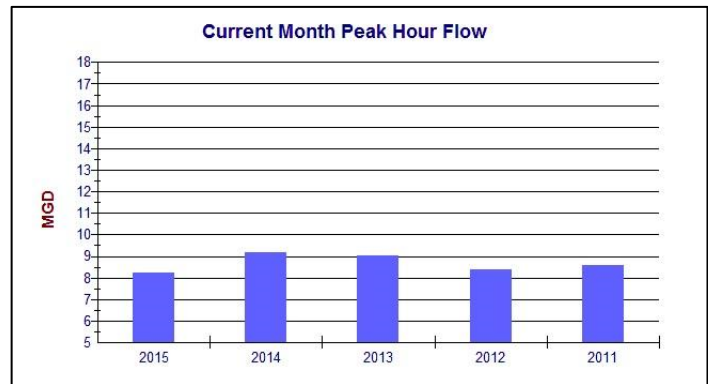
The plant total flow for the month of July was 190.91 million gallons.



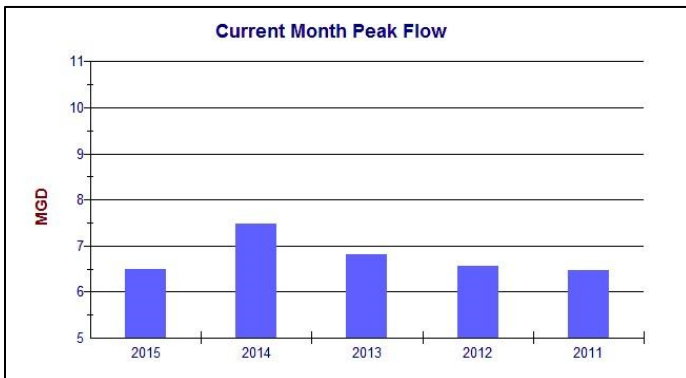
8.61 inches of rainfall were recorded at the plant site during the month of July.



The treatment plant incoming flow for the month of July averaged 6.16 MGD compared to 6.57 MGD one year ago for the same month.

