A. ROLL CALL

B. INVOCATION

C. UPDATE ON BUILD AMERICA BONDS - Chip Sutherland, Hilliard Lyons

D. APPROVAL OF MINUTES
   • Approval of Minutes from December 21, 2015

E. MONTHLY REPORTS
   • Financial
   • Operations
   • Engineering
   • Human Resources
   • Safety Report
   • General Manager’s
     ➢ Fats, Oils and Grease Management Policy

F. BUSINESS
   • Resolution #2016-01 – Revisions to Henderson Sewer Use Ordinance
   • Resolution #2016-02 – Adopting Succession Plan for Continuity of Government
   • Action Report #2016-03 – TOC Analyzer and Gas Chromatograph Purchase
   • Request for Wastewater Service Outside City Limits – Robert L. Williams – 890 Morningside Drive
   • Election of Officers

G. EXECUTIVE SESSION – Requested
   • To discuss matter regarding proposed or pending litigation, pursuant to KRS 61.810(c).
ACTION MINUTES OF MEETING
December 21, 2015
ACTION MINUTES
December 21, 2015
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 Leason Neel, Kevin Roberts, Tim Fischbeck, Kathy Ambrose, Jeremy Duncan, and Patty Brown. Also in attendance were Mayor Steve Austin, City Manager, Russell Sights, and Assistant City Manager, Buzzy Newman and Carolyn Willett.

B. INVOCATION – Kathy Ambrose

Customer Addresses the Board Concerning Shelby Street

Carolyn Willett addressed the board with her displeasure concerning the paving that was done on Shelby Street after a sewer line project was completed. She stated that there was only patch work done instead of paving the whole street and that it looked terrible like a big black snake twisting down the street. She further stated that the residents understood, when the project began, that the entire street would be paved from side to side.

Tom Williams explained that when the project was nearing completion he and X.R. Royster agreed that paving only the portion of the street that was torn up would be adequate. He stated that normal procedure when a trench is dug is to replace only the portion that is dug up, and evidence of this procedure can be seen throughout the city.

Ms. Willett also voiced her displeasure with the vents that were in the area and work that was done around her driveway. She also stated that a huge manhole is located in the area now.

Mr. Williams explained that the manhole, which has a charcoal filter, was installed to help with the complaint of odor problems. Ms. Willett was asked if she had odor problems now and she replied that so far she did not. Mr. Williams noted that there was some additional work done there in the last few weeks and if there is a problem with her driveway this would be addressed.

After discussion, the board assured Ms. Willett that they do care about her concerns and would go take a look at Shelby Street to address her complaints and then someone will get back to her. If the problem is only an aesthetic issue, because part of the pavement is darker than the rest, they would not be able to do much in the way to help. They further conveyed that street paving, gutters, and sidewalks are not usually part of the water utility’s responsibility.

C. APPROVAL OF MINUTES

- Approval of Minutes from November 16, 2015

Minutes were approved as submitted.
D. MONTHLY REPORTS

- Financial – Discussed and approved as submitted.
  - Financial System Profile Audited Cost YE June 30, 2015-2014

Leason Neel advised the board that he has been working with Robert Gunter, City Finance Director and City Manager, Russell Sights, with regards to refinancing the Build America Bonds. He further advised that Chip Sutherland with Hilliard Lyons will be attending the January Board Meeting to review this with the board. Mr. Neel reported that this should have a significant effect on our debt service payment over the years.

Mr. Neel also reported that the current Financial System Profile and Audited Cost Reports are included in the packet. He pointed out that there is a big difference in stormwater rates from last years report. This is due to the fact that stormwater projects are being worked on more than in the past, therefore more costs are being allocated to stormwater. The downside to this is, that as far as contract revenue goes, it lessens the cost that is allocated to our contract customers which lessens our revenue. After much discussion, staff advised the board that they will keep an eye on this trend since it varies from year to year and if it continues in the next few years options that might alleviate this will be reviewed. City Manager, Russell Sights commented that he appreciated the stormwater work that has been done, because some of these projects have been on the list for years and needed to be completed.

- Operations – Discussed and approved as submitted.

- Engineering – Discussed and approved as submitted.

Tom Williams reviewed the engineering report with the board and noted that some significant progress has been made on the Frontier Tank. He noted that someone from Wauford inspects the job daily and that a paint inspector also comes up from Nashville on a regular basis.

- Human Resources – Discussed and approved as submitted.

Tom Williams introduced Tim Fischbeck who is the new Information Technology Manager replacing Greg Nunn. He reported that Tim has hit the road running and is working closely with Greg and others to become familiar with our operations.

- Safety Report – Discussed and approved as submitted.

Jeremy Duncan advised the board that there was one recordable injury in November. A crew worker was using a chop off saw and it kicked back and hit him in the chin which required sutures. He noted that this was a backup saw and a different brand. This saw has been taken out of service and will be replaced with one of the same brand as the one the crew normally uses. Other options are being looked at also for cutting in close quarters. He said a factory representative has been contacted and agreed to do some additional training as well.

- General Manager’s – Discussed and approved as submitted.
  - Report on Stormwater Projects

Tom Williams discussed the GM report with the board and highlighted the information on the City Code of Ordinance dealing with provision for wastewater service outside the City Limits which requires that a property owner sign a form to consent to annexation. This provision left out requiring the same consent for annexation for water service, which is something that
doesn’t occur very often. After discussion with the City staff it has been decided to request that this be changed to include water service also. The board agreed that this should be done and concurred that the process should be started to make this change.

Mr. Williams also noted that a list of stormwater projects that need to be completed is included. This also contains a list of recently completed stormwater projects which were discussed earlier in the meeting. He explained that there is a crew designated for stormwater work and when it comes to the point where they are caught up on the regular work then they are given a project on the list to complete.

E. BUSINESS

- Action Report #2015-32 – 6th Street Water Main Replacement Project

  Approved Action Report #2015-32 for the 6th Street Water Main Replacement Project in the amount of $70,000, which includes the low bid received for materials in the amount of $29,147.66 awarded to HD Supply Waterworks. This will be appropriated from the “Unidentified Capital Projects” line item in the 2015-16 budget.

- Action Report #2015-33 – Lawn Care Services

  After discussion, approved Action Report #2015-33 for Lawn Care Services in the estimated amount of $55,155 for the 2016 calendar year. The awards were given to Pierson’s Southern Turf Management for all properties, except the North Wastewater Treatment Plant which was awarded to Outdoor Solutions Landscaping and Lawncare. This bid is good for one year with two, one-year extensions allowed.

- Discuss moving January 2016 Meeting to fourth Monday, January 25th due to third Monday falling on holiday.

  The board agreed to move the January 2016 monthly meeting to January 25th, due to the third Monday falling on a holiday.

F. EXECUTIVE SESSION – Requested

- To discuss matter regarding proposed or pending litigation, pursuant to KRS 61.810(c).

  Motion was made and approved to go into Executive Session to discuss matter regarding proposed or pending litigation, pursuant to KRS 61.810 (c).

  Motion was made and approved to return to regular session.

  Upon return to regular session, no further business was conducted. Motion was made and approved to adjourn.

  The next meeting will be held on Monday, January 25, 2016.
FINANCIAL REPORT
Henderson Water Utility
Financial Summary
For Six Months Ended December 31, 2015
### Henderson Water Utility

**Operating Revenues and Expenses Summary**

**For the Six Months Ended December 31, 2015**

<table>
<thead>
<tr>
<th>Field</th>
<th>December Actual</th>
<th>December Budget</th>
<th>Year to Date Actual</th>
<th>Year to Date Budget</th>
<th>Fiscal Year Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Revenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Sales</td>
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<td>2,370</td>
<td>15,177</td>
<td>14,218</td>
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<td>Water Fees</td>
<td>1,500</td>
<td>4,022</td>
<td>21,424</td>
<td>24,133</td>
<td>48,265</td>
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<tr>
<td>Wastewater Services</td>
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<td>822,372</td>
<td>5,356,647</td>
<td>5,434,229</td>
<td>10,768,458</td>
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<td>Wastewater Penalties</td>
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<td>3,161</td>
<td>21,852</td>
<td>18,966</td>
<td>37,932</td>
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<td>Wastewater Fees</td>
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<td>15,800</td>
<td>132,606</td>
<td>94,798</td>
<td>189,595</td>
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<tr>
<td><strong>Total Operating Revenues</strong></td>
<td>1,324,728</td>
<td>1,427,418</td>
<td>9,431,303</td>
<td>9,464,505</td>
<td>18,629,010</td>
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<table>
<thead>
<tr>
<th>Field</th>
<th>December Actual</th>
<th>December Budget</th>
<th>Year to Date Actual</th>
<th>Year to Date Budget</th>
<th>Fiscal Year Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>307,085</td>
<td>336,472</td>
<td>1,991,929</td>
<td>2,102,950</td>
<td>4,374,135</td>
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<td>Payroll Taxes</td>
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<td>26,491</td>
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<td>Health Insurance</td>
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<td>108,000</td>
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<td>1,296,000</td>
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<td>336,186</td>
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<td>8,320</td>
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<td>Other Employee Benefits</td>
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<td>2,044</td>
<td>7,959</td>
<td>12,105</td>
<td>24,524</td>
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<td>Car Allowance</td>
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<td>10,800</td>
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<td>27,000</td>
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<td>Electricity</td>
<td>126,237</td>
<td>117,513</td>
<td>677,144</td>
<td>705,077</td>
<td>1,410,154</td>
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<td>Natural Gas</td>
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<td>3,223</td>
<td>7,852</td>
<td>37,050</td>
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<td>Chemicals</td>
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<td>90,833</td>
<td>607,670</td>
<td>545,000</td>
<td>1,090,000</td>
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<td>Inventory Expense</td>
<td>4,018</td>
<td>14,033</td>
<td>65,069</td>
<td>84,200</td>
<td>168,400</td>
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<td>Fuel</td>
<td>7,499</td>
<td>13,875</td>
<td>47,686</td>
<td>83,250</td>
<td>166,500</td>
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<td>Tools &amp; Small Equipment</td>
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<td>10,721</td>
<td>75,402</td>
<td>64,325</td>
<td>128,650</td>
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<td>Safety Supplies</td>
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<td>4,617</td>
<td>9,462</td>
<td>27,700</td>
<td>55,400</td>
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<td>Clothing/Cleaning Allowance</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>18,975</td>
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<td>Vehicle Repair</td>
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<td>5,850</td>
<td>27,201</td>
<td>35,100</td>
<td>70,200</td>
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<td>Other Equipment Repair</td>
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<td>23,108</td>
<td>85,980</td>
<td>138,650</td>
<td>277,300</td>
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<td>Other Structures Repair</td>
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<td>24,618</td>
<td>147,022</td>
<td>147,710</td>
<td>295,420</td>
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<td>25,285</td>
<td>17,212</td>
<td>34,424</td>
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<td>Administrative Services</td>
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<td>50,083</td>
<td>299,504</td>
<td>300,500</td>
<td>601,000</td>
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<tr>
<td>Contractual Services</td>
<td>132,865</td>
<td>101,671</td>
<td>640,726</td>
<td>610,026</td>
<td>1,220,052</td>
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<tr>
<td>Contractual Labor</td>
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<td>20,083</td>
<td>94,513</td>
<td>120,500</td>
<td>241,000</td>
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<td>Professional Services</td>
<td>375</td>
<td>2,917</td>
<td>4,933</td>
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<td>35,000</td>
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<td>Equipment Rental</td>
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<td>4,693</td>
<td>14,872</td>
<td>28,158</td>
<td>56,315</td>
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<td>Audit Expense</td>
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<td>20,000</td>
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<td>Trust Fees</td>
<td>38</td>
<td>1,250</td>
<td>2,873</td>
<td>7,500</td>
<td>15,000</td>
</tr>
<tr>
<td>Public Contributions</td>
<td>(4,483)</td>
<td>3,958</td>
<td>1,682</td>
<td>23,750</td>
<td>47,500</td>
</tr>
<tr>
<td>Insurance</td>
<td>2,501</td>
<td>23,175</td>
<td>140,776</td>
<td>162,975</td>
<td>278,100</td>
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<td>Technology Expense</td>
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<td>12,721</td>
<td>88,733</td>
<td>76,324</td>
<td>152,648</td>
</tr>
<tr>
<td>Office &amp; Field Supplies</td>
<td>22,168</td>
<td>15,167</td>
<td>110,616</td>
<td>91,000</td>
<td>182,000</td>
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<tr>
<td>Telephone</td>
<td>3,956</td>
<td>4,189</td>
<td>24,040</td>
<td>25,136</td>
<td>50,271</td>
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<tr>
<td>Medical Exams</td>
<td>426</td>
<td>500</td>
<td>2,322</td>
<td>3,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Travel and Training</td>
<td>2,218</td>
<td>5,370</td>
<td>23,036</td>
<td>32,220</td>
<td>64,440</td>
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<td>Dues and Subscriptions</td>
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<td>1,204</td>
<td>10,716</td>
<td>7,224</td>
<td>14,448</td>
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<td>Printing</td>
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<td>358</td>
<td>1,217</td>
<td>2,150</td>
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<td>Miscellaneous</td>
<td>1,402</td>
<td>596</td>
<td>2,592</td>
<td>3,575</td>
<td>7,150</td>
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<tr>
<td>Depreciation</td>
<td>141,667</td>
<td>291,667</td>
<td>1,600,000</td>
<td>1,750,000</td>
<td>3,500,000</td>
</tr>
</tbody>
</table>

**Total Operating Expenses**

<table>
<thead>
<tr>
<th>Field</th>
<th>December Actual</th>
<th>December Budget</th>
<th>Year to Date Actual</th>
<th>Year to Date Budget</th>
<th>Fiscal Year Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Income</strong></td>
<td>105,188</td>
<td>30,929</td>
<td>1,455,313</td>
<td>958,543</td>
<td>1,495,700</td>
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</table>

8
Henderson Water Utility
Variance Analysis
Six Months Ended 12/31/2015

Actual Operating Revenues $ 1,324,728
Budgeted Operating Revenues 1,427,418
Favorable (Unfavorable) Variance $ (102,690)
Percentage Difference -7.19%

Billable Gallons
Through 12/31/2015 1,243,543,347
Through 12/31/2014 1,283,204,263
Difference (39,660,916)
Percentage Difference -3.09%

Actual Operating Expenses $ 1,219,540
Budgeted Operating Expenses 1,396,489
Favorable (Unfavorable) Variance $ 176,949
Percentage Difference 12.67%

Breakdown of Volumetric Differential For Six Months Ended :

<table>
<thead>
<tr>
<th></th>
<th>Dec-15</th>
<th>Dec-14</th>
<th>Differential %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>317,135,299</td>
<td>314,278,286</td>
<td>0.91%</td>
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<tr>
<td>Industrial</td>
<td>533,854,865</td>
<td>565,939,339</td>
<td>-5.67%</td>
</tr>
<tr>
<td>Commercial</td>
<td>392,553,183</td>
<td>402,986,638</td>
<td>-2.59%</td>
</tr>
</tbody>
</table>

Depreciation Expense lower than budget because SWWTP depreciation is lower than originally budgeted.

