A G E N D A

HENDERSON WATER & SEWER COMMISSION
(270) 826-2421

July 20, 2020
Monday @ 4:30pm

A. ROLL CALL

B. REQUEST TO ADDRESS THE BOARD

C. RECOGNITION FOR 25 YEARS OF SERVICE
   • John Zahn – July 6, 1995 – Utility System Worker II

D. APPROVAL OF MINUTES
   • Approval of Minutes from June 15, 2020

E. MONTHLY REPORTS
   • Financial (Verbal Summary)
   • Plant Operations
   • Field Operations
   • Engineering
   • Human Resources & Safety
   • General Manager’s

F. BUSINESS
   • Action Report # 2020-15 – Design Services – Electrical Engineering
   • Action Report # 2020-16 – Residential Water Meter Project – FY 2020
   • Action Report # 2020-17 – Final Design of Sand Lane Pump Station

G. EXECUTIVE SESSION – Requested
   • To Discuss Matter Regarding Future Acquisition or Sale of Real Property, Pursuant to KRS 61.810 (1) (b)
REQUEST TO ADDRESS THE BOARD
RECOGNITION FOR 25 YEARS OF SERVICE

• John Zahn – Utility System Worker II (July 6, 1995)
ACTION MINUTES OF MEETING
June 15, 2020
Action Minutes
June 15, 2020
Special Teleconference Meeting

HENDERSON WATER & SEWER COMMISSION

A. ROLL CALL

Present at the meeting was Commissioner Paul Bird, Chairman, who presided over the meeting, along with Commissioners George Jones, John Henderson, Gary Jennings, and Julie Wischer. General Manager Tom Williams and Eric Shappell, Attorney, were also present. Other staff members present were Todd Bowley, Kevin Roberts, Bart Boles, Warner Mattingly, Kathy Manker, Tim Fischbeck, and Deniese Jones. Others in attendance were City Manager, William “Buzzy” Newman and City of Henderson Public Information Officer, Donna Stinnett. There were no members of the media in attendance.

This meeting of the Henderson Water & Sewer Commission was held on Monday, June 15, 2020, at 4:30 p.m., prevailing time, with no primary location designated for this video teleconference meeting as the result of the state of emergency declared by the President of the United States and the Governor of Kentucky due to the global COVID-19 pandemic, and in accordance with recommended and mandated precautions related to COVID-19 per the Kentucky Attorney General Opinion 20-05, public attendance was not permitted at this meeting due to the highly contagious nature of COVID-19. It is not feasible for HWU to maintain order and abide by recommended and mandated precautions while providing a central physical location for public viewing. This meeting was conducted in accordance with KRS 61.826.

B. REQUEST TO ADDRESS THE BOARD - None

C. APPROVAL OF MINUTES

• Approval of Minutes from May 18, 2020

    Motion was made by Commissioner John Henderson and seconded by Commissioner Gary Jennings to approve the May 18, 2020 minutes as presented. All Commissioners voted aye. No opposition. Motion carries.

D. MONTHLY REPORTS

• Financial – Discussed and approved as submitted.

    Todd Bowley reviewed the financials with the board. He noted that revenues for year to date continue to trend above budget for the fiscal year due to additional receivables from the
contractual adjustments. He conveyed that due to electricity and sludge cost increases, expenses continued to run over budget. Mr. Bowley informed the group that going forward there will be a new line item in expenses labeled Bad Debt expense. He explained to the board that previously, once a utility account gets over 180 days, it was to be written off into a bad debt AR system, which is off the books but maintained. If a customer tried to re-sign for a utility service based on their social security number, it would be flagged, and that customer would not be able to sign for new service until that debt was paid. In the past, those numbers were always buried in the revenue amounts and were not really separated out. The new system, “New World”, finally has everything activated and is set up so HWU sees a bad debt expense account. Instead of our revenue being less, due to these bad debts, it will be more, and we see this bad debt expense line item. It is just a different presentation that is more correct, and it gives HWU a better idea of where that bad debt stands.

Mr. Bowley indicated that the usage trends are still about the same. He reported that cash flows for the month are positive and that HWU will be processing the pilot payment to the city at the end of the week when payables run. He pointed out that there has not been a lot of capital activity for the last month. Todd conveyed that there are several various projects that had been brought up during the year and they are less than 30k, so there are no Action Reports needed, but that money has been allocated to those this month from the unallocated funds.

- Misc. Capital Project Funding

Tom advised the board that we would like to allocate more capital money to the Myrene Drive pump station to cover the costs remaining and use the rest of the unallocated capital funds for the meter project. He reflected that the more money we can put towards the meter project, the quicker we can have a possible positive impact on revenue. Mr. Williams asked for a motion and a vote allowing HWU to make these changes on the Capital report. Motion was made by Commissioner John Henderson and seconded by Commissioner Gary Jennings. All Commissioners voted aye. No opposition. Motion carries.

- Plant Operations – Discussed and approved as submitted.

Kevin Roberts advised the board that the CCR reports are in the process of being sent out. Some have already received the CCR report and some have not. He noted they are staggered and not everyone gets them at the same time. Mr. Roberts then highlighted to the board that we have had some excellent numbers with our disinfection by-products. He said we are in a really good position going into our hardest quarter, which is August. Kevin stated that Sonic Drive-In, due to their increased business, had their pumps malfunction and it caused a leak into our stormwater drain. The problem was promptly fixed by the Sonic management.

- Field Operations – Discussed and approved as submitted.

Kevin outlined the success we are seeing with the Sewer RAT, with the trailer and an additional Kawasaki UTV being bought for this purpose. He said HWU was able to deploy this rapid assessment tool in Balmoral subdivision and cover almost 2.9 miles in about 12
hours, which is unheard of. HWU is capable of identifying which lines and what sections of lines need to have attention, need to be washed out and perhaps even inspected with the camera. It is a big money and time saver for a relatively low cost. The group discussed what safety measures are being put into place for the crews that are riding the UTVs on public streets.

Tom Williams also mentioned that because of being at half-staff for the first part of the pandemic, the crews had gotten a little behind and will be working 5 days a week at 10 hours instead of 4 days a week. He informed the board that there will be a little overtime expense associated with doing that, but it will help the crews get caught up.

- **Engineering** – Discussed and approved as submitted.

Bart Boles reported to the board that HWU has narrowed the water meter purchases to 2 companies and will be meeting with them to discuss their proposals and the options that they have with their proposals. The board acknowledged that the water meter purchase is a big decision and a long-time investment that requires HWU to pick the right meters and the right company.

He also noted that the Sellers ditch project is in progress and taking a little extra time due to the steep incline of the new 12-inch line. Mr. Boles also informed the group that work is progressing well on the Chestnut/Norris project since a few changes were made to make the neighborhood happy.

- **Human Resources & Safety** – Discussed and approved as submitted.

Tom Williams expressed that there was not much to report. He said we have some new budgeted positions that will be filled as soon as the new fiscal year starts. He also noted that HWU employees have been doing the annual Drug and Alcohol Awareness training on-line this year and it is working out well. The training had been a city-wide group meeting in the past. It is being done on-line this year and probably will be done that way in the future.

- **General Manager’s** – Discussed and approved as submitted.