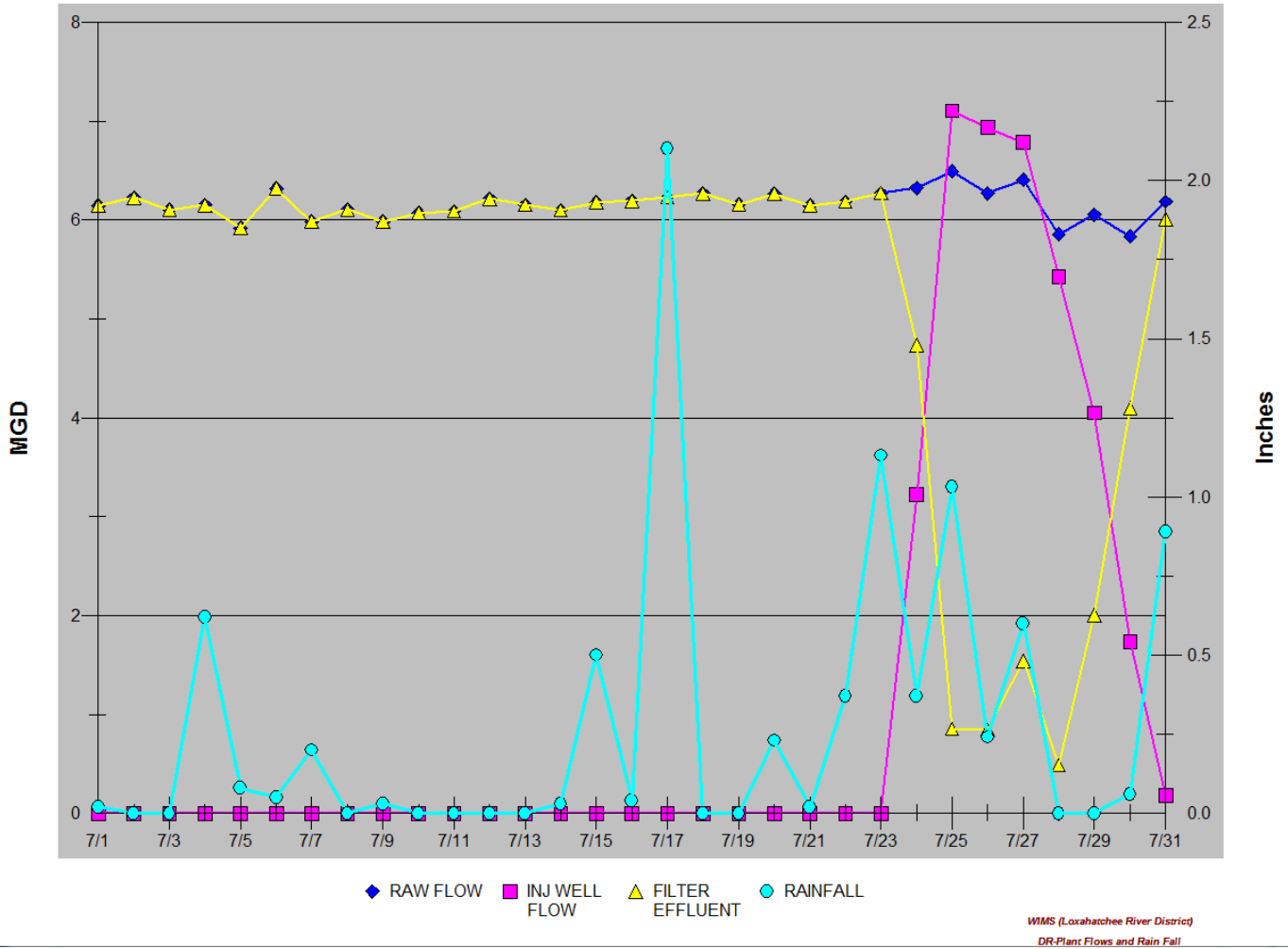


The peak hourly flow rate in July was 8.22 MGD.



The greatest single day average flow in July was 6.49 MGD.

The plant received 190.91 MGD of influent flow of which 162.06 million gallons were sent to the IQ storage system where they were dispersed as needed to the various golf courses and the Abacoa development sites. Due to wet weather conditions and 8.61 inches of rain during the month, 35.44 million gallons of blended effluent was diverted to the Injection Well. Overall, 84.89% of incoming flows was recycled for IQ use and the plant delivered 154.88 million gallons of IQ water to the Reuse customers.



For the year 2015, the plant recycled 74.57% of all incoming flow and the total amount of IQ water delivered to reuse customers stands at 1,169.72 million gallons.

All required monthly reporting has been submitted on time.

Safety / Compliance

DEP. The new Storage Tank Registration Placard, required by the DEP has been received and posted in the Operations building for display.

This placard demonstrates the Loxahatchee River District is in full compliance with all applicable Statutes and Department rules regarding the storage of fuel in stationary tank systems located on District property.



The DEP did not hold any certification tests for the month of July, due to summer schedules and the 4th of July holiday. Testing will resume in August and testing dates for September, and October have already been confirmed.

The Loxahatchee River District has quickly become *the* destination for DEP certification testing in the South East region.



INSPECTIONS. The Division of Emergency Management conducted an onsite inspection, monitoring activities and to verify compliance of the District's RMP (Risk Management Plan). A suggestion of improvement was a chlorine cylinder identification program.

A numbering system was implemented to assist first responders in quickly identifying a problem cylinder during an emergency.

SAFETY TRAINING. Safety training for the month of July included the GHS (Globally Harmonized System) for chemical labeling and classification. These new standards involve the evolution of the MSDS (Material Safety Data Sheet) to the SDS (Safety Data Sheet). The new SDS has a standardized sixteen section format. This new format designates where the chemical manufacturer's contact information, health hazards, firefighting measures and protective equipment requirements are located.

New hazard identification pictograms have also become standardized, as well as the addition of a pictogram for aquatic toxicity.



The
GHS
Globally Harmonized System
of Classification and Labeling of Chemicals

OUTREACH. The Safety and Compliance Department partnered with the River Center for an outreach program hosting FAU's "H2O to GO" summer research program. This program introduces students, grades 9 – 12 to the complexity of South Florida's water systems and the environmental issues facing them.

The Loxahatchee River District's biological process of treating waste water to produce irrigation quality water was discussed. The treatment facilities ability to reduce the use of Florida's aquifer system for irrigation purposes, coupled with wastewater not being discharged into area waterways highlighted the Loxahatchee River District's water conservation efforts.



Collections and Transmissions Division



LEFT. In the Abacoa Development, at IQ 523, new support hardware has been installed for a new style water level sensor.

The install site is the D.E.P. (Department Environmental Protection) permitted continuous monitoring location #STM-04 (Abacoa MSSW Internal Discharge Structure)

The purpose of the new style sensor is for a better and safer access point for calibration and repair. The existing sensor is a submersible level sensor and is physically attached to the internal weir wall.