Credit balance in Public Contributions due to billing City Gas and Public Works Departments for work done on their behalf.
Henderson Water Utility
Capital Expenditures Report
For the Six Months Ended December 31, 2015

<table>
<thead>
<tr>
<th>Construction In Progress:</th>
<th>Beginning Balance</th>
<th>Current MTD Activity</th>
<th>Current YTD Activity</th>
<th>Project to Date Balance</th>
<th>Fiscal Year Budget</th>
<th>Total Capital Budget</th>
<th>Action Report No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center &amp; Julia</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>100</td>
</tr>
<tr>
<td>Pump Station Modifications</td>
<td>27,545</td>
<td>-</td>
<td>-</td>
<td>27,545</td>
<td>110,000</td>
<td>110,000</td>
<td>13-14</td>
</tr>
<tr>
<td>US 60W Water Booster Station</td>
<td>83,646</td>
<td>14,971</td>
<td>116,687</td>
<td>200,333</td>
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<td>185,000</td>
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<tr>
<td>NWTP Headworks Project</td>
<td>10,979,179</td>
<td>294,981</td>
<td>1,679,190</td>
<td>12,658,369</td>
<td>2,650,960</td>
<td>13,630,139</td>
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<td>NWTP Rehab</td>
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<td>6,790</td>
<td>38,217</td>
<td>340,232</td>
<td>1,661,226</td>
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<tr>
<td>SWTP Rehab</td>
<td>213,891</td>
<td>61,801</td>
<td>249,401</td>
<td>463,292</td>
<td>330,000</td>
<td>625,100</td>
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<tr>
<td>Countryview Subdivision Stormwater</td>
<td>41,488</td>
<td>-</td>
<td>8,097</td>
<td>49,585</td>
<td>400,000</td>
<td>400,000</td>
<td>15-12</td>
</tr>
<tr>
<td>Frontier Tank Project</td>
<td>14,111</td>
<td>145,309</td>
<td>351,207</td>
<td>416,009</td>
<td>346,000</td>
<td>346,000</td>
<td>15-14</td>
</tr>
<tr>
<td>South Main &amp; Drury Stormwater</td>
<td>10,591</td>
<td>-</td>
<td>1,580</td>
<td>12,171</td>
<td>35,000</td>
<td>35,000</td>
<td>15-15</td>
</tr>
<tr>
<td>Atkinson Park Watershed</td>
<td>-</td>
<td>-</td>
<td>126,185</td>
<td>126,185</td>
<td>198,500</td>
<td>198,500</td>
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<tr>
<td>College Tank</td>
<td>-</td>
<td>7,800</td>
<td>7,800</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>15-27</td>
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<tr>
<td>Vine Street Tank</td>
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<td>7,800</td>
<td>-</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
<td>15-27</td>
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<td>Finley Addition</td>
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<td>6th Street Water Main</td>
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<td>-</td>
<td>70,000</td>
<td>70,000</td>
<td>561,941</td>
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<tr>
<td>Total Construction In Progress</td>
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<td>534,282</td>
<td>2,700,581</td>
<td>14,511,692</td>
<td>7,139,527</td>
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</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC Bldg Roof</td>
<td>13,991</td>
<td>-</td>
<td>-</td>
<td>13,991</td>
<td>34,125</td>
<td>45,116</td>
<td>14-23</td>
</tr>
<tr>
<td>NWTP Digestor Blower</td>
<td>-</td>
<td>22,375</td>
<td>22,375</td>
<td>23,000</td>
<td>23,000</td>
<td>23,000</td>
<td>15-17</td>
</tr>
<tr>
<td>Blower Bldg # 1 Roof</td>
<td>-</td>
<td>11,543</td>
<td>11,543</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admin Bldg Improvements</td>
<td>18,272</td>
<td>90,979</td>
<td>195,487</td>
<td>213,759</td>
<td>280,000</td>
<td>280,000</td>
<td>15-25</td>
</tr>
<tr>
<td>Sludge Storage Bldg</td>
<td>9,188</td>
<td>27,840</td>
<td>106,604</td>
<td>115,792</td>
<td>150,000</td>
<td>150,000</td>
<td>15-04</td>
</tr>
<tr>
<td>Total Buildings and Improvements</td>
<td>$41,451</td>
<td>118,618</td>
<td>336,009</td>
<td>377,460</td>
<td>453,100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment and Vehicles:</th>
<th>Beginning Balance</th>
<th>Current MTD Activity</th>
<th>Current YTD Activity</th>
<th>Project to Date Balance</th>
<th>Fiscal Year Budget</th>
<th>Total Capital Budget</th>
<th>Action Report No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>235,000</td>
<td>235,000</td>
<td>15-24</td>
</tr>
<tr>
<td>Virtual Server</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40,160</td>
<td>45,000</td>
<td>45,000</td>
<td>15-23</td>
</tr>
<tr>
<td>Generator</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9,439</td>
<td>23,310</td>
<td>23,310</td>
<td>14-32 &amp; 52</td>
</tr>
<tr>
<td>Tapping Machines</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9,439</td>
<td>23,310</td>
<td>23,310</td>
<td>14-32 &amp; 52</td>
</tr>
<tr>
<td>Work Order Mgt. System</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformers</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20,000</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Engineering Plotter</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9,602</td>
<td>9,602</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicles</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9,802</td>
<td>9,802</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camera Tractor</td>
<td>-</td>
<td>8,554</td>
<td>8,554</td>
<td>8,554</td>
<td>9,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash Truck</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>230,000</td>
<td>230,000</td>
<td></td>
<td>15-19</td>
</tr>
<tr>
<td>Total Equipment and Vehicles</td>
<td>-</td>
<td>8,554</td>
<td>67,755</td>
<td>67,755</td>
<td>788,209</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Capital Expenditures</strong></td>
<td><strong>$ 11,852,562</strong></td>
<td><strong>$ 681,454</strong></td>
<td><strong>$ 3,104,345</strong></td>
<td><strong>$ 14,956,907</strong></td>
<td><strong>$ 8,380,836</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Henderson Water Utility

Financial Statements

For Six Months Ended December 31, 2015
### ASSETS

Current assets:
- Cash: $8,815,268
- Unrestricted Investments: $2,101,621
- Restricted Investments: $422,027
- Accounts receivable: $739,704
- Inventories: $902,859
  - Total current assets: $12,981,479

Noncurrent assets:
- Construction in progress: $14,511,692
- Utility plant and equipment, net of accumulated depreciation: $65,251,276
- Other assets: $224,977
  - Total noncurrent assets: $79,987,945

Deferred outflows of resources: $655,170

Total assets: $93,624,594

### LIABILITIES

Current liabilities:
- Accounts payable: $245,393
- Retainage payable: $547,004
- Deposits payable: $83,259
- Accrued liabilities: $1,432,207
- Current portion of long-term debt: $160,000
  - Total current liabilities: $2,467,863

Noncurrent liabilities:
- Accrued pension liability: $5,018,088
- Long-term debt: $40,047,239
  - Total noncurrent liabilities: $45,065,327

Deferred inflows of resources: $560,000

Total liabilities: $48,093,190

### NET POSITION

Net investment in capital assets: $39,780,706
- Restricted for debt service: $422,027
- Unrestricted: $5,328,671
  - Total net position: $45,531,404

Total liabilities and net position: $93,624,594
Henderson Water Utility
Statement of Revenues, Expenses, and Changes in Net Position
For the Six Months Ended December 31, 2015

<table>
<thead>
<tr>
<th>Operating Revenues</th>
<th>December Actual</th>
<th>December Budget</th>
<th>Year to Date Actual</th>
<th>Year to Date Budget</th>
<th>Fiscal Year Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water sales and fees</td>
<td>$538,940</td>
<td>$586,085</td>
<td>$3,920,198</td>
<td>$3,916,512</td>
<td>$7,633,025</td>
</tr>
<tr>
<td>Wastewater services and fees</td>
<td>785,788</td>
<td>841,333</td>
<td>5,511,105</td>
<td>5,547,994</td>
<td>10,995,885</td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td><strong>1,324,728</strong></td>
<td><strong>1,427,418</strong></td>
<td><strong>9,431,303</strong></td>
<td><strong>9,464,506</strong></td>
<td><strong>18,629,010</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Expenses</th>
<th>December Actual</th>
<th>December Budget</th>
<th>Year to Date Actual</th>
<th>Year to Date Budget</th>
<th>Fiscal Year Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries, wages, and benefits</td>
<td>485,572</td>
<td>545,762</td>
<td>3,121,695</td>
<td>3,368,349</td>
<td>6,885,613</td>
</tr>
<tr>
<td>Contractual services</td>
<td>207,614</td>
<td>184,656</td>
<td>1,078,659</td>
<td>1,123,977</td>
<td>2,235,867</td>
</tr>
<tr>
<td>Supplies and materials</td>
<td>152,945</td>
<td>134,079</td>
<td>805,289</td>
<td>804,474</td>
<td>1,627,925</td>
</tr>
<tr>
<td>Utilities expense</td>
<td>128,316</td>
<td>120,600</td>
<td>680,367</td>
<td>712,929</td>
<td>1,447,204</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>54,185</td>
<td>63,280</td>
<td>404,493</td>
<td>407,563</td>
<td>759,357</td>
</tr>
<tr>
<td>Depreciation</td>
<td>141,667</td>
<td>291,667</td>
<td>1,600,000</td>
<td>1,750,001</td>
<td>3,500,000</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td><strong>1,219,540</strong></td>
<td><strong>1,396,489</strong></td>
<td><strong>7,975,990</strong></td>
<td><strong>8,505,963</strong></td>
<td><strong>17,133,310</strong></td>
</tr>
</tbody>
</table>

| Operating income | 105,188 | 30,929 | 1,455,313 | 958,543 | 1,495,700 |

<table>
<thead>
<tr>
<th>Nonoperating Revenues (Expenses)</th>
<th>December Actual</th>
<th>December Budget</th>
<th>Year to Date Actual</th>
<th>Year to Date Budget</th>
<th>Fiscal Year Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment income</td>
<td>2,519</td>
<td>2,083</td>
<td>20,043</td>
<td>12,500</td>
<td>25,000</td>
</tr>
<tr>
<td>Other income</td>
<td>2,302</td>
<td>-</td>
<td>10,577</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(96,542)</td>
<td>(100,748)</td>
<td>(598,482)</td>
<td>(604,489)</td>
<td>(1,208,973)</td>
</tr>
<tr>
<td>Amortization expense</td>
<td>(1,483)</td>
<td>(1,470)</td>
<td>(10,412)</td>
<td>(8,821)</td>
<td>(17,642)</td>
</tr>
<tr>
<td><strong>Total nonoperating revenues (expenses)</strong></td>
<td><strong>(93,204)</strong></td>
<td><strong>(100,135)</strong></td>
<td><strong>(578,274)</strong></td>
<td><strong>(600,809)</strong></td>
<td><strong>(1,201,615)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income before capital contributions and distribution</th>
<th>11,984</th>
<th>(69,206)</th>
<th>877,039</th>
<th>357,734</th>
<th>294,085</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital contributions</td>
<td>-</td>
<td>-</td>
<td>170,216</td>
<td>-</td>
<td>377,411</td>
</tr>
<tr>
<td>Distribution to City of Henderson</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(400,000)</td>
</tr>
</tbody>
</table>

| Change in net position | 11,984 | (69,206) | 1,047,255 | 357,734 | 271,496 |

| Net position, beginning of period | 45,519,420 | 44,911,088 | 44,484,149 | 44,484,149 | 44,484,149 |

| Net position, end of period | **$45,531,404** | **$44,841,882** | **$45,531,404** | **$44,841,883** | **$44,755,645** |
## Henderson Water Utility
### Statement of Cash Flows
#### For the Six Months Ended December 31, 2015

<table>
<thead>
<tr>
<th></th>
<th>December</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CASH FLOWS FROM OPERATING ACTIVITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receipts from customers</td>
<td>$ 1,892,246</td>
<td>$ 9,334,113</td>
</tr>
<tr>
<td>Payments for goods and services</td>
<td>(560,826)</td>
<td>(3,227,968)</td>
</tr>
<tr>
<td>Payments for employees</td>
<td>(485,572)</td>
<td>(3,116,397)</td>
</tr>
<tr>
<td>Net cash provided (used) by operating activities</td>
<td>$845,848</td>
<td>$2,989,748</td>
</tr>
</tbody>
</table>

| **CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES** |           |              |
| Distribution to City of Henderson | -         | -            |
| Net cash provided (used) by noncapital financing activities | -         | -            |

| **CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES** |          |              |
| Acquisition and construction of capital assets | (647,643) | (3,472,993)  |
| Principal payments on long-term debt | -         | (5,574,603)  |
| Interest payments on long-term debt | -         | (745,088)    |
| Bond proceeds, net of closing costs | -         | 3,504,483    |
| Capital contributions | -         | 170,216      |
| Net cash provided (used) by capital and related financing activities | (647,643) | (6,117,985)  |

| **CASH FLOWS FROM INVESTING ACTIVITIES** |          |              |
| Investment and other income received | 5,861    | 33,571       |
| Investments proceeds | -         | 642,848      |
| Investments purchases | (29,579) | (178,895)    |
| Net cash provided (used) by investing activities | (23,718) | 497,524      |

Net increase (decrease) in cash  
174,487 (2,630,713)

Cash, beginning of period  
8,640,781 11,445,981

Cash, end of period  
$8,815,268 $8,815,268
OPERATIONS REPORT
General Operations:

A. Treatment Plants - Overview

1. Regulatory

a. ORSANCO Water Users Advisory Committee (WUAC): Kevin Roberts will be attending the WUAC meeting on January 27th and 28th in Florence, KY. It seems like we just stopped talking about Harmful Algal Blooms on the Ohio River, but the appropriate stance to be taken is not one that considers it as a one-and-done event. The bulk of the WUAC agenda will be centered on this issue, health risks associated with it presence and treatment, costs that were associated with it this past summer and updates on HAB rules, regulations and treatment techniques.