Mr. Williams advised the board that the HWU Capital Budget has been approved by the city with no questions asked. We have allocated money out of the capital budget for the Graham Hill and Tyson Tank rehab projects to get them started. It also includes the new sewer line assessment tool. The group then discussed the Tyson tank being down for 5 to 6 weeks while it is being prepped and painted. Tom assured the board that HWU will be able to get by without the tank during rehab. He explained that it was taken down for a couple of days as a test, to make sure our water supply to Tyson would be adequate and it was.
E. BUSINESS

- **Action Report # 2020-12 – Four-Star Water Tank**

  Tom Williams advised that we had 13 bidders and that the bids were all over the place. Low bidder, G & L Tank Sandblasting and Coating, LLC, is a company that we have not worked with before, but references were checked, and he does not see a problem with using them for this project. Mr. Williams also noted that HWU will also be doing the additional consulting with Midsouth Tank for extra inspection during and after the painting process. He highlighted that on tank rehab projects HWU has done in the past, we’ve spent about $.83 cents per gallon. This compares to possibly $3 dollars per gallon to build a new tank. The board agreed that it is money well spent.

  Motion was made by Commissioner Gary Jennings and seconded by Commissioner John Henderson to approve Action Report 2020-12 – Four Star Water Tank Rehab project as detailed in the written Action Report. All commissioners voted aye, no opposition. Motion carried.

- **Action Report # 2020-13 – Myrene Drive FM Project**

  Tom Williams explained to the board that this is the force main project that connects the Myrene Drive pump station to the Atkinson Park pump station. He noted that we accepted bids on this project 2 different ways. Traditional cut and cover construction and then directional drilling for a large part of it. He noted that the bid forms were a little bit confusing and we had 2 good bidders. Deig Brothers was low bidder and is a contractor that we have worked with in the past. Using directional drilling on this project will save us about $320k. Mr. Williams advised that while running the section along Elm Street, HWU will have to shut down the road due to safety concerns.

  Motion was made by Commissioner Gary Jennings and seconded by Commissioner John Henderson to approve Action Report 2020-13 – Myrene Drive Force Main Replacement project as detailed in the written Action Report. All commissioners voted aye, no opposition. Motion carried.

- **Action Report # 2020-14 – Chemical Bids – Magnesium**

  Kathy Manker pointed out to the board that this was a decrease in cost, a savings of $13k a year.

  Motion was made by Commissioner John Henderson and seconded by Commissioner Julie Wischer to approve Action Report 2020-14 – Chemical Bids– Magnesium as detailed in the written Action Report. All commissioners voted aye, no opposition. Motion carried.
F. EXECUTIVE SESSION – Requested

• To Discuss Matter Regarding Future Acquisition or Sale of Real Property, Pursuant to KRS 61.810 (1) (b)

Motion was made by Commissioner George Jones to go into Executive Session to discuss matters regarding future acquisition or sale of real property pursuant to KRS 61.810 (1) (b). Commissioner John Henderson seconded the motion. Motion passed with all ayes, no opposition.

Upon return from Executive Session, motion to adjourn was made by Commissioner Julie Wischer, seconded by Commissioner John Henderson, with all commissioners voting aye, no opposition. Motion carried.

The next regularly scheduled board meeting will be held on Monday, July 20, 2020.
FINANCIAL REPORT
PLANT OPERATIONS REPORT
Plant Operations Report
7-20-2020

General Operations:

A. Treatment Plants – Overview:

1. Operations:

   In continued cooperation with the Henderson County School System, we have reminded them that flushing the internal lines of each school before staff and students return should be a top priority. We also offered to run any tests that they request. They were appreciative of the reminder and gave assurance that it would be done. A couple of years ago, after an extensive study, we developed an SOP for them to follow.

2. System Water Quality:

   Water Quality Calls: There were two water quality calls in June.

   2820 Sunset Lane: The customer called stating they were seeing black residue in their toilet a few days after cleaning. The residue was isolated to the bowl and was not present in the tank or any other water sources. The water quality specialist tested the hydrants before and after the customer’s house to ensure water quality. All chemistries and the BacT results were normal. The customer was satisfied that the issue was not related to the water.

   1795 Old Madisonville Road: A customer called stating that the water had a bleach or chemical smell since moving in. She had small children in the home and wanted to ensure the water was safe. The customer took samples from her kitchen and gave it to the water quality specialist for chemistry and ATP analysis. Chemistries and chlorine residuals were in normal range, other than slightly elevated iron. Upon further investigation it was determined the house had been vacant for approximately six months. The water quality specialist explained that this could account for the slightly higher iron level and advised the customer to flush all internal lines. The customer was happy to hear that her water was safe.

3. Personnel:

   Staffing Levels:

   a. Water Quality: Full operational staff.


   c. North Wastewater: Full operational staff.

   d. South Water: Due to personal issues which were not job related, the recently hired relief shift operator chose to resign. We are currently in the process of hiring for this position again.

   e. South Wastewater: Full operational staff.

g. Treatment Intern: This position is currently unfilled.

4. Projects:

**SWTP Secondary:** Final inspection of the SWTP Secondary was conducted on Monday, July 13th. Though there were a few minor punch list items to address, the tank is complete and will be filled and put back into service.

With the completion of this project, the secondary should remain in good shape for many years. This project has gone particularly well, especially considering the current pandemic situation and the large amount of rain we have received during the project. Mohon Blasting and Coating did an excellent job. They were a skilled and professional workforce that was a pleasure to work with.

**Safety:** Though safety is always being addressed, after the recent safety inspection with Martin Safety, operations staff have been making efforts to correct some of the issues which would be
considered “low hanging fruit.” These efforts include additional signage, updated SDS cabinet
labeling, reviewing and updating SDS content, and reviewing chemical handling procedures. In
addition, staff will soon be installing ear protection stations and flammable materials cabinets
within the facilities.

Plant Beautification Efforts: This effort is continuing throughout the plants on an ongoing basis.

B. North WTP:

1. Treatment Quality:

   Water Quality Goals: All regulatory goals were met.

2. Operations & Projects:

   Treatment Challenges: Several large rain events this month caused the river to change quickly and
turbidity to fluctuate. Operations personnel worked diligently to ensure the highest quality of
water possible during this unusually wet season.

   Operations: Work continues on projects that have slowed this year due to pandemic concerns.
These include finishing the Bleach Feed room update and finishing filter evaluations.

3. Average Water Treated and Water Pumped Data Trend:

   ![Graph showing average water treated and pumped data trend]

   Note: These values are current readings, but the actual billed readings are approximately 45 days behind.

C. North WWTP:

1. Treatment Quality:

   Effluent Quality: All regulatory treatment goals were met.

   Biosolids Quality & Hauling: Hazex continues to meet hauling demands.

2. Operations & Projects:

   Demolition: Work at the old primary basins has progressed well with stoppages due to rain. The
old headworks is being considered for demo work next.
Actuators: Two slide gate actuators are moving through the purchasing process now, one to replace an inoperable existing one and a new one for an aeration influent. One of these was received this month and will be installed at earliest opportunity.

Dry weather flow: Several heavy rain events have kept flows above average for this time of year. Operations staff are preparing for the lower flows that we normally see during the dry summer months.

D. South WTP:

1. Treatment Quality:

   Water Quality Goals: All regulatory goals were met.