BELOW. In Abacoa, at the Town of Jupiter South Community Park, a new playing field was constructed during park expansion. The District's role in the expansion was the reliable and expanded Reclaimed water daily allotment necessary for the newly installed field turf grass to grow.

Communications between the Town of Jupiter Engineer, Contractor, and District Administration to facilitate the agreement for the increased allotment went on for a ten week period.

The District completed the required ten week commitment for the Reuse water for the Town of Jupiter Community Park expansion.



RIGHT. The District Collection Crew made improvements to the area around the wet well lid for Lift Station #34 for Jonathan's Landing Clubhouse.

Erosion had exposed the electrical conduits leading into the wet well. The crew built a "retaining wall" and filled it in with gravel to cover and protect the conduits.



BELOW. The District’s Collection Crew performed the scheduled annual “PM- preventative maintenance” at lift station #82 per MP2 task. Maintenance consist of exercising valves, checking pump performance, lights, fans, sump pump and alarms functions. The entry into the space which is below ground is performed by Confined Space Entry Permit under the supervision of the Field System Foreman and the Compliance / Safety Officer.



RIGHT. In the Jupiter Hills Development, the District is in the process of installing new control panels, electrical disconnects, grounding, and Stanton racks to two (2) Lift Stations (#52 and #59).

Permitting requirements for commercial power disconnect, city/county inspections, and release for commercial power re-connect was completed. All additional work was performed by District personnel. Station #52 has been completed, permit is closed, and FPL power is back on. Station #59 is to be completed in early August.



LEFT. For the reporting month, one (1) new Low Pressure System came online in the Low Pressure Pump Station System.

The District’s VacCon Crew cleaned the following lift stations in July 2015; # 222, 18, 172, 226, 249, 248, 97, 140, 76, 20, 114, 98, 257, 15, 226, 144, 254, 12, and 154.

Scheduled inspections and cleanings included Lift Station #142 gravity system; 6 manholes and 839 lineal feet of gravity main and Lift Station #141 gravity system; 4 manholes and 870 lineal feet of gravity main.

During the reporting month, there was no major system or equipment failure in Field Collection/Transmission systems that caused emergency or for systems to not operate normally.



Maintenance

BELOW. The Blower room expansion joint failed and was in need of replacement. The Maintenance crew has removed the blind flange and installed a new expansion boot. Preliminary actions were taken to ensure a smooth install. Gaskets were punched out prior to removal of the expansion joint. The crew utilized all possible man power at the facility including operators from process control for a quick turnaround.



All participation in this task was greatly appreciated.



Tidbits from Tom

July, 2015 – Independence Day



The Operation's Department has installed a flag at the entrance to Building G. We hope to be reminded daily of the sacrifices made so that we may enjoy the many freedoms which we have in this great nation.

Perspective: Change

Once upon a time, some researchers conducted an experiment. They obtained five monkeys and placed them into a single cage. In the center of the cage was a stairway that terminated in thin air. After a hungry night in the cage, the monkeys saw a researcher lowering a bunch of bananas through the bars above the stairs. The monkeys immediately charged up the stairs toward the food. Other researchers immediately blasted the monkeys with ice cold water from fire hoses, played tapes of loud, discordant music, and turned on strobe lights. They repeated these actions every time they lowered the bananas into the cage. It didn't take the monkeys long to refuse to set foot on the stairs, no matter how hungry they were.

Once this conditioning had taken effect, the researchers removed one of the monkeys from the cage and replaced him with a 2nd-generation monkey. Down came the bananas. The new monkey raced for the stairs. Before he could set foot on the bottom step, the other four monkeys grabbed him and beat him down, not wanting to experience a repeat of the previous few days' unpleasantness. No icy bath, strobe lights, or discordant music resulted. This was repeated until all of the 1st generation monkeys had been replaced by 2nd generation monkeys, none of which had experienced the unpleasantness through which the 1st generation had lived.

Once the 2nd generation monkeys were completely conditioned, one of them was removed from the cage and replaced with a 3rd generation monkey. Down came the bananas. The newest monkey dashed for the food, was caught at the bottom of the stairs, and beaten down, just as the 2nd generation monkeys were beaten down by the 1st generation monkeys. During the beat-down, the new monkey cried out "**Why are you guys beating me?**" The beat down stopped and the four 2nd-generation monkeys looked around at each other. Finally, one of them replied... "**I don't know, it's just that we've always done it that way.**" As changes in the near future approach, we hope to refrain from a "We've always done it that way" attitude and act like the monkeys in the story. We're supposed to be smarter than monkeys. Change.

See ya' at the Top – (That's near Cheese Station "N")

**Tom Vaughn
Director of Operations**