Kevin also hopes to speak with ORSANCO personnel about providing HWU with a piece of laboratory equipment that has been brought to your attention in past board meetings – a gas chromatograph. This is an expensive item that ORSANCO supplies to several municipalities along the Ohio River. The treatment plants collect and analyze samples on a daily basis and submit these findings to ORSANCO so that representative water quality data can be obtained for the entire stretch of the Ohio River. The water utilities are free to use the GC for whatever other testing they want to perform which most typically includes Disinfection By-Products.

The advantage to this is that the equipment and annual service are entirely paid for through a grant. The disadvantage is that the testing that the plant agrees to supply to ORSANCO is rigorous and time-consuming. The advantage of having this equipment and ongoing costs supplied to us may be outweighed by the necessity of hiring an additional water quality technician. Our current Water Quality Specialist is to the point where not very much more can be added to her responsibilities, with much more needing to be added as we begin adding proactive HAB testing.

More information will follow.

2. Personnel:

a. Current Plant Operations Staff Levels:

1) North Water: Full Operational Staff.

2) North Wastewater: The exam for two Maintenance Tech 1 positions (which are to replace the Sludge Press Operator and temporary helper) was administered on 1/7/2016. We hope to have these positions filled by this time next month.

3) South Water: Full Operational staff.

4) South Wastewater: Full operational staff.

5) Environmental Compliance & Pretreatment: Full Operational Staff.

6) Plant Maintenance: Full operational staff.

7) Pump Station Maintenance: Full operational staff.
3. Projects

   a. **Plant Beautification Efforts:** This effort is continuing on with updates to the entrance and first floor bathroom of NWTP. All of the work is being performed by in-house staff and they are doing a good job.

B. North WTP:

   **Treatment Quality:**
   
   1. All regulatory treatment goals were met.
   
   2. Work has begun on the preparation of the Consumer Confidence Report for 2016. As a reminder, the CCR has been published online, instead of individual hard copies being mailed, for the last two years. When CCRs were mailed, it cost around $6,500. It’s hard to put a number on what this costs us now, but it is less than $500.
   
   3. One Water Quality Call was responded to:
      
      a. 1557 South March Lane – This residence is in Happy Acres subdivision which is not in our service area. The resident was observing brown water. The residence is on well water and it turned brown during the heavy rains over Christmas and New Year’s Day, indicating the influence of infiltration and possible contamination. Those renting the home have a newborn and wanted to know if the water was safe to drink and/or bathe in. There was an elevated level of *E. coli*, very similar to what was being observed in the Ohio River at the same time. This evidenced that runoff was getting into their well. Results were given to them to give to their landlord.
   
   4. The Kentucky Division of Water will conduct a comprehensive audit of the microbiology lab on June 14th and 15th.

   **Operations:**
   
   1. **Treatment Challenges:** Though finished water quality has been unaffected, ongoing construction and cold weather has put a great deal of stress on basins #1 and #3. Settled water turbidity is above average. Adjustments to chemical settings by the operators to compensate have had little success. Water demand has been higher than normal, running about 7 – 7.5 MGD, and since construction has us down to operating only on one basin, it’s the equivalent of 14 MGD being treated (keep in mind that the efficient treatment capacity of the plant is 12 MGD, which is based on filter capacity).
   
   2. **Construction:** The new effluent piping for basin #2 has been started, as well as having all of the pipe supports poured. Core drilling began Tuesday for the effluent into third basin. The current plan is for Basin #2 to be complete the week of 1/19, and to have work begin on basin #1 the first week of February.
   
   3. **Plant Optimization:** Between the cold weather and construction, plant optimization has been lowered in priority and attention. Plant staff are making plans and preparations for measuring filter optimization once the plant returns to a normal state.
   
   4. **Budget:**
      
      a. Chemical expenditures were over budget this month due to several chemicals being ordered the last week of November.
      
      b. Total expenses for the month were over budget. The bulk of this was in Contractual Services for the renewal of the Hach Equipment Service Contract.
5. Average water treated & water pumped data trend:

![Graph showing 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:

Treatment Quality:

1. **Effluent Quality**: All regulatory treatment goals were met.

2. **Biosolids Quality**: There have been a couple of days where Hazex was unable to haul due to ice and freezing temperatures and some sludge has had to go onto the drying beds.

3. **Reports**: All reports have been submitted for the month. The annual 503 report is nearly complete and is on schedule to be submitted on time. The deadline is February 19th.

Operations:

1. **Plant Update**: All internal goals have been met.

2. **Personnel**: The current sludge press operator is staying extremely busy when not running press or loading sludge he has been making repairs and improvements to the structures. He is taking care of the drying bed daily maintenance and loading Hazex trucks with this sludge for disposal. (This is a significant change where the previous contractor – now out of business - did this work and the material was taken to a different landfill – which is now closed).

Four of the NWWT personnel will be attending the 12-week maintenance training at HCC.

3. **Construction**:

   a. Construction is still progressing – equipment start-ups began 14 December 2015 and are scheduled to continue until the end of January. At that time we will be able to start treating water in the new system while modifications are made to the old structures & piping. It will be very demanding of the staff to maintain permit limits of effluent quality.

   b. Training has been conducted on the new clarifier and startup went well. We will be able to use it when construction needs us to move to it.

   c. The training and startup of the bar screens is underway at this time and is going well.

   d. TrojanUV is working on startup of the UV system.

   e. Straeffer Pump is here working on startup of the Dakota pump system for the reuse water.
f. Straeffer will also do the startup and training on the new RAS & WAS pumps on 25 Jan at the central pump station.

4. **Hauling Contractor:** We are able to load drybed sludge into Hazex large trailers now which will be more cost-efficient since final disposition is now Blackfoot landfill.

5. **Budget:**
   a. Chemical expenditures were under budget for the month.
   b. Fuel (Off-Road Diesel) was over budget for the month.
   c. Sludge Hauling and Disposal was under budget for the month.
   d. Total expenses were under budget for the month.

D. **South WTP:**

**Treatment Quality:**

1. All regulatory and in-house treatment goals were met.

**Personnel:**

1. **Update:** This operator was able to return to work on 12/24/15. *(Previous: One of the night shift operators had to take off for a medical procedure on 12/15/15. We hope that the operator will be able to return to work with only a lifting restriction on 12/24/15.)*

2. Brad Bickwermert completed an online course from California State University, Sacramento. This should give him the equivalent of 6 months of plant operation credit when we apply for his DOW Drinking water certification. This is the first time that we have done this training and was an attempt to get an operator certified quicker. It has worked out very well and Brad is preparing to enroll in the second part to this course. Many thanks to Nancy Parker who made this happen.

3. **Update:** Mark tested and is awaiting notification of his results. *(Previous: Mark Julian has applied to test for his Class IVA KYDOW Drinking Water Treatment license in January.)*

**Operations:**

1. **Treatment Challenges:** The rain and temperature changes are causing turbidity upsets in the plant cones and filters. This also results in longer filter rewash times. While this is common at the SWTP during a large percentage of the year, it creates more work for the operators and increases the amount of operational attention and awareness necessary to prevent mistakes in other areas. There is probably not a more challenging and operator-intensive plant to operate efficiently than this one.

2. **Plant Maintenance:**
   a. *(No Change)* Maintenance replaced a failed valve on filter #1 and will be replacing the actuator next.
   b. *(No Change)* The door on top of the filters leading to the cones has rusted badly from the inside. This door will most likely have to be replaced with a heavier gauge and better quality door.

3. **Budget:**
   a. Chemical expenditures were over budget for the month.
b. Total expenses for the month were under budget.

4. Average Treated & Pumped water trend:

![Graph showing SWTP Treated (MGD) and SWTP Pumped (MGD)]

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

E. South WWTP:

Treatment Quality:

1. **Effluent Quality:** Effluent quality was very good this past month.

2. **503 Sludge Report:** This report is nearly finished and on schedule to be submitted on time.

3. **Plant Update: (No Change)** Basin has been pumped down and is almost empty. Work will be started on cleaning for inspection. *(Background: Due to the lateness in the year for beginning a major rehab project and the lack of consistent manpower, work on putting Aeration Basin #6 back in service will be delayed until early spring 2016. We have a plan to deal with unexpected loading concentrations from Tyson until then.)*

Operations:

1. **Personnel:**
   
a. Operator Chris Bassett has enrolled to test for his Class III Wastewater license.

b. The solids press is only being operated when temperatures are above freezing.

2. **Projects:**
   
a. **Clean Up:** This continues to take place on a consistent basis.

b. **Sludge Storage Pad: (No Change)** We are waiting on the delivery of the conveyor belt system.

c. Maintenance has installed portable heaters in the headworks building, Chlorine building and main building. These electric heaters are on rollers and easy to move if need be. These heaters were far cheaper to purchase than to replace the hanging heaters in the headworks.

d. We had Galloway Electric switch out two of the plant lights that are mounted to poles by the final basin and clarifiers with LED lights. Night shift Operators can now view those areas
without any problems at night. We plan on replacing all the old lights with LED ones but are phasing them in.

3. **Budget:**
   
   a. **Chemicals:** Chemicals were under budget for the month.
   
   b. **Sludge Hauling & Disposal:** Sludge removal costs were under budget this month.
   
   c. **Total Budget:** Total budgeted expenses for the month were under budget.

F. **Plant Maintenance:**

1. Renovation of some office space at the NWWTP is in the beginning stages. Temporary workers to assist with this remodeling are in the process of being interviewed. Moving some staff to this space will free up space at the SOC.

2. **Update:** This course began with a full class of participants. This is the second round of cooperative training between HWU and HCC. *(Previous: A training program for the plant maintenance staff is being developed and slated to be ready for January. This is in cooperation with Henderson Community College and will offer both electrical and hydraulic system training. Final draft of the curriculum has been approved and classes are slated to begin on January 20.)*

3. Automatic lubricators are now installed for a test run on the blowers at the SWWTP. They will be evaluated and if they perform as we hope, they could be of value at all treatment plants.

4. **Update:** Quotes have been received. Purchase and then scheduling of repairs are underway. *(Previous: We are in the process of getting quotes for repair or replacement of some electric valve actuators at the NWTP that have not functioned in a while.)*

5. Training at the North Wastewater plant is being attended as new equipment goes through startup.

6. We are continuing to supply engineering with documents from all of the plants for an operation and maintenance searchable data base.

G. **Pump Station Maintenance**

1. Two of our pump station maintenance technicians are planning to attend a class in March to obtain Collection System licensure.

2. The Pump Station crew is teaming up more intentionally with the Pretreatment Coordinator to identify problem areas to be investigated. One of the main problems being observed in the North Fork and Gardenside area are disposable wipes clogging the pumps. Pretreatment will be getting involved in this with an awareness campaign targeting the neighborhoods and businesses in these areas educating about the myth of flushable wipes.

3. All things considered, both North and South system pump stations are in good shape. Major issue in the North system is the installation of a bypass at Atkinson Park Pump Station – this has to happen before the second pump can be installed. For the South system, there was a major grease problem at the Tyson Feedmill Pump Station – pretreatment is keeping a close eye on this.

H. **Pretreatment Program & FOG Services:**

1. To date, there are 87 FOG (Fats, Oils, and Grease) permits ready to be sent out and/or delivered to businesses, mostly restaurants. There have been more than 100 surveys sent out. Those surveys that have not been returned are being followed up on. Once the FOG policy is officially adopted, permits will start being delivered.
2. General Discharge Permits have been issued to both Gibbs Die Casting plants. These plants discharge zero process water because of their evaporators. As such, they pose no threat to the treatment plant. Under a GD permit, compliance sampling costs are reduced while still providing verification to the DOW State Pretreatment Coordinator that we know they’re a Significant Industrial User.

3. Taubensee Steel has been issued a General Discharge Permit. A walk-thru inspection was performed and compliance sampling was conducted to verify that they discharge zero process water. This permit gives the State Pretreatment Coordinator verification that Taubensee Steel is a Significant Industrial User and that HWU is aware of them.

4. The 2015 pretreatment Discharge Monitoring Report was completed and submitted to the EPA through NetDMR on 1-12-2016

5. Methodist Hospital has been found to be a Significant Industrial User and an Industrial User Discharge Permit has been issued to them. After two rounds of compliance sampling they’ve been found to be in compliance and discharging only domestic wastewater. We will continue monitoring their discharge until their current permit expires on 7/31/2016. At that point we plan on issuing them a General Discharge Permit.