2. Operations & Projects:

   Treatment Challenges: Several large rain events this month caused the river to change quickly, making Turbidity and Total Organic Carbon fluctuate. Operations staff has it well in hand and under control.

   Carbon Compressor: The air compressor used for the carbon feed system had to be replaced this month due to failure. Given that this compressor is vital and resides in an environment which is quite dusty, operations staff is moving the compressor to a small building outside of the carbon building. This building is being constructed by operations staff and primarily out of materials already on site. This should help ensure the new compressor lasts for a longer time frame.

3. Average Water Treated and Water Pumped Data Trend:

   ![Graph showing water treated and water pumped data trend]

   Note: These values are current readings, but the actual billed readings are approximately 45 days behind.

E. South WWTP:

1. Treatment Quality:

   Effluent Quality: The plant continues to perform well, and all regulatory goals were met.

   Biosolids Quality: Hazex continues to meet hauling demands.
2. **Operations & Projects:**

   **Magnesium Hydroxide:** As approved during the last board meeting, we are now using a new supplier for Magnesium Hydroxide. There have been some issues with settling in the lines, causing us to feed more than normal. We are working with the vendor on a solution; however, should an effective solution not be realized, we will need to disqualify the vendor and re-bid.

   **Sinkhole:** The sinkhole reported last month is a settling issue, confirmed by camera inspection. Fill dirt has been requested and should arrive soon.

   **Blowers:** Maintenance continues to work on the aeration blowers that are out of service. They have a game plan and are working toward having them all in service ensuring redundancy. This became particularly important this month when Blower #5 failed and had to be sent for repairs.

F. **Plant & Pump Station Maintenance:**

   **NWWTP-Digester #1:** Repairs to the digester have started. Diffusers have been replaced, and piping is being laid.

   **NWTP-Mud Pump #2:** One of the pumps failed, and we are in the process of making some wet well repairs and replacing the pump. This pump has been received, and we will complete the installation and repairs within the next few weeks.

   **NWTP-Backwash Actuators:** Both actuators have been received, and we are currently working with Bowling Inc. to schedule the installs.

   **NWTP Basin 1 Drawdown Actuator:** The new valve, actuator, and the extension tubes have been ordered from King Mechanical. They will be installed once they arrive. We have met with King Mechanical twice now, as they are beginning to fabricate the extension tubes. The actuator and plug have been received and once the tubes are received, we will begin the installation.

   **Industrial Park Pump Station:** Pump #2 was found to be single-phased due to a screw backing out inside one of the starters. This pump has been received and will be installed next week.

   **SWWTP- Decant Pump Station:** Both pumps were shorts to ground and determined to be non-repairable. Quotes are being obtained, and we will be ordering two new pumps. We have a backup pump that is being used until the new ones are installed.

   **Fair Street Booster:** The new conduit that was installed by Timmons Electric has either failed or broken underground and allowed water to get into the motor, causing the motor to short. We pulled the whole pump out of the station and blind-flanged the piping. The pump is currently at Electric Motors for repair, and maintenance staff has met with Sam Timmons about the conduit. Repairs are being scheduled, and the other pump is maintaining the college pressure zone.

   **Atkinson Park Pump Station:** We replaced the impeller on pump #1 due to cavitation and general wear. We are hoping the new impeller cuts down on the number of times the pump needs to be cleared of the “Flushable” wipes.
G. Pretreatment Program & FOG Services:

**Industrial Pretreatment Activity:** Sampling for third quarter and inspections were conducted this past month by Hall Environmental.

**Notice of Violation Issued:** A NOV was issued to F5 Car Wash on Sand Lane (in the Sureway parking lot). The drain pits look like they have not been cleaned out in, well, since it was put in. Rocks and debris are making their way into the storm system due to this. We are awaiting a reply from the owner.

**FOG Program:** FOG inspections were conducted earlier this month. More will be performed the last week of July to try to hit restaurants that have not fully opened yet.

H. Distribution Operator Update:

**Fire Hydrant Flushing:** Flushing has been completed. We will now be following up on hydrants that need repair or maintenance, found during flushing.
FIELD OPERATIONS REPORT
General Operations:

A. Overview:

1. Operational:

   **Valve Exercising**: We’ve needed to implement a valve-exercising program for a long time, have talked about it at length, and have even started (and stopped) a couple of times, but now we’re getting serious about it. Even if we were to have an entirely new distribution system, a valve-exercising program is a critical component to ensuring system reliability and emergency response success. In other words, we’re not only asking for trouble if we don’t do this, but we are intentionally accelerating towards it. Some of our experienced crew members have (maybe more aptly) called this a “Valve Replacement Program” instead of a Valve Exercising Program. If that’s the case, it just serves to further prove the critical nature of moving forward.

   A new valve exercise trailer arrived on Wednesday, July 8, 2020, from Brown Equipment Company in Evansville.

   We’re renting this unit for a month to see how we like it. After that, we have a truck-mounted unit that we’ll rent for the following month, for comparison. Once it’s decided which is most functional for us, we’ll proceed towards purchasing.

   Our intent is to have a dedicated crew exercising valves for nine months of the year, taking a break over the winter.
Mini-Combo Combination Cleaner: The Vac Truck is one of the heaviest and hardest used pieces of equipment in our fleet. A new full size vactor truck was purchased about two years ago, due to the one we had reaching the end of its useful life. The intention was that after 5 years into our new truck, an additional new truck would be bought allowing us to cycle out a truck every 10 years.

The full size trucks are complex. They require training, familiarity, and a CDL to operate, which makes it difficult to have rounded training among all of our crew members.

There are smaller trucks available that are far more simplistic and versatile. Being about half the size, a CDL is not required. The cost is between $100K - $200K less.

We believe that we can operate efficiently with a full-sized unit (which we already have) and one of these smaller ones. If the need arises for an additional larger unit on a job, it’s usually a temporal need and can be rented easily.

Specifications have been submitted for the purchase of one of these units.
2. Personnel:

   Specialist: Fully staffed.
   
   Collection System Operator: Pending.
   
   Utility System Worker 1: Fully staffed.
   
   Utility System Worker 2: Fully staffed.
   
   Utility System Worker 3: Fully staffed.
   
   Crew Leader: Fully staffed.

B. Automation Department:

   Myrene Dr: UPDATE: Galloway Electric found a configuration error on the soft start units and made a correction. So far there have been no issues with the pumps starting as they should.
   
   NWTP Digester 3&4: We have removed the radio/RTU and installed a WAGO PLC at the digesters for testing and eventual use at all radio/RTU locations. So far everything is working great with 100ms response time. The only downfall so far has been the plant Wi-Fi, which for some reason resets itself every 15 minutes looking for a better signal. We are still working on that issue.
   
   Bent Creek / Russell Dr. PS: We assisted Maintenance and Galloway Electric in upgrading the pump control panels at these locations. This should reduce downtime by simplifying and updating the controls.
   
   City-Wide SCADA Wireless: We have received a quote from MASH Networks and are reviewing the information.

C. SOC General / HWU General:

   Other Capital items that are in the queue for replacement of current end-of-life equipment:
   
   - Mini Backhoe ($40,000): This will be a replacement for a current mini.
   
   - Sewer Inspection Push Camera Unit ($25,000): This will be a replacement for a current system that is at end-of-life.
   
