

Aquarina Waterworks, Inc.

2517 Elm Circle

Lake Wales, FL 33898

Kevin Burge (772) 708-7946

Keith Burge (772) 201-3299

aquarinawaterworks@bellsouth.net (Kevin Burge)

burkimwater@aol.com (Keith Burge)

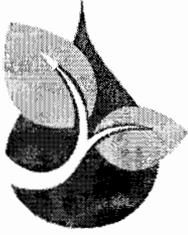
City of Polk City
Polk City Commissioners

December 2015 Utility Operations Summary

Executive Summary

The following points are presented as an overall summary of water and wastewater utility department activities and events that occurred during the month of December, 2015:

- Continued to meet with contractors about voyles's loop lift station. This lift station needs a permanent 50 KW generator along with an emergency bypass in the valve pit.
- Still waiting for written quotes to come in from electrical contractor regarding installation of stand by generator at voyle's loop lift station.
- Obtained (3) quotes for a new standby generator at Voyles's loop lift station. Will recommend specific generator later in report.
- The call outs for the month of December 2015 have declined even further from the previous month. The men are trying to stay on top of the preventative utility maintenance.
- On December 6, 2015 we assisted the city with their annual Christmas Parade.
- Continued to call CAT Ring power about doing the necessary maintenance on generators that was identified in the technician's service report the previous month.
- We are still responding to a number of call outs regarding the golden gate lift station. It is identified as lift station #11. We will meet with city manager in January to talk about our recommendations for upgrading/retrofitting lift station.
- All necessary reporting and testing was performed as required by operating permits. These reports were sent to the appropriate regulatory agencies.



Aquarina Waterworks, Inc.

2517 Elm Circle

Lake Wales, FL 33898

Kevin Burge (772) 708-7946

Keith Burge (772) 201-3299

aquarinawaterworks@bellsouth.net (Kevin Burge)

burkimwater@aol.com (Keith Burge)

City of Polk City Polk City Commissioners

December 2015 Utility Operations Summary

Executive Summary

The following points are presented as an overall summary of Water and Wastewater Utility Department activities and events that occurred during the month of December, 2015:

- Continued to meet with contractors about Voyles Loop lift station. This lift station needs a permanent 50 KW generator along with an emergency bypass in the valve pit.
- Still waiting for written quotes to come in from electrical contractor regarding installation of stand by generator at Voyles Loop lift station.
- Obtained (3) quotes for a new standby generator at Voyles Loop lift station. Will recommend specific generator later in report.
- The call outs for the month of December 2015 have declined even further from the previous month. The men are trying to stay on top of the preventative utility maintenance.
- On December 6, 2015 we assisted with Polk City's annual Christmas Parade.
- Continued to call CAT Ring Power about doing the necessary maintenance on generators that was identified in the technician's service report the previous month.
- We are still responding to a number of call outs regarding the Golden Gate lift station. It is identified as Lift Station #11. We will meet with City Manager in January to talk about our recommendations for upgrading/retrofitting lift station.
- All necessary reporting and testing was performed as required by operating permits. These reports were sent to the appropriate regulatory agencies.

Operations and Maintenance Activities

- Monthly compliance sampling for December 2015 has been completed. Including sampling for all monitoring wells.
- December 3, 2015 - responded to a water leak on Bayberry Court. The service line was repaired and service restored in a timely manner.
- December 8, 2015 - responded to a 2" water main break on Berkeley Road. The break was repaired under pressure because one or more shut off valves did not work properly. The 2" line is an old galvanized pipe. We will meet with city manager in January to discuss putting line replacement in 5 year capital plan.
- December 9, 2015 - pulled both submersible pumps at lift station #11. Both pumps were clogged with minor debris.
- December 10, 2015 - pulled one submersible pump at lift station #11. Pump was clogged with minor debris.