I. Automation Department:

1. (No Change) We have completed automation for the new water booster station. It is ready for startup.

2. We have provided historical pressure and level data from the Graham Hill area and Vine Street Tank to Wauford Engineering for their water supply study.

3. We have replaced the level transducer and hatch in Frontier Village Tank.

4. We recently had a meeting with HFD and Henderson Housing Authority to discuss the logistics of maintaining radio communications during the time that Vine Street Tank is being painted and the interior of the dry structure is being water blasted. HWU, HFD and HHA have radio equipment in a small utility building within the dry structure of the tank, as well as several omni-directional antenna mounted on top of the tank. We plan to construct a new utility building within the tank. We are working through a plan to maintain all communications during the time of these renovations.

5. (No Change) We are in the process of incorporating new pH and Dissolved Oxygen sensors at the SWWTP Headworks into SCADA. Conduit has been run and wiring pulled. PLC logic has been completed. HMI development is underway. Sensors have been installed.

6. We have nearly completed a project to control the pumps at 3rd Street CSO Basin based upon CSO conditions from our monitoring instruments located along the Ohio River. This has been a very complex project involving linking independent databases with SCADA.

7. We have begun new instrument integration at the NWTP of two turbidimeters and five chlorine analyzers.

8. (No Change) We have purchased new pressure sensors and will be installing these around our north water system in order to assist in water modeling, water quality control and to enhance our pressure monitoring. We will be adding ten new sensors to our existing, as time permits.

9. Startups have begun at the NWWTP with various portions of the process and with various equipment. We have been attending each startup.
J. SOC General

1. **Job Functions / Workflow:** As Joe Bentley, Utility System Superintendent, has announced his retirement effective July 31, 2016, we have begun to transition duties to other personnel. Our Pump Station Maintenance crews are now reporting to Kevin Roberts, Director of Plant Operations. Glenn Frields, our other HWU Utility System Superintendent, assumed the remainder of Joe’s duties in addition to his previous duties. Jamie Wilke has been promoted to the new position of HWU Assistant Utility System Superintendent to assist Glenn with the operation. Jamie will be leading our five dig-out crews. Congratulations to Jamie for his promotion.

2. **Other Promotions:** Ian Snow and Bobby Hewgley have been promoted to the position of HWU System Crew Leader, to fill vacancies.

3. **New Hire:** Annette Brewster has been hired as HWU Secretary at the SOC. The position became empty when Deniese Jones was promoted. The position is necessary because Dana Woods, Administrative Assistant, now devotes much of her time to helping Glenn Frields and Jamie Wilke, and working with our Cityworks Asset Management System.
K. Customer Service:

Customer Service Calls and Work Orders (NORTH):

These are the customer calls we responded to and by no means represent all of the calls that came in. We provided the following services to customers last month:

<table>
<thead>
<tr>
<th>Water Line and Service Maintenance</th>
<th>Qty.</th>
<th>Sewer Line and Service Maintenance</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Main Repairs</td>
<td>5</td>
<td>Sewer Main Repairs</td>
<td>2</td>
</tr>
<tr>
<td>Water Service Line Repairs</td>
<td>4</td>
<td>Sewer Service Line Repairs</td>
<td>0</td>
</tr>
<tr>
<td>Water Meter Inspection</td>
<td>15</td>
<td>Sewer Manhole Repairs</td>
<td>1</td>
</tr>
<tr>
<td>Water Meter Changes</td>
<td>4</td>
<td>Sewer Main Cleaning</td>
<td>7</td>
</tr>
<tr>
<td>Water Meter Repair</td>
<td>1</td>
<td>Sewer Main Grease Removal</td>
<td>0</td>
</tr>
<tr>
<td>Water Meter Disconnected</td>
<td>3</td>
<td>Sewer Overflow Calls</td>
<td>0</td>
</tr>
<tr>
<td>Water Meter Reposition</td>
<td>9</td>
<td>Sewer Backup Calls</td>
<td>13</td>
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<tr>
<td>Water Meter Box Cleaned</td>
<td>0</td>
<td>Sewer Blocked Calls</td>
<td>3</td>
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<tr>
<td>Water Meter Locate</td>
<td>1</td>
<td>Sewer Odor Calls</td>
<td>2</td>
</tr>
<tr>
<td>Water Meter Leak Detection</td>
<td>4</td>
<td>Sewer Service Line Locates</td>
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<tr>
<td>Water Meter Consumption Check</td>
<td>12</td>
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<td></td>
</tr>
<tr>
<td>Fire Hydrant Repairs</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Water Pressure Calls</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Leak Calls</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Quality Calls</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Water Calls</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn Water Off/Turn Water On Calls</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Install Temporary Hydrants</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater Maintenance</td>
<td>Qty.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storm line Repairs</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storm Intake Repairs</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater Flooding Calls</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean/Unblock Intakes</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Station Maintenance</td>
<td>Qty.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Station Repairs</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Station Inspections</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>Pump Station Cleaning</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Station Maintenance</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

New Services Qty.

- Water Taps 1
- Sewer Taps 0
- Sewer Tap Locates 0
- Water Meter Installation 1

Miscellaneous Services Qty.

- Sink Hole Calls 1
- Inspect Misc. Items 23
- Smoke Test Lines 16
- Camera Inspect Lines 1

Regulatory Issues Qty.

- Downspout Removal Letters Mailed 16
  We have mailed out a total of 209 downspout letters to date.
  165 have complied and been inspected.
L. **Collection System:**

1. We have been working on a few Sewer Main repairs and cleaning lines.

2. We worked this month on a couple of the neighborhood stormwater projects and ditch cleaning.

M. **Distribution System:**

1. With the temperatures dropping the SOC crews are already hard at it thawing meters and repairing water main breaks. We have a great bunch of guys serving this utility and community!

N. **Stormwater Phase II:**

1. Our MS4 (Municipal Separate Storm Sewer System) permit requires us to “lead by example” by observing “Good Housekeeping for Municipal Operations.” Each calendar quarter, city-wide department heads or their designees perform detailed inspections of their facilities. The inspections help to insure that procedures are followed that will help safeguard the water in our rivers and streams.

During the first part of January 2016, City-wide departments inspected their facilities and filled out a custom-created inspection questionnaire. The documents consist of 117 items in seven different categories, as follows:

   a. Vehicle / Equipment Maintenance
   b. Municipal Snow and Ice Removal
   c. Parks / Open Space Maintenance
   d. Materials Storage, Handling, Disposal
   e. Street and Sidewalk Sweeping
   f. Accidental Spills / Hazmat / Fueling / Waste Management
   g. Administrative Considerations

As is always the case, all of the city departments responded promptly with quality inspection reports.

2. **IDDE – A Grate Concern**

A series of videos called “IDDE – A Grate Concern” is continuing to be presented to the public.

IDDE, or Illicit Discharge Detection and Elimination, is one of the six key hallmarks of our MS4 (Municipal Separate Storm Sewer System) general permit.

The word “Grate” is a play on words, and refers to stormwater intakes, or grates. It is a great concern when illicit discharges go down our stormwater grates.

O. **Information Technology Department:**

1. The Hach WIMS (Water Information Management Solution) was reaching its maximum capacity of 10GB of storage space. When the storage issue was discovered, actions were taken to slow the rate of growth until a solution could be found. Hach support was contacted. They informed us that we needed to purchase a space-unlimited version of WIMS and Microsoft SQL Server. The software was purchased, a new virtual server was built, and the upgrade was completed on Friday 15 January. Adequate space for many years of data collection is now available. The total cost of the upgrade was $7200 and was expensed.

2. Beginning to replace wireless access points. The current wireless access points are several years old and are reaching the point of obsolescence. We have begun the process of replacing the current consumer-class wireless access points with enterprise class wireless access points from Ubiquiti Networks. These high performance wireless access points blend in with the environment, are more secure and can be more efficiently managed. An added bonus is that they are low-cost. This
technology will be used at all HWU locations. City IT has deployed two of these units at the City building and plans a larger rollout.

3. Fixed the wireless network connection between the NWWTP office and Booster Building. The networking configuration needed a bit of tweaking. The system is now operating as designed. System dBm levels between the wireless access points are at acceptable levels and ping times are between 3 and 5 ms. That is not quite LAN (Local Area Network) speed but it is impressive given the distances that are being spanned wirelessly.

4. The South plants are requesting that their Wi-Fi coverage be expanded to cover the outside areas. We are investigating Ubiquiti outdoor Wi-Fi equipment to fill this need.

5. Begun taking inventory of excess and obsolete computer equipment. We will be placing this equipment on GovDeals soon.

6. Rolled out three iPads to the South Maintenance Crew
P. GIS Department: (No Change)

1. (No Change) We currently have surveyed 64% (2152 out of 3321) of our wastewater manholes. Tony Samples is doing the GPS field work as well as updating the spatial and attribute (rim elevation) information in the GIS.

2. (No Change) Working on delineating our sewer pump station service areas. This will be useful for statistics on the total number of customers the pump station services, critical customers that the pump station services, total service area, and the ability to query which pump stations flow into one another. The final product will be a GIS web map.

3. (No Change) Currently looking into the feasibility of moving plan and profile design plans from AutoCAD into a GIS environment. There could be ways to make the design process more automated in GIS. AutoCAD will still be needed for drawing plan details, but most of the mapping might be easier in GIS.
<table>
<thead>
<tr>
<th>Date</th>
<th>Crew #</th>
<th>Address</th>
<th>Comments</th>
<th>Rodney’s Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/11/2015</td>
<td>135</td>
<td>2006 Magnolia</td>
<td>The 2 men that came out to do the work were very courteous. My husband enjoyed talking with them. Wouldn’t mind them coming back out to do more work when needed.</td>
<td></td>
</tr>
<tr>
<td>12/27/2015</td>
<td>124</td>
<td>1051 Watson Lane</td>
<td>These two guys were great. They came soon and completed the job quickly. They were very cordial and explained everything thoroughly. Can’t ask for anything better!</td>
<td></td>
</tr>
<tr>
<td>12/31/2015</td>
<td>124</td>
<td>1661 Bruce Street</td>
<td>Thank you. They were dependable and prompt. They said they washed sewer past my house and my sewer flowed toward main. They said any more problems to please call.</td>
<td></td>
</tr>
<tr>
<td>12/21/2015</td>
<td>140</td>
<td>617 S. Alvasia #A</td>
<td>Excellent job! Completed in full!</td>
<td></td>
</tr>
</tbody>
</table>

16 Service Request Tags Given Out
10 Work Order Tags Given Out
4 Door Tags Returned
ENGINEERING REPORT
1. **North Wastewater Treatment Plant:**

   **Headworks/Plant Upgrade:** Work on the North WWTP Improvements (Headworks) continues, with initial startup of the screens, grit collection equipment and plant water systems the week of December 14th, followed by preliminary work on startup of the UV system, January 18th.

   The new part of the plant will soon be running as a stand-alone unit. This has involved a lot of work and time from plant maintenance and the plant operators, and they have stepped up to the test, as they always do; good to have people that aren’t afraid of a challenge. Jerry Basham and Tony Gish have worked to include multiple personnel in training, pulling in as many of the operators and maintenance staff as possible, so that even those stationed at the South Plant will be familiar at a basic level with the new plant, in case of a need to fill-in. Some of that is pictured here.

   ![Construction Progress at North WWTP – Startup/Training Sessions](image)

   **Construction Progress at North WWTP – Startup/Training Sessions**

   At present, it appears that the project will be complete by May 2016. This is several months behind the original schedule, and I believe we will be within our contractual rights to claim liquidated damages to cover our costs of excess engineering and inspection during the time this project has dragged out. Based on time to date, that penalty is up over $75,000. There may be claims from Codell in return for additional time; we’ll see.

   Additional work on the plant will include the two projects listed below, as well as some additional paving, and possibly a new liner and equipment for Basin #3. All those needs will fall in line with our other projects and compete for our scarce capital funds.

   **Digester Building:** Wauford has prepared plans for upgrades in this building, bringing access up to code and reworking piping to make it simpler to operate and easier to maintain. It will also add some automation to the sludge pressing operation. We received KDOW approval for this project in early December, but will likely not take bids until late 2016. We are installing some conduit required for this project on Codell’s project, to avoid having to dig up freshly placed concrete paving.

   **Clarifier Repairs:** The two existing secondary clarifiers are in need of maintenance, including painting and repair of the large rotating mechanisms in the center, and replacement of the weirs and baffle plates. It’s difficult to know how much this is going to cost, until we get further into it; if the
mechanisms are rusted through in a lot of places, it might be easier and more cost-effective to replace them. Our approach will be to contract for a limited amount of sand-blasting services, and then determine our best course when we have a better idea of what shape the metal parts are in.

2. **Atkinson Park Sewershed Study - Myrene Drive Sewer Pump Station:**
   Phased in five sections, design of these projects is progressing. Surveying for a new force main route from Myrene to Atkinson Park PS, and from Atkinson Park to 14th Street, and down 14th to the east side of Green, has been completed. Have started on the process of writing easements, and acquiring those will follow; a time-consuming and lengthy process (appraisals, offers, etc.) usually.
   
The construction of a revamped Myrene Drive pump station is being studied further, to see if there are better alternatives for location and/or arrangement of this station in a cramped location without much room to maneuver. This may require temporary easements from surrounding property owners.

3. **Frontier Tank Rehab and Painting Project:**
   Happy to report that painting of this tank is complete; didn’t really think that would happen before spring, and it wouldn’t have if we hadn’t had one of our driest and warmest fall/early winter periods, ever. The contractual completion date was 24 November, and the Contractor will be charged liquidated damages of $500 per day for at least a portion of the time that work ran past that deadline. Our additional costs due to delay include inspection by the design engineer, and a special painting/coating consultant who has made several additional trips to inspect substandard or incomplete work. Recouping that cost is part of the reason for the LDs.
   