   - Trac-Hoe ($280,000): This is tentative but would be a replacement for two units at the end-of-life. Not having a dependable unit runs the risk of not being able to respond quickly to emergency line breaks/repairs. However, it is not a routinely needed piece of equipment, making it hard to allocate the amount of money towards purchasing/leasing. With an infrastructure that’s aging and unpredictable, we are discussing if deferring this cost is an acceptable risk (seeing that breaks NEVER happen during normal business hours).
D. Customer Service: Customer Service Calls and Work Orders (NORTH):

1. The tabulation below shows calls we responded to last month. This tabulation by no means represents all of the calls that came in. We provided the following services:

<table>
<thead>
<tr>
<th>Water Line and Service Maintenance</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Main Repairs</td>
<td>3</td>
</tr>
<tr>
<td>Water Service Line Repairs</td>
<td>1</td>
</tr>
<tr>
<td>Water Meter Inspection</td>
<td>22</td>
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<tr>
<td>Water Meter Changes</td>
<td>17</td>
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<tr>
<td>Water Meter Repair</td>
<td>3</td>
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<tr>
<td>Water Meter Disconnected</td>
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<tr>
<td>Water Meter Reposition</td>
<td>1</td>
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<tr>
<td>Water Meter Box Cleaned</td>
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<tr>
<td>Water Meter Locate</td>
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<tr>
<td>Water Meter Leak Detection</td>
<td>19</td>
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<tr>
<td>Water Meter Consumption Check</td>
<td>4</td>
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<tr>
<td>Fire Hydrant Repairs</td>
<td>9</td>
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<tr>
<td>Low Water Pressure Calls</td>
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<tr>
<td>Water Leak Calls</td>
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<td>Water Quality Calls</td>
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<td>No Water Calls</td>
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<tr>
<td>Turn Water Off/On Calls</td>
<td>2</td>
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<tr>
<td>Install Temporary Hydrants</td>
<td>5</td>
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</tbody>
</table>

| Water Main Repairs                                  | 3    |
| Water Service Line Repairs                          | 1    |
| Water Meter Inspection                              | 22   |
| Water Meter Changes                                 | 17   |
| Water Meter Repair                                  | 3    |
| Water Meter Disconnected                            | 2    |
| Water Meter Reposition                              | 1    |
| Water Meter Box Cleaned                             | 6    |
| Water Meter Locate                                  | 1    |
| Water Meter Leak Detection                          | 19   |
| Water Meter Consumption Check                       | 4    |
| Fire Hydrant Repairs                                | 9    |
| Low Water Pressure Calls                            | 3    |
| Water Leak Calls                                    | 15   |
| Water Quality Calls                                 | 2    |
| No Water Calls                                      | 2    |
| Turn Water Off/On Calls                             | 2    |
| Install Temporary Hydrants                          | 5    |

<table>
<thead>
<tr>
<th>Sewer Line and Service Maintenance</th>
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<td>Sewer Main Repairs</td>
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<td>Sewer Service Line Repairs</td>
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<td>Sewer Taps</td>
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<td>Sewer Tap Locates</td>
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<td>Water Meter Installation</td>
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<table>
<thead>
<tr>
<th>Miscellaneous Services</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
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<td>Sink Hole Calls</td>
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<tr>
<td>Inspect Misc. Items</td>
<td>13</td>
</tr>
<tr>
<td>Smoke Test Lines</td>
<td>0</td>
</tr>
<tr>
<td>Camera Inspect Lines</td>
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<table>
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<tr>
<th>Regulatory Issues</th>
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<td>Downspout Removal Letters Mailed</td>
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<tr>
<td>Downspout Letters Mailed To Date</td>
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<tr>
<td>Downspout Removal Requests: Total Complied and Re-inspected</td>
<td>222</td>
</tr>
</tbody>
</table>

HWU Service Call Summary

1 - Water Line and Service Maintenance (Total Calls in 18 Sub-Categories)
2 - Stormwater Maintenance (Total Calls in 4 Sub-Categories)
3 - Pump Station Maintenance (Total Calls in 4 Sub-Categories)
4 - Sewer Line and Service Maintenance (Total Calls in 10 Sub-Categories)
5 - New Services (Total Calls in 4 Sub-Categories)
6 - Miscellaneous Services (Total Calls in 4 Sub-Categories)
7 - Regulatory Issues (Downspout Letters Mailed)
2. Rolling 2-Year History of Monthly HWU Service Calls.

![Work Orders Opened/Closed Graph]

<table>
<thead>
<tr>
<th>Month</th>
<th>Work Orders Opened</th>
<th>Work Orders Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2018</td>
<td>230</td>
<td>180</td>
</tr>
<tr>
<td>July 2018</td>
<td>250</td>
<td>200</td>
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<tr>
<td>August 2018</td>
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<tr>
<td>September 2018</td>
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<td>350</td>
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<tr>
<td>February 2019</td>
<td>420</td>
<td>370</td>
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<tr>
<td>March 2019</td>
<td>440</td>
<td>390</td>
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<td>April 2019</td>
<td>460</td>
<td>410</td>
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<td>450</td>
</tr>
<tr>
<td>July 2019</td>
<td>520</td>
<td>470</td>
</tr>
<tr>
<td>August 2019</td>
<td>540</td>
<td>490</td>
</tr>
<tr>
<td>September 2019</td>
<td>560</td>
<td>510</td>
</tr>
<tr>
<td>October 2019</td>
<td>580</td>
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<tr>
<td>November 2019</td>
<td>600</td>
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<tr>
<td>December 2019</td>
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<td>570</td>
</tr>
<tr>
<td>January 2020</td>
<td>640</td>
<td>590</td>
</tr>
<tr>
<td>February 2020</td>
<td>660</td>
<td>610</td>
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<tr>
<td>March 2020</td>
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<td>630</td>
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<td>April 2020</td>
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<td>650</td>
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<td>May 2020</td>
<td>720</td>
<td>670</td>
</tr>
<tr>
<td>June 2020</td>
<td>740</td>
<td>690</td>
</tr>
</tbody>
</table>

E. Collection System:

Crews are performing routine maintenance and repairs.

Tom and Ken continue to coordinate with the Ellis Park design team on where and how their wastewater may discharge into our collection system. **(No Recent Updates)**

F. Distribution System:

After getting all of the lines exposed on the Seller’s Ditch Project and seeing how little room we had to work with, we thought it would be best to Insta-Valve the line on both sides of the creek and then cut out enough of the old main to just pull the new poly main over into line with it and connect it using a 12” flange x 10” MJ reducer. Trying to do it how we had originally planned would not work. We were going to use two 45-degree fittings, but once they were put together, they would not align the two pipes. Those parts are on order and should be in any day.

Ian Snow and Warner Mattingly are investigating some areas where past fire hydrant flow tests and our distribution system model indicate possible blockages such as broken or partially closed valves. **(No Recent Updates)**

G. Stormwater Projects:

Crews are performing routine maintenance and repairs.
H. **Stormwater Phase II:**

The annual audit conducted by KDOW was held via conference call this year due to COVID-19. The call went very well, with only the normal supporting documentation being requested. August 7th was established as the due date for this supporting documentation. The Lighthouse Storage project at 2429 US 60 E adequately resolved the issue of water in their detention basin being contaminated with Portland cement, with water samples being tested by HWU lab staff.