- December 13, 2015 - responded to a water main break on Jacobs Road. This was a 6" water main break under a customer's driveway. The break was caused by a large tree root that wrapped around the main and squeezed tight until main line cracked. We assisted Odom contracting with removal/disposal of customer's driveway, repairing leak, and pouring new driveway.
- December 15, 2015 - pulled one submersible pump at lift station #11. Pump was clogged with minor debris.
- December 19, 2015 - responded to the cardinal hill wastewater plant because of a blower not working. We diagnosed problem and replaced inoperable phase monitor with a new one. Blower is operating normally.
- December 20, 2015 - responded to a sewer back up in the golden gate neighborhood. The back-up was in the customer's lateral line. The main lines were flowing normally. Informed customer they needed to call a plumber.
- December 21, 2015 - responded to a strange noise at Matt Williams water plant and found the well pump motor not working. We called Central Electric and made provision for pump to be fixed. We are still waiting for the pump to be fixed but should have it back soon.
- December 28, 2015 - pulled submersible pump #1 at lift station #12.

Miscellaneous Job Order Completions

- 38 services turned on/off
- 7 locates
- 3 water line repairs (minor leaking around meter couplings)
- Assisted with some meter reads and re reads
- 3 call-outs from answering service/SCADA/auto dialers
- 120 work orders

Planned December Monthly Activities

- Meet again with city manager and public works director to go over five-year Capital Improvement Plan.
- Holding off the painting of Jacobs water plant until we talk to City Manager Jackson and GAI Consultants
- Continue to inspect sanitary sewer lines and manholes.
- Continue inspection of water lines and water isolation valves
- Finish up recommendation for permanent stand by generator for lift station #7 at Voyles Loop.
- Finish up recommendation for emergency bypass at lift station #7 at Voyles Loop.
- Begin to gather cost estimates for 2016 Capital Improvement Projects.
- Continue to oversee and call service company for generator maintenance that was found necessary from last service inspection done in November.

Recommendations Voyles Loop Lift Station

1) GENERATOR

Background

The Voyles Loop Lift Station is a triplex (meaning 3 pumps) station that transfers collected sewer to the Cardinal Hill wastewater treatment plant for processing; this is the City's master lift station. Currently this station collects effluent from (8) different stations. The (4) lift stations at Mt. Olive North as well as Golden Gate, Ruth Road, Fountain Park, and Mt. Olive manufactured home community. This lift station does not currently have a stand by generator and has no generator quick connect for a portable generator; therefore, in my opinion a portable generator is not feasible as because this station tends to fill quickly due to the number of stations that pump into it. As the master lift station, it needs to have readily available power in case of power fluctuations or interruptions.

Recommended Action

Aquarina is recommending the Commission consider purchasing a 50 KW permanent in place generator as well as an automatic electronic transfer switch for the Voyles Loop Lift Station. After conferring with Gerry Hartman, who is a Consultant for the City, and speaking with the City Manager and staff, it is my recommendation to the Commission to authorize Mr. Hartman prepare bid specifications and put this project in its entirety out for bid. This would include a total price for the generator, automatic transfer switch, and installation.

2) Emergency Bypass Pump

Background

As the master lift station, there should be adequate options for dealing with any possible interruptions that may occur on a day-to-day basis. Every other lift station in the utility's service area has an emergency bypass valve except this master lift station. An emergency bypass valve allows utility personnel to use a portable pump to transfer sewerage from the station by suction hose and connect a discharge hose to the bypass valve and begin to pump directly to the Cardinal Hill wastewater treatment plant thereby bypassing the station's pumps. This is used simply in emergency situations where the station's pumps have stopped working. This could happen by power surges, direct lightning strikes, or other anomalies.

Recommended Action

Aquarina is recommending that the Board of Commissioners authorize the installation of an emergency bypass valve at the Voyles Loop lift station.

3) 10 HP Flygt Submersible Pump for Voyles Loop Lift Station

Background

Currently there are three working pumps at the Voyles Loop Lift Station; two (2) are Flygt pumps and one (1) is an HCP pump. All three are 10 HP submersible pumps. The triplex station is a Flygt Station which means all the electrical controls in the panel are wired for use with Flygt pumps. The HCP submersible pump has internal overload capacitors and is not compatible with the Flygt controls in the panel which have the overload capacitors for the pumps directly in the panel. In order for the HCP pump to work the electrician had to use additional wiring to bypass one of the capacitors in the panel and sort of "fool" the panel into thinking the HCP pump was really a Flygt pump. By doing this, the panel is not operating within original manufacturer's specifications and therefore certain electricians will not perform work on the station's panel because they do not want to be liable for things going wrong in the panel that may not necessarily be their fault.

Recommended Action

Aquarina is recommending the Commission authorize the purchase of a new 10 HP Flygt pump