   Overall quality of the work is very good, and the tank really shines. A small amount of work remains outside the actual painting, like installing the fall protection system, and new fence around the lot.

4. **South Water Treatment Plant – Rehab Projects:**
   Several projects were included in a 2014 preliminary engineering report for the SWTP. We are attempting to set up a meeting with Tyson to discuss these projects and provide them information on our plans.
   
   **Raw Water:** Plans for the Raw Water & Effluent Lines Relocations have received KDOW review and approval. New agreement with Big Rivers has cleared the way to bid this project, next fiscal year.
**Membrane Filtration Plant:** Award of the membrane equipment was made to GE/Xenon, and they set up a pilot plant that has confirmed the choice of the equipment; that experiment is now concluded, and plant design is progressing. Have reviewed design at the 30% mark, and Wauford will be setting up a meeting with the South operations staff, to solicit their input on some layout questions in the lab/control room.

**Update on Clearwell Project:** Bidding of the new 800,000 gallon prestressed tank is awaiting availability of funds, and we will likely not bid this until late this fiscal year or early next. The current Clearwell, while it needs painting, is not a critical water-quality issue at the moment. KDOW has granted plan approval, including an exception for the clearwell being a single compartment.

**Lake – Backup Water Source:** Have had discussions with Big Rivers about disposing of the dredged material in their ash disposal area, and they are not interested at this time. If we can do some leg work on a contract, this would be a good summer project, but the money may not be there to get it done. Until this is designed and bid, we don’t have a good idea of the cost.

**Repair of Metal Structures in the Current Plant:** The interim project to repair and paint the older portions of the plant will be bid in February, so that we can keep the existing plant operational for its remaining 5 to 10 year expected life (prior to switching to the membrane filtration concept). We’ve looked in detail at coating systems, repair methods and how to schedule this work, since it must be performed on weekends so that we can maintain potable water production during the week.

**Electrical Issues:** We’ve had some outages over the last few months, because our incoming power transformers are near their rated capacity. Rather than upgrading the transformers on an existing pole, we’ll be installing a pad mounted transformer and doing an upgrade in the process. This plant has a history of somewhat violent wind and weather so a ground-mount unit will reduce some of that risk. New pad and electrical work should be bid after the first of the year; HMPL will help us with transformer acquisition through their annual bid process.

5. **North Water Treatment Plant – Rehab and Basin Repair Project:** Contractor on this project is M. Bowling, Inc. of Henderson. Pre-Construction meeting was held on July 9th. Construction was delayed while we dealt with treatment issues arising from the algae bloom in the River. Work now proceeding, with one basin out of service. A new wall for one of the super-pulsators was poured on December 7th, and some of the piping which allows the front portion of the basins to be dried out is now in place.
New stairs to the lower level will remove the need for climbing down ladders, which should be a big safety improvement.

North WTP Renovations Project – Front portion of Basin 2, now dry (L) – Stairs to lower level (R)

6. South WWTP – Sludge Storage Building:
   Building complete. Awaiting delivery of conveyor. Project is going to be over budget; additional appropriation will be made from the “special Projects” line in the Capital Budget when we know the full extent.

7. Main Office (Bobby G. Gish Building) Roof and Building Repairs:
   Work by Danco Construction of Evansville has moved along well, the new roof is complete as well as repairs to the EFIS. Brick delivery was delayed due a supplier issue. Also will be having our architect on this project take a look at security upgrades, both for the Admin Building and the front office at the SOC.

8. Highway #41A South/Finley Addition Sewer System Project:
   Springfield Drive pump station complete, and the gravity sewer portion is progressing well. There has been a major hiccup with the location of a high pressure Texas Gas main, which is at an elevation that will not allow our 18” gravity sewer to pass with enough clearance, but we are working with the County’s design engineer to overcome this. Project is 70% complete through the end of December. Contractor has begun working on the plumbing connections to homes, although actual hookups will require most of the project to be completed first, so everything works and the wastewater has a place to go.

9. Countryview Subdivision Stormwater Project: (no change since last report)
   We have a joint project in the current budget to begin provision of storm sewers in this neighborhood. The City committed $100,000 for this fiscal year, as did we. Progress meeting was held in October, and we are moving forward with some minor changes to our plans. Easements will likely be a holdup, since we must cross property to get ditches out to the creek, which basically surrounds this neighborhood. Met with Corps of Engineers representative to determine needs for permitting of the outlets to the creek, and to avoid crossing wetland areas.
10. Water Model: (no change since last report)
Strand Associates is working on project-related updates to our water model. This includes our plans for future improvements to the south and west sections of the north (City) service area. With painting of the College Tank scheduled for next year, we need to determine if the future plans for enhancement in that area will require the tank to be elevated. Also included in the study is a look at continuing our “backbone” water main down South Main Street, extension of additional lines in the Borax-Ohio-Riverport area, and how a new 41A storage tank might play into these plans.

11. Graham Hill and Green River Road Pressure Zone Studies:
Contracts negotiated and signed. Preliminary pressure testing of the existing system will be the first items performed on these studies. We met with Wauford to discuss their work on the Graham Hill station; also with Strand on the Green River Road station. Neither of these projects is currently funded, so there’s no great sense of urgency. Having future projects like these, which probably need to be done at some point but aren’t critical, is a good idea, so we can use up excess funds as they become available, even if in small amounts.

12. College Tank Painting:
Award made to Strand Associates. Haven’t made much progress on this, awaiting completion of the modeling report mentioned above.

13. Vine Street Tank Painting: (no change since last report)
On-site visit with Wauford and their electrical consultant was held on 12 October. The “dry” interior portion of this tank is in excellent shape, and will likely only require power-washing and some touch-up painting. The exterior will need to be sand- blasted, as the coating is significantly deteriorated. We also are adding construction of a more permanent electrical room inside the tank, to house radio repeater equipment for us, the Fire Department and the Housing Authority.

14. Wash Truck: (no change since last report)
New unit has been ordered; typical delivery takes about 8 months. Current truck is well past its useful life, and will likely be declared surplus and sold on GovDeals.

15. Vehicle Replacements: (no change since last report)
Action Report processed in September, and new vehicles are ordered. We are replacing a few crew trucks, and one truck at the plants. One of the older trucks will be retained as a “sub” for a crew truck, allowing us a little more flexibility when maintaining those vehicles.

16. North Main Street Pressure Zone:
Plans have been prepared, and have been submitted to KDOW for approval. We have issued a bid for materials, which will be received before we do an action report authorizing this project. Current plan is to do the installation with our own forces.

We require two easements for this project. One will run up Methodist Hospital’s back driveway from Merritt Drive. They have agreed to that easement, and to also making it an access easement for the Atkinson Park tank, which we needed to have. In exchange for the easement, we’ve agreed to apply a 1-1/2” surface coat of pavement on that drive, when we’re done with the installation. We estimate that additional cost to be $ 12,000.

The other easement runs down a private driveway from Craig Drive to N. Main Street at 811 N. Main. We are going to repave that driveway, in exchange for the easement. Cost of the paving should be around $ 6,000. In both cases, wanted to draw your attention to this before the easements are signed.
in the interest of transparency. Will bring the easements to you for acceptance so that formal Board action is in the record, due to the expenditure of construction funds tied to the easements.

17. South Wastewater Treatment Plant – Repairs to Basin # 6 (no change since last report)
   Basin 6 of the South Wastewater Plant was taken out of service in 2008 due to a slope slip under the liner. Since that time, we’ve been able to get by without this basin, knowing that at some point we would need to bring it back up. That point is now, based on increases in biological loadings from Tyson. The slope failure has not worsened, and an action report for new diffuser equipment and some liner repairs will be processed before we begin work, likely in the spring. The equipment is single-source, installation will be by our staff, and we will also be repairing portions of the liner.

18. 6th Street Water Main Replacement:
   Part of our ongoing projects to replace century-old cast-iron mains, we have materials for this project on order. The area runs from North Adams Street to Lambert Street, and on Lambert from 6th to 5th, a total of about 4 blocks. These lines need to be replaced for system reliability, and for potential water quality issues. Installation will be by our crews.

19. U.S. 60 West Water Booster Station:
   Work is nearly complete, but we’re waiting on startup until we do some investigation on the upstream side to make sure the suction side of the station won’t cause pressure problems in those parts of our system. This is something that the model shows, but we believe it’s manageable with carefully planned startup and operation. It would be alleviated by our future project to install a large diameter main on S. Main Street, but that project is pretty far off, though badly needed. The booster station project is going to finish about $15,000 over budget, around 8% on a $200k total, which we will take from the Special Projects line. This overage is due to this being a somewhat unique project, and our unfamiliarity with all we ultimately had to do. Part of the extra cost related to work necessary to get power to the building, which we had to contract out.

   At the same time, recall that we saved a lot of money on this installation by re-purposing the pumps and control skids from the temporary Barret Boulevard station that was built during the Atkinson Park tank disaster.
HUMAN RESOURCE REPORT
HWU Human Resources Summary: January 25, 2016

**Staffing Levels:**

1. HWU (SOC) Secretary [1 position]: individual scheduled to start January 25th
2. Utility System Crew Leader [1 position]: waiting on drug screen results
3. Utility System Worker III [1 position]: register sent to department on December 8th
4. Utility System Worker I [1 position]: interviews conducted January 7th
5. Maintenance Technician [2 positions]: register sent to department on January 20th
6. Seasonal Utility System Worker [3 positions]: staffing agency is working to fill 2 positions; no request for action for 3rd position
7. SOC – Seasonal Worker [4 positions]: no request for action
8. Treatment Plants – Seasonal Maintenance Worker [1 position]: no request for action for SWW
9. NWWTP Temporary Project – Temporary Worker [2 positions]: one temporary agency worker scheduled to start January 25th; temporary agency working on a 2nd worker

**Safety Report (as of 12/31/2015):**

<table>
<thead>
<tr>
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<th>HWU</th>
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<tr>
<td>Hours Worked</td>
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<table>
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- 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.

- No recordable incidents in December
- The December comprehensive fixed facility safety audits of the North Water Treatment Plant and North Wastewater Treatment Plant. A few minor issues were identified at both treatment plants that were immediately corrected. Both locations were last audited in September 2015.

**Other:**

- A 9-month WKU Supervisor Certificate program is scheduled to begin March is available through NKTC at Kyndle. One HWU supervisor is scheduled to complete the program in February.

**Upcoming City-wide Events:**

- OSHA 30-hr card for General Industry being scheduled for February, March, April and May
- MUTCD (basic flagger training) is scheduled for May 17th
SAFETY REPORT
A. Safety Committee:

The monthly safety committee meeting was postponed due to holidays and scheduling conflicts.

B. Training

Training performed in December:

1. Safety meetings are continuing for the crews at the SOC.

C. Safety Inspections:

1. Administration Building
   - There were no issues noted during site visits.

2. Systems Operation Center (SOC):
   - There were no issues noted during site visits.

3. WTP North:
   - See facility audit below.

4. WWTP North:
   - See facility audit below.

5. WTP South:
   - There were no significant safety issues found during periodic site visits. These visits unlike the complete audits below may not cover every area of the facility on the day visited. Site visit dates in December were on the 1st, 8th, 9th, 15th, 16th, and 21st.
6. **WWTP South:**

   - There were no significant safety issues found during periodic site visits. These visits unlike the complete audits below may not cover every area of the facility on the day visited. Site visit dates in December were on the 1st, 8th, 9th, 15th, 16th, and 21st.

7. **Water Distribution/ Collection System:**

   - There were no safety issues with employees observed during safety site visits and proper PPE and signage was being used.

**D. Comprehensive Safety Audits:**

1. **WTP North:**

   There was one minor issue noted that has been corrected.

2. **WWTP North:**

   There was a few minor issues noted during the audit which have been corrected.

**E. Recordable Injuries:**

1. There were no recordable injuries in December.
GENERAL MANAGER’S REPORT
Regulatory Issues

No new word on this front. The LTCP/CJ Termination and the Local Plan Approval agreed order are still outstanding. The document we’ve prepared dealing with our Post-Construction monitoring program, the definition of overflows, and other related matters is on the back-burner until we get a nod from Frankfort that things there have settled down from the transition, Legislative session, etc.

On the local regulatory front, some minor changes to wording in the Sewer Use Ordinance are on the agenda tonight. Mostly minor clarifications, and semantics.

Finance & Budget - Equipment

We have purchased a 25-foot tilt-trailer (24,000 payload) for use in moving some of our larger equipment, including most of our backhoes, mini-excavators and some other pieces of equipment. The cost is $16,684. Currently, we contract moving these items for around $200 a pop, so if we did that twice a month (a conservative number), payback is about 3-1/2 years. Owning this also allows us to respond faster in emergency situations.

We identified $235,000 in the 2015-2016 Capital Budget as “Equipment”, and this is coming out of that line item. This purchase is less than $20,000, so by policy we don’t have to do a Board Action Report; just wanted to let you know, as this is a material amount and we have been accused in the past of having too much equipment.

Finance & Budget, Part 2 - Personnel

We currently have two people on call for emergency and after-hours situations. One carries a pager phone and is the first responder. This duty is rotated among the 17 Utility System Crew Workers, so it works out to once or twice a year, and is for a two-week pay period each time. The other on-call person rotates between our Crew Leaders, who may be called out by the Pager guy if work needs to be done immediately, or to verify that we can wait until the next business day. A leak on a two inch line on Alvasia Street is different from a leak on the 20” line in Green Street, and we have this more senior and seasoned person make those calls. With five Crew Leaders, this duty hits 5 or 6 times a year, but the volume of calls is less than the Pager person. In 2015, a crew was called out after hours a total of 10 times.