I. **Information Systems Department:**

**KnowBe4 Security Awareness Training:** We merged training portals with the City. The advantage to HWU was lower annual cost and access to more training materials. In addition to Cybersecurity, we now can use the training portal for HR and Safety related topics.

**FirstNet (Update):** We have converted several iPads to FirstNet. So far it has been a painless process with no issues.

**SCADA Wireless (Update):** The wireless contractor gave us a parts list and quote. We are soliciting competitive quotes and will decide how to proceed soon.

J. **GIS Department:**

No updates to report.
Russell Sights shared the following comments regarding his experience with HWU:

"I hope you are doing well. Late Friday afternoon, June 26, Sharon and I came home to find water covering the water meter and standing in the yard. I called your people. My contact was with Jerry and Joni at the north plant and Aaron responded to our request. He was at our location within twenty five minutes of our call and had the meter repaired in approximately thirty minutes.

The service was prompt and efficient and Aaron not only did the work correctly but also cleaned up the area of the yard when he was finished with the actual work.

This is the first time I have called HWU personally for assistance at our residence. I just wanted to be sure you know that all your people did a great job and we were impressed."
A. Water Projects

1. South Water & Wastewater Plants – Influent/Effluent Lines and River Intake: (No Change)
   Plans to implement our 2014 study to reconstruct our potable influent and wastewater effluent lines, as well as modifications to the Big Rivers intake structure on the Green River were developed by J.R. Wauford Engineering.

   HWU had planned to bid the Raw Water Influent and Effluent line portion of the project during March 2020, with bids being due in April 2020, and construction to follow during the summer of 2020. The modifications to Big Rivers Intake structure were scheduled to begin the following year in the summer of 2021. However, during mid-march, A Big Rivers representative contacted us and stated that Big Rivers management had decided that they would not move forward with any project to allow us to locate raw water pumps in their intake structure, or any other modifications to our current agreement with them.

   HWU has worked with Wauford since that time, and has arrived at a preliminary plan to locate a new, HWU-owned Raw Water Intake on the Green River, near Sebree, specifically near the KY 56 bridge across the River, east of the Sebree interchange on I-69. This location allows us to be upstream of the hazards of a leaking ash landfill on the Big Rivers property. We anticipate a design effort for this project taking us late into calendar year 2020, so that construction of the new intake might be accomplished in the 2020-2021 fiscal year. Design and bidding costs for the new intake structure and influent/effluent lines is expected to be $478,000, with the first $100,000 in funds being appropriated from the current 2019-2020 Capital Budget.

   HWU realizes moving upstream will cause a large increase in cost, due to the increased length of the raw water supply line and having to construct a new intake structure. We believe some of the $8.0 million new project cost will come from bonding, grants and our cash reserves.

   Tom met with Tyson on the 10th of June to brief them on this project, the Tyson Tank painting project, and the Clearwell.

2. South Main Street Water Transmission Main – Hancock to Yeaman: (No change)
   Strand Associates has prepared plans for this project, which is estimated at $ 1.5 to 1.8 million and will be critical if a large water user locates in the South/College pressure zone (Riverport area). At this point, funds for this project are planned for FY 2020, and our model shows it to be a priority, even without new industrial use in the South/College pressure zone.

3. South Water Treatment Plant – Backwash Pump System and New Clearwell: (No change)
   This project came out of an operational review of the South WTP, which shows that the filters undergo backwash for extended periods, reducing the production of water for sale. To speed up the backwash process, we have designed a pumped backwash system that will provide more head differential, speeding the process and allowing the filters to be returned to service much faster after cleaning. Project will cost around $ 420,000 and is our next candidate project for a grant application, which will include the replacement of the Clearwell, at an additional $ 940,000.
4. **Residential Meter Replacement:**
   Board approval granted in August 2019 to move forward with replacement of up to 1,000 meters in this fiscal year. An RFP document went out on February 5th and six proposals were received on March 18th. We’ve reviewed the proposals and put together a scoring grid. We met with both companies separately in June to discuss their proposals. The decision was made to award the contact to United Systems after speaking with the two low bidders. United Systems is doing a propagation study to determine exactly how many repeaters and collectors we’ll need to read the meters. That study is expected to be completed during the week of July 13-17. It has been a slow process, but we feel this is time well spent, as the total investment in meters and AMI/AMR may approach $ 3 million over time. There is a BAR that will be submitted in the July meeting.

5. **Sellars Ditch Water Main Crossing:**
   This bored replacement for a 10” main parallel to Old Madisonville Road was approved at the September meeting. We had a similar situation for a downstream crossing in 2017, parallel to U.S. 41A, and successfully bored that in an emergency situation. The current project involves similar work, as the existing main, circa 1967, has become exposed by erosion of the creek bank.

   Mofield Brothers Construction completed the Sellers Ditch installation of 660 feet of HDPE Water Main during the last week of February with no issues. HWU was expected to begin connecting the newly installed HDPE piping to our existing water main during the week of March 16th-20th, but the COVID-19 crisis delayed our work. HWU is progressing with work on this project. We’re waiting on a few valves to be delivered in order to finish. We expect to finish this work during July 2020.

6. **South Water Treatment Plant – Painting/Repair of Secondary Clarifier:**
   The Secondary Clarifier at the South WTP, original to the plant in 1996, is being blasted, painted and repaired under a contract with Mohon Blastings and Coatings of Beechmont, KY. This project is in the construction phase with completion of work and final inspection taking place during the week of July 13-17.

7. **Washington / Vine Water Main: (No Change)**
   We have a project under design with Strand, that picks up the new 20” line at Washington/Green, and runs it down Washington to Alvasia, and across to the Vine Street line. This Project provides an alternate pathway in the HWU distribution system to get water to the Vine Street tank. The tank is currently served by a 20” cast iron main that runs down Green Street, is more than 100 years old, and has experienced several breaks. The new line takes a different pathway to the tank and allows the tank to be filled if the old line breaks and is shut down. The project cost breakdown is as follows: Design/Bidding Services: $ 70,600; Construction Engineering: $ 19,300; Estimated Construction Cost: $ 1.5 M. HWU expects this project to start in 3-5 years, with an April 2024 bid date, June 2024 construction date, and be completed in October 2024.

   HWU received approval for this project on May 22nd from KDOM. Permit Instructions were also sent as a part of the project approval from KDOM.

B. **Wastewater Projects**

8. **Atkinson Sewershed Study - Myrene Drive & Atkinson Park Sewer Pump Station and Force Mains:**
   Official startup of the new Pump Station took place during the first week of March 2020 with M. Bowling Construction turning the station over to HWU shortly thereafter. The new Myrene Drive
Pump Station is now fully functional and complete. Minor work remains, including landscape work and seeding.

The Myrene Drive Force Main project, which runs from this station to the Atkinson Park Pump Station, consists of over 4,600 of 12” pipe, installed along Sunset Lane, Johnson Drive, Springwood Drive, and North Elm Street. Bids were received on June 4th from two separate Contractors. The successful bidder was Deig Brothers of Evansville, IN at $1.3 million.

To lessen construction impact, contractor Deig Brothers will be installing most of the line by “directional drilling,” in which shallow bore pits are dug along the alignment, and the pipe is drilled underground between those pits. This avoids most of the disruption and damage caused by digging up streets, driveways and yards.

For the section of this project on North Elm Street from Retting Road south to the entrance to Park Field, narrow right-of-way and poor ground conditions make traditional open cut construction more cost effective. That section will be excavated just off the west side of North Elm Street.

The tentative start date for this project is set for July 27.

C. Stormwater and Separation Projects

9. Countryview Subdivision Stormwater Project: (No change)

Phase one of this project was completed during the calendar year 2019, including paving.

Work has also begun on design of the next phase, with Qk4 leading that effort. Our plan is to design in this FY, and jointly fund with the City a next phase of construction in the 2020-2021 FY, probably bidding that in summer of 2020.

10. Atkinson Street Stormwater Project – Helm to Clay: (No Change)

We have designed a project to address standing water on the portion of Atkinson Street near the offices of Home Oil & Gas, which occurs during many rain events. Heavy traffic in this area throws water from the street up against and into Home Oil’s offices. The project separates a small area from the combined system, which is over-taxed during storms, and redirects the flow in a dedicated stormwater pipe to a ditch behind the Home Oil complex. Home Oil has dedicated an easement for this work, and we are working on specifications and bid documents in hopes of getting this done in 2020.

11. Chestnut/Norris Stormwater Project:

This small stormwater project will allow us to separate 9.1 acres of land out of the combined sewer system and reduce overflows at the Ragan Street CSO location. Bids were received on 13 May, and the project was approved during the May Board Meeting. M. Bowling began work on this project during the week of June 1-5. With the large amount of rain we’ve had in the past few weeks, we’ve decided to add additional stormwater piping near the Norris Lane section of the project to help better drain the area. Work is progressing well with an expected completion date before the end of July.

12. Center & Julia Phase III-B Stormwater Project: (No Change)

This stormwater project includes a crossing under the CSX tracks near the old depot. We have signed a task order with J.R. Wauford for updated survey and design work. We have provided insurance information to CSX for our permit, and have received a revised invoice, reflecting savings from insurance we already carry that was included on the first invoice; this cut the cost from about $ 40k
to $ 20,400. The permit has a five-year time limit to start construction, so we’ve moved the project up in the Strategic Plan to accommodate that timeframe.

HWU has received the approved Stream Construction permit and the Water Quality Certification from KDOW. We’ve met with all the property owners and have all easements signed. We’ve received the encroachment permit for the small parcel that KYTC owns at the corner of 3rd and Clark Streets. We’ve received the signed Temporary Right of Entry Agreement from CSX. The last item- needed is the Army Corps of Engineers permit, which is being held up by the State Historic Preservation Officer (SHPO). The SHPO is wanting us to document the “historic” 100 year-old box culvert under the tracks.

D. General Administrative / SOC

13. Install Backup Generators at Critical HWU locations (No Change)

Three I Engineering has prepared plans to install Backup Generators at the Main Office, North Water Plant, North Wastewater Plant, South Water Plant, and South Wastewater Plant. The funding will come from a 138k grant that was approved from the Kentucky Office of Homeland Security. We’re currently waiting on the signing of the grant application and a few other formalities and will be advertising for bids to furnish and install Emergency Generators at these four (4) locations. The due date for the bids will hopefully be in July.
HUMAN RESOURCE & SAFETY REPORT
HWU Human Resources Summary: July 20, 2020

**Staffing Levels:**

1. Water Treatment Operator I [1 SWTP position]: manager speaking with candidate again
2. Collection System Operator [1 position]: waiting on direction from department
3. Locator/Geospatial Technician [1 position]: waiting on director from department
4. Project Engineer [1 position]: summer intern being vetted for position
5. Administrative Assistant [1 position]: no request for action
6. Treatment Plants – Seasonal Worker [4 positions]: no request for action
7. Seasonal Treatment Intern [2 positions]: no request for action

**Safety Report (as of 6/30/2020):**

<table>
<thead>
<tr>
<th>Incident Rates</th>
<th>HWU</th>
<th>Change</th>
<th>2012 NAICS 2213</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Recordable Rate</td>
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<td>0.00</td>
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<tr>
<td>DART Incident Rate</td>
<td>0.00</td>
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<td>1.4</td>
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<tr>
<td>DAFW Rate</td>
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<td>0.00</td>
<td>0.8</td>
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<td>Trans / Restrict. Rate</td>
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<td>0.00</td>
<td>0.6</td>
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<table>
<thead>
<tr>
<th>Hours Worked</th>
<th>76,266</th>
<th>+ 13,688</th>
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<tbody>
<tr>
<td>Total Cases</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Days Away/Restricted Time Cases</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Days Away From Work Cases</td>
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<tr>
<td>Actual # Days Away From Work</td>
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<tr>
<td>Transfer/Restricted Cases</td>
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</tr>
<tr>
<td>Actual #Days Restricted Duty</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- 2012 NAICS is the classification for Utilities: Water, Sewage, and other systems
- DART = Days Away, Restricted, or Transferred
- DAFW = Days Away From Work
- How incident rates are calculated: [(# Cases) x 200,000] / Employee Hours Worked
- Change data compared to data at the end of the previous month.

**Other:**

- The three pay periods (March 23 – May 3) for the rotating work schedules reflected the HWU employees directed to stay at-home were paid 4,775 hours a total of $92,354.23.

**Upcoming City-wide Events:**

- 76 of 82 HWU staff have completed the online drug & alcohol awareness training.
GENERAL MANAGER’S REPORT
General Manager Report  
20 July 2020

Regulatory Issues

Nothing to report.

COVID

We are back to full strength on the Field and Maintenance crews, as of 4 May, and note no problems so far. Crews and office staff continue to maintain physical separation as much as possible, and we are continuing disinfection and sanitization of surfaces, and other best practices. Offices reopened on 18 May, but that wasn’t a big deal, since we have little outside traffic. To date, negligible impact on our operations, and everyone seems to have adjusted to the new normal.

Capital Project – Allocations for Engineering

We awarded preliminary engineering work on three projects in May (Action Report 2020-09) and are allocating funds from the 2020-2021 fiscal years’ Capital Budget to one of them. The Granular Activated Carbon Filter project at the North Water Treatment Plant will be carried to a 10%, Preliminary Engineering Report stage, at a cost of $73,000. Strand Associates was our pick for this project.

Habitat for Humanity of Henderson

In accordance with long-standing policy, we will be waiving tap fees for two houses to be constructed by Habitat. They are located at 1233 Cumnock Street and 1535 Cumnock Street, both in the East End. The fees waived are $1,040 each for the water taps, and $1,155 for sewer taps, so the total charges and fees waived equal $4,390.