The rub often comes when that Crew Leader tries to call in additional help. Very often, it’s hard to get people to answer the phone and respond. At our last Crew Leader meeting, they suggested that we put a full crew on call for each period, so that there are dedicated people available, who are compensated for this duty. As a way of easing into this, I’m suggesting that we add an equipment operator on-call, instead of a full, dedicated crew.

This has several advantages from a management standpoint. Having a crew leader and a USW III on call should make us more efficient, since it will be employees that work together every day, know each other, and have complementary strengths. It will cut down our response times, because the Crew Leader will know who to call, and won’t have to search the roster for 2 people.
Having only the operator in addition to the crew leader also makes more crew members (USW I’s and II’s) available for the regular pager duty. This arrangement “spreads the love”, equally between more crew members, which is fairer.

The downside is increased cost. On-Call personnel are paid an additional 8 hours of straight time for each 7 day period on-call, pro-rated for shorter periods. This is in addition to being paid OT for actual time worked, which won’t increase under this policy change. Adding an additional body, 52 weeks, 8 hours, at a blended wage rate of about $20 per hour comes to an additional annual expense of $8,320. Not a large amount in the big scheme, but something we wanted to run by the Board, before making this a permanent change.

With your blessing, we’ll start this on a trial basis and see if it has the desired results. We may also be putting an additional person on-call to respond to emergency locate requests. This needs to be a senior person, with extensive knowledge of our systems, so the pool will include some people outside the normal on-call pool. We plan to compensate this as a minimum 3-hour pay per call-out, since it varies so much through the year.

Side note: I’m pleased that this change is something that came up from the guys. Points out that we have good leadership at the crew leader level, who want to make things fair and equitable, and that they’re not afraid to voice their opinions. We had a breakfast meeting with all the field crews and their supervisors on the 13th, to talk about this and other issues as we transition to our new Field Superintendent/Asst. Superintendent, organization chart/model. Good, spirited discussion, as always.

**Emergency Planning**

The Resolution we’re reviewing tonight on succession planning in an emergency highlights the need we have to be prepared for any situation. Along those lines, we’ve been looking at the costs for some level of emergency power at our 5 main locations (the SOC and the four plants, the Admin Building being lumped in with the North WTP). Cost will be in the range of $30k to 40k per location. This level of expenditure keeps the lights and HVAC on in the offices; trying to provide pumping capability for the plants would be prohibitively expensive, but keeping the offices powered up allows us a place of refuge, while we attempt to pull things together for temporary pumps and other options that would restore full services during a longer term disaster or emergency.

Electrical engineering is outside our internal areas of expertise. When we did RFP’s for standby engineering services several years ago, the only firm that responded locally for EE services was Three I Engineering in Evansville. They also subsequently did the structural analysis on the Intake Bridge, and we were pleased with their performance. With your endorsement, I would like to contract with Three I to perform the engineering services to get this generator project started. Since they were the only firm to respond to our 2010-2011 RFP, I feel comfortable that we would end up with them if we reissued the RFP, and going directly to them will save us some time and expense. While we’ve been issuing RFPs on most engineering work, contracting directly with a firm that we already have a working relationship with is allowed under KRS 45A.740.
We would of course bring this back to you for approval before moving forward with procurement, construction or installation. Due to costs, we may have to stretch this out over more than one year, too.

**FOG Policy**

The policy on the agenda tonight (F-500) deals with our FOG program. We’ll discuss in as much detail as you can stand, but this is an important item that addresses problems with deposition of fats, oils and grease that usually accompany food service establishments. FOG is capable of causing interference, damage, or operational problems to structures or equipment in the HWU wastewater system, and reducing FOG through proper handling procedures, grease traps and disposal will, over time, reduce blockages, backups and overflows. It’s a “best practice” that we should have been doing all along, but has recently risen to the forefront on EPA’s radar. Many restaurants are already compliant or partially so, we just haven’t been inspecting them to prove it. We’ve had major problems in years past in certain areas of town, especially adjacent to the strip on US 41 North.

Progressively higher standards will apply under this policy, with smaller stores required to have minimal grease control, on up to schools, hospitals and jails being required to perform to higher standards. While it will apply to all new food service entities, we’ve tailored this policy to allow existing food service establishments to be grandfathered in, unless we identify specific problems with FOG downstream. When an existing facility upgrades (changes class, significantly modifies plumbing, or increases seating capacity by 20%), it would be required to come into compliance.

Kevin Roberts and our new Pretreatment Coordinator, David Brister, have done a good job of highlighting this need, getting us to the point of implementation, and will be responsible for the program moving forward.
1.0 POLICY STATEMENT: The City Code of Ordinances contains the following sections:

*Chapter 23-27 Use of public sewers*
(e) Prohibited discharges into sanitary sewer and combined sewer. No user shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with performance of the POTW. These general prohibitions apply to all such users of a POTW whether or not the user is subject to national categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements. A user shall not contribute the following substances to the POTW:

(4) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the wastewater facilities.

*Chapter 23-98 Water and sewer charges*
(a) Special rates:
(1) If the sewage, water or other liquid wastes being discharged into the sewers from any building or premises is determined by the city to contain unduly high concentrations of any substances which add to the operating cost of the sewer facilities of the city, the city may establish special rates or charges as to such class of building or premises, or the city may require the owner or other interested party to specially treat such sewage, water or other liquid wastes before it is discharged into the sewers.
(2) The city may establish rules and regulations regarding the use of the sewer facilities which may control the amount and characteristics of wastes permitted to be discharged therein where such quantities or characteristics may be injurious to the works or deleterious to their operation.

Environmental regulations and best practices require the Henderson Water Utility (HWU) to prevent sewer system blockages and obstruction in its sewer system caused by fats, oils and grease (FOG). Pollution discharge limits are specified in the City Code of Ordinances.

The management of an effective FOG program with commercial and industrial facilities, and food service establishments (FSEs), will help to prevent sewer system overflows and will reduce operational costs to HWU.

2.0 SCOPE AND IMPLEMENTATION

2.1 DEFINITIONS:

a) **HWU**: Henderson Water Utility, of Henderson, Kentucky.

b) **Fats, Oils & Grease (FOG)**: Organic polar compounds derived from animal and/or plant sources. FOG may be referred to as "grease" or "greases" herein.

c) **Food Service Establishment (FSE)**: Any establishment, business or facility engaged in preparing, serving, packaging, or making food available for sale or consumption. Single family residences are not an FSE, however, multi-residential facilities may be considered a FSE at the discretion of HWU. Food Service Establishments will be classified as follows:
i. Class 1: Deli - engaged in the sale of cold-cut and micro-waved sandwiches/subs with no frying or grilling on site; Ice Cream shops and beverage bars as defined by NAICS 72213; Mobile Food Vendors as defined by NAICS 722330.

ii. Class 2: Limited-Service Restaurants (a.k.a. Fast Food Facilities) as defined by NAICS 722211; Caterers as defined by NAICS 722320.

iii. Class 3: Full Service Restaurants as defined by NAICS 722110

iv. Class 4: Buffet and Cafeteria Facilities as defined by NAICS 72212

v. Class 5: Institutions (Schools, Hospitals, Prisons, etc) as defined by NAICS 722310 but not to exclude self-run operations.

d) Brown Grease: Fats, oils and grease that is discharged to grease control equipment.

e) Yellow Grease: Fats, oils and grease that has not been in contact or contaminated from other sources (water, wastewater, solid waste, etc.) and can be recycled.

f) Grease Control Equipment (GCE): A device for separating and retaining wastewater FOG prior to wastewater exiting the FSE and entering HWU's wastewater collection system. GCE is constructed so as to separate and trap or hold fats, oils and grease substances. These devices include grease interceptors, grease traps, or other devices approved by HWU.

g) Grease Interceptor: Grease Control Equipment consisting of a large tank, usually 1,000 gallon to 2,000 gallon capacity, which provides FOG control for an FSE. Grease interceptors will be located outside the FSE, unless a variance request has been granted.

h) Grease Trap: Grease Control Equipment identified as an “under the sink” trap, a small container with baffles, or a floor trap. For an FSE approved to install a grease trap, the minimum size requirement is the equivalent of a 20-gallon per minute/40 pound capacity trap. All grease traps will have flow control restrictor and shall be vented.

i) Grease Recycle Bin or Container: Container used for the storage of yellow grease.

j) North American Industry Classification System (NAICS): A system developed by the U.S. Office of Management and Budget that is used to classify business establishments based on the type of industry or process at a facility. The website is found at http://www.census.gov/epcd/www/naics.html.

k) Series Interceptors: Grease interceptor tanks installed one after another in a row and connected by plumbing pipe.

l) Tee (Influent & Effluent): A tee-shaped pipe extending from the ground surface below grade into the grease interceptor to a depth allowing recovery (discharge) of the water layer located under the layer of FOG. Influent & Effluent tees are recommended to be made of schedule 40 PVC or equivalent material, and extend to within 12" to 15" of the bottom of the interceptor.

m) Black Water: Wastewater containing human waste, from sanitary fixtures such as toilets and urinals.

n) Gray Water: Refers to all other wastewater other than black water as defined in this section.
o) General Manager: The person appointed by the Water and Sewer Commission under section 23-43 of the City Code of Ordinances, to direct the employees of HWU. Where this policy refers to the General Manager, it may be understood to include a designated HWU employee to whom enforcement duties have been assigned.

2.2 GENERAL REQUIREMENTS:

a) All existing Food Service Establishments (FSEs) are required to have grease control equipment (GCE) installed, maintained and operating properly, in accordance with this FOG Management Policy.

b) All FSEs will be required to maintain records of cleaning and maintenance of GCE. GCE maintenance records include, at a minimum, the date of cleaning/maintenance, company or person conducting the cleaning/maintenance, volume (in gallons) of grease and wastewater removed, and final disposal location. A completed manifest from a grease waste hauler, that includes all the minimum information mentioned above, will meet this requirement.

c) GCE maintenance records must be available at the FSE premises so they can be provided to HWU or their representative, and/or the Health Department. The FSE shall maintain GCE maintenance records for three (3) years.

d) No FSE shall discharge oil and grease in concentrations that exceed the HWU limits for oil and grease.

e) Owners of Commercial Property may be held responsible for wastewater discharges from a leaseholder on their property. Enforcement action, billing, etc., will be to the person or entity in whose name the service is held.

f) Grease Control Equipment Certification Requirement: All establishments with grease control equipment must have their grease interceptor or grease trap inspected and certified annually by a HWU-certified grease waste hauler or plumber. If a grease interceptor or grease trap appears to be in good working order and condition and is appropriate in size, configuration, and ability to separate and retain wastewater FOG prior to wastewater exiting the FSE, then the grease control equipment will be deemed to have passed the certification requirement, and no further action is required until the next annual inspection. If a grease interceptor or grease trap is not in good working order or condition, or is not appropriate in size and configuration, or is otherwise not able to separate and retain wastewater FOG prior to wastewater exiting the FSE, then the grease control equipment will be deemed to have failed the certification requirement, and a corrective action response is required from the FSE owner or authorized representative. Completed certification forms (Grease Interceptor Certification - Form A, or Grease Trap Certification - Form B) must be completed and signed by the grease waste hauler or plumber, as well as the FSE owner or authorized representative, and submitted to HWU. The original certification form must be submitted to:

HWU
Attn: FOG Program
230 North Alvasia Street
Henderson, Kentucky 42420
g) Failure of a Grease Interceptor Certification, or Grease Trap Certification: The FSE owner or authorized representative is responsible for including detailed "Corrective Action Response" information on the Grease Interceptor Certification form, or the Grease Trap Certification form that is submitted to HWU. If necessary, additional pages may be attached to the certification form. At a minimum, the "Corrective Action Response" information must include the reason for the failed certification, what corrective action will be taken to correct the problem, and the date the corrective action will be completed.

h) FSEs shall observe Best Management Practices (BMPs) for controlling the discharge of FOG from their facility. BMPs are listed in Attachment 1 to this policy.

i) FSEs shall dispose of yellow grease in an approved container or recycle container, and the contents shall not be discharged to any sanitary sewer line, storm water inlet, drain or conveyance. Yellow grease, or oils or grease, poured or discharged into the FSE sewer lines or HWU's sewer system is a violation of the HWU Sewer Use Ordinance.

j) It shall be a violation to push or flush the non-water portion of the contents of GCE into the public sewer.

2.3 APPROVED GREASE WASTE HAULER LIST:
To ensure proper maintenance of grease control equipment and proper disposal of the FOG waste, HWU will maintain an "Approved Grease Waste Haulers List". Criteria for the grease waste hauler to be placed on the "Approved Grease Waste Haulers List" include, but are not limited to, the following:

- Signature of the grease waste hauler company’s authorized representative and submittal to HWU of a completed "HWU Approved Grease Waste Hauler Agreement Form".
- The grease waste hauler agreement will include grease waste hauler reporting requirements to HWU, and making records available to HWU personnel, or their authorized representative. Failure to comply with any provision of the grease waste hauler agreement will result in removal of the grease waste hauler from the "Approved Grease Waste Haulers List", and/or enforcement action.
- Attendance at the HWU Grease Control Equipment Certification Class.
- HWU, at the discretion of the General Manager, may implement a FOG Treatment, Disposal and Resource Recovery Plan, in the form of a Request for Proposals (RFP) for the treatment and disposal of FOG waste generated from area food service establishments. The successful RFP respondent would provide some form of beneficial reuse of the FOG waste that is treated. Also, the RFP may include a cost estimate for maintenance (complete pump of grease interceptors and grease traps) and certification of the grease control equipment of all food service establishment grease interceptors and grease traps in the HWU service area. The results of the RFP may provide a single source for GCE pumping, GCE certification, FOG treatment, FOG disposal, and reporting to HWU. The total cost of the food service establishment GCE pumping, and FOG treatment and disposal will be the same price or at a lower price than the average market cost of GCE Maintenance.
2.4 GREASE CONTROL EQUIPMENT INSTALLATION REQUIREMENTS:

a) New Food Service Establishment or Upgrading of Existing Food Service Establishment: Any new FSE, or upgrading of an existing FSE, shall require the installation of a grease interceptor.