Service Fees and Surcharge Rate Tables

Our Board sets fees for services and for surcharges on industrial discharges, without City Commission approval. We changed the Sewer Use Ordinance in August 2019 to include computation of a surcharge for Chemical Oxygen Demand (COD), but at that time I failed to have us update the rate table that includes that surcharge. The updated Table E is included in the attached Service Fees, and we’d like your assent to insert the COD rate, which is $0.26 per pound, the same rate as TSS and BOD, and still set at the price it was at least 10 years ago.
Henderson Water & Sewer Commission
Service Fees

Table A
Water Tap Installation Fees
(Ready for Meter)
(Tap, service line, meter box, and meter setter only)

<table>
<thead>
<tr>
<th>Size of Meter</th>
<th>HWU Installed</th>
<th>Developer Installed (Inspection Fee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8” X 3/4” Meter</td>
<td>$840.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>1” Meter</td>
<td>$1,120.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>1 ½” Meter &amp; Larger</td>
<td>By HWU Actual Cost +15% ($1,200.00 Minimum)</td>
<td>$100.00</td>
</tr>
</tbody>
</table>

Table B
(Meter only)

Meter Setting Fees
(cost includes “Scan Read” meter)

<table>
<thead>
<tr>
<th>Size of Meter</th>
<th>Installation Fee (Includes the cost of the meter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8” X 3/4” Meter</td>
<td>$200.00</td>
</tr>
<tr>
<td>1” Meter</td>
<td>$300.00</td>
</tr>
<tr>
<td>1 ½” Meter &amp; Larger</td>
<td>By HWU Actual Cost +15% ($400.00 Minimum)</td>
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</tbody>
</table>

Approved May 15, 2006 by the Water & Sewer Commission
Effective on July 1, 2006
### Table C

**Fire Sprinkler System Tap Fee**

<table>
<thead>
<tr>
<th>Size of Connection</th>
<th>HWU Installed</th>
<th>Developer Installed (Inspection Fee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sizes</td>
<td>By HWU</td>
<td>$300.00</td>
</tr>
<tr>
<td></td>
<td>Actual Cost +15%</td>
<td>($1,500.00 Minimum)</td>
</tr>
</tbody>
</table>

### Table D

**Wastewater Tap Fee**

<table>
<thead>
<tr>
<th>Size of Connection</th>
<th>HWU Installed</th>
<th>Developer Installed (Inspection Fee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6”</td>
<td>$1,155.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>8” &amp; Larger</td>
<td>By HWU</td>
<td>$300.00</td>
</tr>
<tr>
<td></td>
<td>Actual Cost +15%</td>
<td>($1,500.00 Minimum)</td>
</tr>
<tr>
<td>6” Cleanout</td>
<td>$500</td>
<td>N/A</td>
</tr>
<tr>
<td>Installation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved June 16, 2014 by the Water & Sewer Commission
Effective on June 17, 2014
### Table E

<table>
<thead>
<tr>
<th>Waste Water Loading Surcharges (Cost Per Lb.)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD$_5$</td>
<td>$0.26</td>
</tr>
<tr>
<td>COD</td>
<td>$0.000.26</td>
</tr>
<tr>
<td>TSS</td>
<td>$0.26</td>
</tr>
<tr>
<td>NH$_3$-N</td>
<td>$0.53</td>
</tr>
<tr>
<td>Oil &amp; Grease (Total)</td>
<td>$0.26</td>
</tr>
</tbody>
</table>

### Table F

<table>
<thead>
<tr>
<th>Other Misc Fees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Septic Waste, Leachate Fees</td>
<td>$45.00 per 1,000 Gallons</td>
</tr>
<tr>
<td>Solids disposal fees for dry-beds</td>
<td>$200.00 per 1,000 Gallons</td>
</tr>
<tr>
<td>Other Special Wastewater or sludge</td>
<td>Determined by HWU on a case by case basis</td>
</tr>
</tbody>
</table>

### Table G & H Not Used

Approved **June 16, 2014July 20, 2020** by the Water & Sewer Commission Effective on **June 17, 2014July 21, 2020**
### Table I

**Development Review Fees**

<table>
<thead>
<tr>
<th></th>
<th>Water (Per Plan Foot of Line)</th>
<th>Sanitary Sewer (Per Plan Foot of Line)</th>
<th>Storm Sewer (Per Plan Foot of Line/Ditch)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Construction Drawings Review Cost</td>
<td>$0.14</td>
<td>Construction Drawings Review Cost</td>
</tr>
<tr>
<td></td>
<td>Construction Phase Engineering Cost</td>
<td>0.05</td>
<td>Construction Phase Engineering Cost</td>
</tr>
<tr>
<td>Subtotal Water Per Foot of Line</td>
<td>$0.19</td>
<td>Subtotal Sanitary Sewer Per Foot of Line</td>
<td>$0.23</td>
</tr>
<tr>
<td></td>
<td>Subtotal Storm Sewer Per Foot of Line/Ditch</td>
<td>$0.29</td>
<td></td>
</tr>
</tbody>
</table>

These fees will be collected by the Planning Commission at the approval of the final plat.

Approved May 15, 2006 by the Water & Sewer Commission  
Effective upon approval from the Henderson City County Planning Commission
<table>
<thead>
<tr>
<th>Table J</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development Inspection Fees</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Water (Per Plan Foot of Line)</strong></td>
</tr>
<tr>
<td>Field Inspection Cost</td>
</tr>
<tr>
<td>GPS Field Measurements</td>
</tr>
<tr>
<td><strong>Subtotal Water Per Foot of Line</strong></td>
</tr>
<tr>
<td><strong>Sanitary Sewer (Per Plan Foot of Line)</strong></td>
</tr>
<tr>
<td>Field Inspection Cost</td>
</tr>
<tr>
<td>Gravity Sewer Line CCTV Inspection</td>
</tr>
<tr>
<td>GPS Field Measurements</td>
</tr>
<tr>
<td><strong>Subtotal Sanitary Sewer Per Foot of Line</strong></td>
</tr>
<tr>
<td><strong>Storm Sewer (Per Plan Foot of Line/Ditch)</strong></td>
</tr>
<tr>
<td>Field Inspection Cost</td>
</tr>
<tr>
<td>Gravity Sewer Line CCTV Inspection</td>
</tr>
<tr>
<td>GPS Field Measurements</td>
</tr>
<tr>
<td><strong>Subtotal Storm Sewer Per Foot of Line/Ditch</strong></td>
</tr>
</tbody>
</table>

These fees will be collected by the Planning Commission at the approval of the final plat.

Approved May 15, 2006 by the Water & Sewer Commission
Effective upon approval from the Henderson City County Planning Commission
BUSINESS

- Action Report # 2020-17 – Final Design of Sand Lane Pump Station
Henderson Water Utility  
Action Report #2020 - 15

To: Henderson Water & Sewer Commission  
From: Tom Williams, P.E., General Manager  
Subject: Design Services – Electrical Engineering  
Date: 20 July 2020

Background:

• We issued Requests for Proposals to engineering firms in May for two future projects in our systems that require electrical engineering services. Several responses were received on each RFP.

• The projects, and our choices for consultants to design them, are:
  ➢ Solar Power Project at the North Wastewater Treatment Plant – prepare design report and plans assessing layout/location on the existing plant site and including payback analysis and cost estimates. This project is made possible by HMPL’s adoption of a “Distributed Energy Generation” rate, which may lead to savings on power use at this plant. Being awarded to GCC Engineers, LLC, of Paducah. Schematic design up through an ROI analysis will be performed for $ 6,500.
  ➢ Transformer Project – North Wastewater Treatment Plant – HMPL plans to move the pole mounted transformers for the blower buildings to a ground-mount arrangement, making them less susceptible to damage from wind and weather. We will need to make electrical modifications to the building services, and that design is beyond our capacity internally. Three I Design of Evansville will lead this effort.
  ➢ Miscellaneous Electrical Engineering Services: We’ve included this in the RFP, since we do occasionally require some help in this area of engineering practice. Three I Design was selected to fulfill this “stand-by” role.