For purposes of this section, “Upgrading” of an existing FSE shall include cumulative increases in seating capacity of the FSE equal to or greater than 20 percent above the original seating capacity of the FSE; significant changes to internal plumbing; or changes in Class as defined in section 2.1 (c) above.

New or upgraded food service establishments shall submit a FOG plan to HWU for approval. The FOG plan shall include identification of all cooking and food preparation equipment (i.e. fryers, grills, woks, etc.); the number and size of dishwashers, sinks, floor drains, and other plumbing fixtures; type of FSE classification; type of food to be prepared, served, or packaged; and plans for the grease interceptor dimensions and location. HWU will review the FOG plan, grease interceptor sizing, recommend changes, and issue a permit in accordance with the approved plan, as necessary to aid in the protection of a FOG discharge from the FSE.

An FSE’s internal plumbing shall be constructed to separate sanitary (restroom) flow from kitchen process flow. Sanitary flow and kitchen process discharges shall be approved separately by HWU and shall discharge from the building separately. The kitchen process line(s) shall be plumbed to appropriately sized GCE. Kitchen process lines and sanitary lines may combine prior to entering the public sewer; however the lines cannot be combined until after the GCE.

b) Existing Food Service Establishment: All existing FSEs shall submit plans and install at the owner’s expense a grease interceptor in accordance with the HWU FOG Management Policy, within ninety (90) days after notification by HWU, if and when HWU determines that a potential fats, oils and grease problem exists which is capable of causing interference, damage, or operational problems to structures or equipment in the HWU wastewater system. HWU shall retain the right to inspect and approve installation of the grease interceptor.

c) Recommended Standards for New Multi-Unit Facilities:

1) New multi-unit facilities (strip malls or strip centers) should consider installing two separate sewer line connections for each unit within the multi-unit facility. One sewer line would be for sanitary wastewater and one sewer line for the kitchen area, or potential kitchen area, of each unit.

2) The kitchen area, or potential kitchen area, sewer line should be connected to floor drains in the specified kitchen area, and connect, or be able to connect, to other food service establishment kitchen fixtures, such as 3 compartment sink, 2 compartment sink, pre-rinse sink, mop sink and hand wash sink. New multi-unit or "strip mall" facility owners should contact HWU prior to conducting private plumbing work at the multi-unit facility site. Multi-unit facility owners, or their designated contractor, should have plans for separate private wastewater lines for kitchen and sanitary wastewater for each unit. In addition, the plans should identify...
"stub-out" locations to accommodate a minimum 1,000 gallon grease interceptor for each unit of the multi-unit facility.

3) HWU may allow sharing of grease interceptors by FSEs, with HWU approval of the grease interceptor sizing.

4) New multi-unit facility owners should consider suitable physical property space and sewer gradient that will be conducive to the installation of an exterior, in-ground grease interceptor when determining the building location.

5) FSEs located in a new multi-unit facility shall have a minimum of a 1,000 gallon grease interceptor installed, unless that FSE is identified as a Class 1 facility. Class 1 FSE facilities are exempt from the requirements to install grease interceptors. Sanitary wastewater, or black water, shall not be connected to GCE.

d) **Variance to Grease Interceptor Installation:** At the discretion of the General Manager, some FSEs may receive a variance from the required installation of a grease interceptor.

e) **Approval of Grease Control Equipment:** All new FSEs and FSEs that have upgraded their facilities must contact HWU for final approval of the grease control equipment. This will include onsite inspection of the grease control equipment by HWU. Failure of the FSE to contact HWU to conduct the inspection of the new GCE will result in escalation of enforcement action.

f) **Grease Control Equipment Sizing:**

Unless otherwise stipulated by HWU, minimum acceptable size of grease control equipment for each FSE Classification will be as follows:

**Class 1:** Deli, Ice Cream shops, Beverage Bars, Coffee Shops, Mobile Food Vendors- 25 gpm/50 pound Grease Trap

**Class 2:** Limited-Service Restaurants / Caterers - 1,000 gallon Grease Interceptor

**Class 3:** Full Service Restaurants- 1,000 gallon Grease Interceptor

**Class 4:** Buffet and Cafeteria Facilities- 1,500 gallon Grease Interceptor

**Class 5:** Institutions (Schools, Hospitals, Jail/Prison, etc) - 2,000 gallon Grease Interceptor, or two 1,000 gallon units installed in series.

These are minimum sizes. The grease control equipment minimum acceptable size for the above listed FSE classifications (Class 1 through 5) must be met. The FSE shall submit calculations based on code, industry standard or best practices, if different sizes are proposed. Sizing of the GCE is the sole responsibility of the FSE.

For discharges from a dishwasher, the GCE size shall be increased a minimum of thirty percent (30%) of the minimum sizing requirement, to prevent short-circuiting when the extremely hot water from a dishwasher is introduced to the GCE.

HWU will review GCE sizing information received from the completed Grease Control Inquiry Form or the FSE’s engineer, architect or contractor. HWU will make a decision to approve or require additional grease interceptor volume based on the type of FSE, the number of fixture units, and additional calculations.
Grease interceptor capacity should not exceed 2,000 gallons for each interceptor tank. In the event that the grease interceptor calculated capacity exceeds 2,000 gallons, the FSE shall install additional interceptors in series. Grease interceptors that are installed in series shall be installed in such a manner to ensure positive flow between the tanks at all times, i.e., tanks shall be installed so that the inlet invert of each successive tank shall be a minimum of 2 inches below the outlet invert of the preceding tank.

g) **Grease Control Equipment Specifications**: Grease Control Equipment must remove fats, oils, & grease at or below the HWU pollution discharge limit of 150 mg/L (City Code section 23-30). Failure to comply will require enforcement action in accordance with the Enforcement Response Plan.

**h) Grease Interceptor Design**

1) **Piping Design**

   a. The inlet and outlet piping shall have 2-way cleanout tees installed.

   b. The inlet piping shall enter the receiving chamber 2 1/2" above the invert of the outlet piping.

   c. On the inlet pipe, inside the receiving chamber, a sanitary tee of the same size pipe in the vertical position with the top unplugged shall be provided as a turndown. To provide air circulation and to prevent "air lock", a pipe nipple installed in the top tee shall extend to a minimum of 6" clearance from the interceptor ceiling, but not less that the inlet pipe diameter. A pipe installed in the bottom of the tee shall extend to a point 2/3 the depth of the tank. The inlet tee should be made of Schedule 40 PVC or equivalent material. See Figure 1.

   d. The outlet piping shall be no smaller than the inlet piping, but in no case smaller than 4" ID.

   e. The outlet piping shall extend to 12" above the floor of the interceptor and shall be made of a non-collapsible material. Minimum requirement for outlet piping is Schedule 40 PVC.

   f. The outlet piping shall contain a tee installed vertically with a pipe nipple installed in the top of the tee to extend to a minimum of 6" clearance from the interceptor ceiling, but not less that the pipe diameter, with the top open. Minimum requirement for the outlet tee is Schedule 40 PVC. See Figure 1.

2) **Baffles**

   a. The grease interceptor shall have a non-flexing (i.e. concrete, steel, etc.) baffle the full width of the interceptor, sealed to the walls and the floor, and extend from the floor to within 6" of the ceiling. The baffle shall have an inverted 90 degree sweep fitting at least equal in diameter size to the inlet piping, but in no case less than 6" ID. The bottom of the sweep shall be placed in the vertical position in the inlet compartment 12" above the floor. The sweep shall rise to the horizontal portion, which shall extend through the baffle into the outlet compartment. The baffle wall shall be sealed to the sweep. See Figure 1.
b. The inlet compartment shall be 2/3 of the total liquid capacity with the outlet compartment at 1/3 liquid capacity of the interceptor.

3) Access Openings (Manholes)

a. Access to grease interceptors shall be provided by a minimum of one manhole per baffle chamber and of 24-inch minimum dimensions terminating 1 inch above finished grade with cast iron frame and cover. An 8" thick concrete pad extending a minimum of 12" beyond the outside dimension of the manhole frame shall be provided. One manhole shall be located above the inlet tee hatch and the other manhole shall be located above the outlet tee hatch. A minimum of 24" of clear opening above each manhole access shall be maintained to facilitate maintenance, cleaning, pumping, and inspections.

b. Access openings shall be mechanically sealed and gas tight to contain odors and bacteria and to exclude vermin and ground water, in a manner that permits regular reuses.

c. The manholes are to be accessible for inspection by HWU.

4) Additional Requirements

a. Water Tight - Precast concrete grease interceptors shall be constructed to be watertight. A static water test shall be conducted by the installer and timed so as to permit verification through visual inspection by HWU. The water test shall consist of plugging the outlet (and the inlet if necessary) and filling the tank(s) with water to the tank top a minimum of 24 hours before the inspection. The tank shall not lose water during this test period. Certification by the plumbing contractor shall be supplied to HWU prior to final approval of grease control equipment.

b. Location - Grease Interceptors shall be located so as to be readily accessible for cleaning, maintenance, and inspections. They should be located close to the fixture(s) discharging the greasy wastestream. If possible, Grease Interceptors should not be installed in "drive-thru" lanes or a parking area. Grease Interceptor access manholes shall never be paved over.

c. Construction Material - Grease Interceptors shall be constructed of sound durable materials, not subject to excessive corrosion or decay, and shall be water and gas tight. Each interceptor shall be structurally designed to withstand any anticipated load to be placed on the interceptor (i.e. vehicular traffic in parking or driving areas). Note: Concrete materials and other grease interceptor materials shall meet the standards of the American National Standards Institute, Inc. (ANSI) and the International Association of Plumbing and Mechanical Officials (IAPMO).

d. Marking and Identification - Prefabricated gravity grease interceptors shall be permanently and legibly marked in a location clearly and permanently visible with the following:
   1. Manufacturer’s name or trademark, or both
   2. Model number
3. Capacity

4. Month and year of manufacture

5. Load limits and maximum recommended depth of earth cover in feet; and

6. Inlet and outlet

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**Figure 1 – Grease Interceptor**

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### 2.5 Grease Interceptor Cleaning/Maintenance Requirements

a) Grease Interceptor minimum size will be 1,000 gallon capacity, and maximum size will be 2,000 gallon capacity. If the FSE requires additional capacity, then grease interceptors shall be installed in series.

b) Partial pump of interceptor contents or on-site pump & treatment of interceptor contents will not be allowed due to reintroduction of fats, oils and grease to the interceptor, which is not allowed pursuant to HWU Sewer System Ordinance 23-30(g) and the Code of Federal Regulations (CFR) § 403.5 (b) (8).

c) Grease interceptors shall be pumped in-full when the total accumulations of surface FOG (including floating solids) and settled solids reaches twenty-five percent (25%) of the grease interceptor's overall liquid depth. This criterion will be referred to as the "25% Rule". At no time shall the cleaning frequency exceed 90 days unless approved by HWU. Approval will be granted on a case by case basis, after submittal by the FSE.
documenting proof of proposed frequency. FSEs in Class 2 through 5 may require a pumping schedule of 30 days or 60 days to meet the 25% Rule.

d) The Grease interceptor effluent tee shall be inspected during cleaning and maintenance and the condition noted by the grease waste hauler’s company or individual conducting the maintenance. Effluent tees that are loose, defective, or not attached shall be repaired or replaced immediately.

e) Grease Interceptors shall have access manholes over the influent tee and effluent tee for inspection and ease of cleaning/maintenance. Access manholes shall be provided for all separate compartments of interceptors for complete cleaning (i.e. interceptor with two main baffles (three compartments) shall have access manholes at each compartment).

f) Grease Interceptors shall be certified annually by a grease waste hauler or plumber. Grease Interceptor Certification (Form A) shall be completed and submitted to HWU annually. See General Requirements 2.2 (f) & (g) above.

2.6 Grease Trap Sizing, Installation, Cleaning, & Maintenance Requirements

a) All grease traps shall have flow control restrictor and shall be vented. Failure to provide flow restrictor and venting will be considered a violation.

b) All new FSEs that are allowed to install grease traps shall have HWU approval prior to starting operations.

c) Grease Trap minimum size requirement is a 20 gallon per minute / 40 pound capacity trap.

d) Grease Traps shall have the Plumbing Drainage Institute certification, and be installed as per manufacturer’s specifications.

e) No automatic dishwasher shall be connected to an under-the-sink grease trap or floor grease trap. Dishwashers will cause hydraulic overload of the grease trap.

f) No automatic drip or additive feed systems are allowed prior to entering the grease trap.

g) A single grease trap device shall be installed for each significant kitchen fixture unit (i.e. each 3 compartment sink). HWU must approve the number of grease traps and connections to the grease trap.

h) During cleaning of the grease trap, the flow restrictor shall be checked to ensure it is attached and operational.

i) Grease Traps shall be cleaned of all fats, oils, and grease and food solids at a minimum of once every two (2) weeks. If the FOG and food-solids content of the grease trap is greater than 25%, then the grease trap must be cleaned every week, or as frequently as needed to prevent 25% of capacity being taken up by FOG and food solids.

j) Grease Trap waste should be sealed or placed in a container to prevent leachate from leaking, and then disposed, or hauled offsite by a grease waste hauler or plumber to an approved disposal location.
k) Grease Trap waste should not be mixed with yellow grease in the grease recycle container.

l) Grease Traps must be "certified" annually. See General Requirements 2.2 (f) & (g) above.