Legal & Financial Considerations:

• Procurements necessary for the completion of this work have and will follow the Kentucky Model Procurement Code.

Recommendations & Approvals:

• Board approval authorizes all work necessary to initiate these projects, including issuance of any bids, purchase orders, engineering services, task orders, change orders, easements, or other authorizations required.

• We will return to the Board with updated plans and cost estimates prior to bidding any projects, and will request your approval, prior to initiating construction.

Respectfully Submitted for Approval:

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Tom Williams, P.E.
General Manager

Commission Action – 20 July 2020

PASSED:_____________ FAILED:_____________ TABLED:_____________
To: Henderson Water & Sewer Commission  
From: Tom Williams, P.E., General Manager  
Subject: Residential Water Meter Project – FY 2020  
Project No: 22.1802.0108  
Date: 20 July 2020

**Background:**
- *This Action Report supplements Action Report 2019-25, approved on 19 August 2019, which authorized the start of a meter replacement program.*
- We have approximately 11,100 water meter accounts, with about 10,500 of those being smaller residential meters in the 5/8-inch (nominal) size. We have spotty information available on the age of those meters, but we have not replaced large numbers of meters in memory (20+ years). Inventory records show that, over the last three years, we averaged replacement of about 150 of the smaller meters, annually.
- For larger meters (3” and above, numbering around 65) we have a program of regular testing, calibration and replacement.
- We’ve discussed several times over the last few years the pros and cons of installing a “smart meter” system, with radio reads, cell phone reads, or even an area network arrangement where the meters talk to each other and chain back to a central point. All these systems have additional costs for infrastructure, software, and people to analyze the data, and we’ve not been able to make a business case for that additional investment. Also, meter technology has undergone substantial change over the last few years, so every time we looked at these systems, things were in flux.
- We have researched meter types and styles and have settled on ultrasonic meters as the best technology choice. These meters have no moving internal parts, are more reliable than the displacement-style meters we currently use, and they come with a 20-year accuracy guarantee.
- We appropriated $ 160,000 in Action Report 2019-25 to begin the process of meter installation.

**New Developments:**
- Further research and conversations with meter reps and other utilities have led us to issue a Request for Proposals (RFP) to determine if now is the time to invest in either Automated Meter Reading (AMR) or a full Advanced Metering Infrastructure (AMI) system. AMR consists of meters that can be read by “drive-by” means, and AMI is a more robust system that allows two-way radio communication with the meters through a fixed system of data collectors and repeaters. AMR allows reads on demand and has other features that can enhance our ability to monitor water quality and detect leaks.
- Both systems reduce the need for personnel to open lids and physically read meters, so there is the potential for efficiency gains with these new systems, possibly lowering the costs of meter servicing and reading that we pay to the City in our monthly fee for Administrative Services.
- There were six responses to the RFP, with different types of systems proposed and detailed cost information, both for the initial costs of the meters and associated radio equipment, for a central meter data management system, for either drive-by or fixed reading equipment, and for integration of the new system with the City’s existing billing system.
- We believe that replacing 1,000 to 1,500 meters in the first year of a multi-year program is achievable with current staff. This first year is a testing phase, to determine how well the system works; we hope to do more in future years and will attempt to replace all 11,000 in a 3 to 5-year timeframe, which will also include five hundred meters in the > 1” to < 6” range.
Budget/Financial/Legal Considerations:

- The 2020-2021 Capital Budget includes an additional $600,000 appropriation for this project.
- Funds for this work will be taken from the “Unallocated Capital Funds” line in the Capital Budget.
- Staff has requested and the Board has previously approved an appropriation of ~ $400,000, which was the remainder of the “Unallocated Capital Projects” line item in the FY 2019-2020 Budget.
- Procurements necessary for the completion of this project have and will follow the Kentucky Model Procurement Code.
- This Request for Proposals allows us to evaluate the pricing based on the best result for the Utility’s needs, not necessarily the lowest priced proposal. As it turns out, we selected the lowest proposal submitted that complied with the requirements of the RFP.

Recommendations & Approvals:

- After review of the proposals, staff recommends award of an Advanced Metering Infrastructure project to United Systems, having judged this proposal to be the best evaluated bid, best meeting the requirements of the RFP and the needs of the Utility. This award is subject to the negotiation of a contract in the next few weeks.
- We will continue this as a multi-year endeavor, and if our assumptions are validated, we will increase the number of meters replaced in future years to complete this project on an expedited basis. The total cost of United Systems’ proposal, including replacements for all residential meters and some larger commercial and industrial meters, is $2,995,277. We will spread this expenditure out over up to five years.
- Board approval authorizes all work necessary to complete the scope of work for this project, including issuance of any additional bids, purchase orders, engineering services, change orders, or other authorizations required to complete the work without unnecessary delays.
- This authorization includes approval to declare unusable, removed meters surplus and dispose of them per KRS and HWU policy.
- Future phases of this work will be authorized during the annual budget process. Maintenance fees will be covered in future budgets as on-going costs for technology expenses.

Respectfully Submitted for Approval:

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Tom Williams, P.E.
General Manager

BOARD ACTION – 20 July 2020

PASSED:_______  FAILED:_______  TABLED:_______  DATE:_______
To: Henderson Water & Sewer Commission  
From: Tom Williams, P.E., General Manager  
Subject: Final Design of Sand Lane Pump Station  
Project No: 22-1802-0098 (Sand Lane Pump Station)  
Date: 20 July 2020  

Background and Recent Work:  
- This Action Report relates to Action Report 2019-04, which authorized survey and preliminary design services for this project.  
- There is an area near Sand Lane and Fair Street that is currently served by two sewer pump stations, Rolling Hills and Fair Street. Rolling Hills is a Cantex station, and we have longer range plans to retire these stations, as they are difficult to work on.  
- Additionally, the area along Sand Lane from Fair Street to Green Street lacks sewer service, and this project will allow us to serve that area in the future.  
- Donohue and Associates has completed a preliminary engineering report, and we now have a workable plan to build a new sewer pump station on Sand Lane at Sandefur Drive, better serving this area and allowing the eventual retirement of three pump stations. The force main discharge from this new station will tie directly into the Canoe Creek force main, near the IP pump station, removing two “pass through” areas from the Combined Sewer System. See attached map, which roughly shows the area.  

Legal & Financial Considerations:  
- Procurements necessary for the completion of this work have and will follow the Kentucky Model Procurement Code.  

Recommendations & Approvals:  
- Staff wishes to proceed with final design of this project, and Donohue has submitted a fee estimate for that work of $114,780. It will be appropriated from the 2020-2021 Budget. Current Strategic Plan shows construction of this station in FY 2022, which may be subject to change.  
- Board approval authorizes all work necessary to move forward with this project, including issuance of any bids, purchase orders, engineering services, task orders, change orders, easements, or other authorizations required.  
- We will return to the Board with updated plans and cost estimates prior to bidding this project, and will request your approval, prior to initiating construction.  

Respectfully Submitted for Approval:  

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Tom Williams, P.E.  
General Manager  

Commission Action – 20 July 2020  
PASSED: _______________  FAILED: _______________  TABLED: _______________
EXECUTIVE SESSION

• To Discuss Matter Regarding Future Acquisition or Sale of Real Property, Pursuant to KRS 61.810 (1) (b)