2.7 Accidental Discharge-Safeguards:

FSEs shall provide such facilities and institute such procedures as are reasonably necessary to prevent or minimize the potential for accidental discharge of fats, oils, and grease into the sewage collection system. This includes implementation of "Best Management Practices" protocols.

2.8 ‘Additives’ Prohibition for use as Grease Management and Control

a) Additives include but are not limited to products that contain solvents, emulsifiers, surfactants, caustics, acids, enzymes and bacteria.

b) This FOG management policy prohibits the use of enzymes, hot water, emulsifiers or other additives to cause oil or grease to pass through the user’s grease trap or grease interceptor designed to remove oil and grease. If HWU identifies FOG in the downstream sewer system from a FSE that is using an additive, then HWU may require the FSE to discontinue use of the additive.

c) Additive use will not be a substitute for regular, required cleaning or pumping of grease control equipment.

2.9 Right of Entry - Inspection and Monitoring

HWU, or an authorized representative, shall have the right to enter the premises of FSEs to determine whether the FSE is complying with the requirements of this policy and/or the Henderson Sewer Use Ordinance. FSEs shall allow HWU personnel or an authorized representative full access to all parts of the premises for the purpose of inspection, monitoring, and/or records examination. Unreasonable delays in allowing HWU personnel access to the FSE premises shall be a violation of this policy and the Henderson Sewer Use Ordinance.

HWU may require that the FSE install monitoring or additional pretreatment equipment deemed necessary for compliance with this policy and/or the Henderson Sewer Use Ordinance.

2.10 Fee Schedule:

HWU may charge inspection, monitoring, assessment, impact, and permit fees to the FSE to defray costs of implementation of the FOG program costs. The fee schedule is included in Attachment 2.

2.11 Enforcement Action

Enforcement action will follow procedures outlined in the “HWU Enforcement Response Plan for Sewer Use and MS4”, as adopted by the Water and Sewer Commission and the City of Henderson Board of Commissioners.

a) Initiation of Enforcement Action: Enforcement Action may be initiated against the FSE for, among other things, failure to clean or pump grease control equipment, failure to
maintain grease control equipment including annual inspections and installation of properly functioning effluent-T and baffles, failure to install grease control equipment, failure to control FOG discharge from the FSE, and use of additives so that FOG is diluted and pushed downstream of the FSE.

b) *Fats, Oils and Grease blockage in downstream manhole from FSE:* If FSE inspections and field investigations determine that a fats, oils and grease interference or blockage in the collection system, a wastewater pumping station, or the wastewater treatment plant is caused by a particular food service establishment, then that food service establishment shall reimburse HWU for all labor, equipment, supplies and disposal costs incurred by HWU to clean the interference or blockage. The charges will be added to the FSEs water/wastewater bill. Failure to reimburse HWU may result in termination of water service.

c) *FSE failure to maintain GCE after Notification or NOV due date:* If a FSE fails to pump, clean or maintain their GCE after a Notice of Violation due date, HWU may pump/clean the GCE to prevent additional FOG problems downstream. The FSE will be charged for the cost of pumping and maintaining the GCE, including HWU personnel costs. Mechanical failure of the GCE will be considered a violation of this FOG Management Policy and the Henderson Sewer Use Ordinance.

d) **Significant Noncompliance of Wastewater Discharge Limits:** U.S. EPA has defined "significant noncompliance" as violations that meet one or more of the following criteria:

1) Chronic violations of wastewater discharge limits, defined as those in which sixty-six (66%) percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;

2) Technical Review criteria (TRC) violations, defined here as those in which thirty-three (33%) percent or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily average maximum limit, or the average limit multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH). The following compatible pollutants are exempt from TRC consideration if they exceed the surcharge level but do not exceed upper ceiling: BOD, TSS, FOG;

3) Any other violations of a pretreatment effluent limit (daily maximum or longer-term average) that HWU determines has caused, alone or in combination with other discharges, interference or pass-through (including endangered the health of HWU personnel or the general public);

4) Any discharge of a pollutant that has caused imminent endangerment to human health welfare or to the environment or has resulted in HWU's exercise of its emergency authority to halt or prevent such a discharge;

5) Failure to meet a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, and attaining final compliance;
6) Failure to provide, within 30 days after the due date, required reports, such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

7) Failure to accurately report noncompliance;

8) Any other violation or group of violations that HWU determines will adversely affect the operation or implementation of the local pretreatment program. Generally, an isolated instance of noncompliance or a Category 0 violation can be met with an informal response or a Noncompliance Notification (NCN). Any Category 1 to Category 4 violations should be responded to with an enforceable order that requires a return to compliance by a specific deadline.

e) Noncompliance Notification (NCN): Generally issued by the HWU inspector/contractor field personnel, the Noncompliance Notification (NCN) is an official communication from HWU to the non-compliant user and/or owner of the premises that informs the user of a pretreatment violation. The NCN is issued for any problems identified with the grease control equipment operation, maintenance, or components. Also, an NCN will be issued when FOG is identified in the downstream sewer lines from a food service establishment. A normal response time or due date to respond to HWU is 30 days, but the NCN may have shorter response times, depending on the severity of the violation. Failure to respond by the designated due date on a NCN, will result in the issuance of a Notice of Violation, or additional escalation in enforcement action.

f) Notice of Violation (NOV): Generally issued by the Industrial Pretreatment Coordinator or FOG Program Manager, the Notice of Violation (NOV) notifies the non-compliant user and/or owner of violations of Henderson’s Sewer Use Ordinance. Within five (5) days of the receipt date of the NOV, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to HWU. Submission of this plan in no way relieves the user and/or owner of liability for any violations occurring before or after receipt of the notice of violation. A NOV does not contain assessment of penalties or cost recovery. The NOV provides the user and/or owner with an opportunity to correct the noncompliance on its own initiative rather than according to a schedule of actions determined by HWU. The NOV documents the initial attempts of HWU to resolve the violation. Authenticated copies of NOVs may serve as evidence in judicial proceedings.

g) Compliance Order: When the HWU General Manager finds that a user and/or owner has violated or continues to violate the HWU FOG Management Policy, a permit, or an order issued thereunder, the General Manager may issue a compliance order to the user and/or owner responsible for the discharge directing that, following a specified time period, water and wastewater services shall be discontinued unless adequate treatment facilities, devices, or other related appurtenances have been installed and are properly operated. Compliance Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the installation of pretreatment technology, additional self-monitoring, and management practices. The Compliance Order may include a requirement to provide a Schedule of Compliance.
h) **Schedule of Compliance**: A Schedule of Compliance is a detailed list of the steps to be taken by a non-compliant user and/or owner whereby compliance with all pretreatment regulations will be achieved. This schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable Pretreatment Standards (e.g. hiring an engineer, completing preliminary plans, executing contracts for components, commencing construction, etc.).

i) **Cease And Desist Order**: When the HWU General Manager finds that a user and/or owner has violated or continues to violate the HWU Sewer System Ordinance 23-3 or this FOG Policy or any permit or order issued hereunder, the General Manager may issue an order to cease and desist all such violations and direct those persons in noncompliance to:

1) Comply forthwith

2) Take such appropriate remedial or preventive actions as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

j) **Emergency Suspensions**:

1) HWU or the General Manager may suspend the wastewater treatment service and/or wastewater permit of a food service establishment, commercial or industrial user whenever such suspension is necessary in order to stop an actual or threatened discharge presenting or causing an imminent or substantial endangerment to the health or welfare of persons, the WWTP, or the environment.

2) Any user and/or owner notified of a suspension of the wastewater treatment service and/or the wastewater permit shall immediately stop or eliminate its contribution. In the event of a user’s and/or owner’s failure to immediately comply voluntarily with the suspension order, the control authority shall take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the WWTP, its receiving stream, or endangerment to any individuals. HWU or the General Manager shall allow the user and/or owner to recommence its discharge when the endangerment has passed, unless the termination proceedings set forth in Termination of Permit are initiated against the user and/or owner.

k) **Penalty Assessment**: Determining a penalty amount that reflects the violation's significance is extremely important. If the penalty is too small, its deterrent value is lost and the user and/or owner may regard the amount as a tax or nominal charge to pollute. If the penalty is too great, it could bankrupt the user and/or owner (making necessary investment in pretreatment equipment impossible or potentially forcing unnecessary closure). HWU has categorized the various types of violations, and assigned a penalty range to each category as shown in the following table. Penalty categories are determined by using the Enforcement Response Table included in Attachment 3. All penalty assessments shall be approved and signed by the General Manager or his designee. Penalty amounts are considered to be an economic deterrent to the illegal activity. Penalty ranges have been designed to recover any economic benefit gained by
the violator through non-compliance, and are in addition to, and not in lieu of, other expenses and charges authorized herein.

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<td>4</td>
<td>DIRECT LEGAL ACTION</td>
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Note: For Category 4, any penalties and/or costs to be assessed at the maximum penalty allowable by applicable law and included as part of the legal action.

Assessments for damages or destruction of the facilities of the WWTP, and any penalties, costs, and attorney's fees incurred by HWU as the result of the illegal activity, as well as the expenses involved in enforcement, are not part of this penalty assessment procedure.

3.0 RESPONSIBILITY: The HWU Environmental Compliance and Pretreatment Coordinator shall be responsible for the overall coordination for this process, under the direction of the Director of Plant Operations.

Exceptions to this policy must be approved by the General Manager.

APPROVED:

_________________________ Date:________
Tom Williams, P.E.
General Manager
BUSINESS

- Resolution #2016-01 – Revisions to Henderson Sewer Use Ordinance
- Resolution #2016-02 – Adopting Succession Plan for Continuity of Government
- Action Report #2016-03 – TOC Analyzer and Gas Chromatograph Purchase
- Request for Wastewater Service Outside City Limits – Robert L. Williams, 890 Morningside Drive
- Election of Officers
Date: 6 January 2016
Memo To: HWU Board & City Board of Commissioners
From: Tom Williams, P.E.
General Manager
Subject: Chapter 23 City Code of Ordinances - Revisions to Three Sections

Attached you will find proposed revisions to the City’s Sewer Use Ordinance (SUO), detailing changes to three sections. A brief discussion follows.

In our 2011 revisions to the SUO, we added several sections addressing the Municipal Separate Storm Sewer System (MS4). Section 23-27.4 dealt with depositing material on streets or drainage systems, and dealt only with the separate storm sewer areas. In practice, we have found that these restrictions are applicable to the combined sewer areas, since we would like to keep pollutants, yard waste, etc., out of the inlets in the combined system, too. Also, in practice, it’s hard to make the public aware of the lines between the MS4 and combined systems. Adding clarification will make this easier to enforce.

In Section 23-27.5 (i), we specify how future maintenance of a private stormwater facility will be guaranteed. Previously, we had thought that a land use restriction would be the best way to do that, but have found in practice that a formal agreement, or a note on the face of a plat, is a better way to handle this. Insuring future maintenance of privately installed stormwater treatment (quality) facilities is a requirement of our State-issued MS4 permit.

In Section 23-98 (e), we have previously required a property owner outside the City limits to agree to a waiver of annexation, in order to obtain wastewater service. The main change to this section we are proposing is to also require that for any customer requesting water service. This closes a small loophole that was recently encountered. The other changes in this section are minor semantics, or bring the section into compliance with current practice.

We will ask for HWU Board approval of these changes at the January Meeting on the 25th, and will get them on the agenda for City Commission approval as soon as possible after that.

In the meantime, if you have any questions or need further information on this subject, please feel free to call me at 270.869.6621 (Office) or 270.823.2573 (Cell).

Cc: Russell Sights, City Manager
Buzzy Newman, Asst. City Manager
Dawn S. Kelsey, City Attorney
HENDERSON WATER AND SEWER COMMISSION
RESOLUTION OF THE BOARD OF COMMISSIONERS

Resolution No. 2016-01

The following Resolution was duly adopted by the Board of Commissioners of the Henderson Water & Sewer Commission at a regular meeting held on Monday, 25 January 2016, at which meeting a quorum was present.

BE IT RESOLVED, that the Henderson Water and Sewer Commission by and through its Board of Commissioners under the authority granted to the Board of Commissioners under Chapter 23 Article II Division 3 Sections 23-36 through 23-45.1 of the City Code of Ordinances hereby recommends to the Board of Commissioners of the City of Henderson, Kentucky, that the City of Henderson enact and adopt revisions to portions of Article II and Article V of Chapter 23 of the City Code of Ordinances, commonly referred to as the “Sewer Use Ordinance”, incorporating changes to Depositing Material on Streets, Rights of Way, and Drainage Systems; Maintenance of Stormwater Drainage Systems and Control Devices; Water & Sewer Charges; and Provision of Water and Wastewater Service Outside the City, as well as minor semantic and grammatical changes as recommended by the staff of the Water and Sewer Commission, and herewith transmitted to the City by attachment to this resolution.

These changes will become effective upon the date of adoption by the Board of Commissioners of the City of Henderson, Kentucky.

The General Manager is hereby authorized to deliver this Resolution to the City of Henderson.
IN WITNESS WHEREOF, having come before the Board of Commissioners on Monday, 25 January 2016, and upon Motion made by Commissioner ______________, and seconded by Commissioner ______________, the Board of Commissioners voted as follows:

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<td>Commissioner, Paul Bird</td>
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<td>Commissioner, Julie Wischer</td>
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______________________________
Tom Williams, P.E.
General Manager
Henderson Water Utility
ARTICLE II. WATER AND SEWER SERVICE

DIVISION 2. SEWER USE REGULATIONS

Sec. 23-27.4 Depositing material on streets, rights of way, drainage systems; Post construction stormwater management in new development, redevelopment, and existing systems.

(a) Depositing of material in streets, rights of way, or drainage systems. It shall be a violation of this chapter for any person to do, or permit, authorize or direct another person to do, any of the following:

1. Erect, construct, deposit, or plant, any building, outbuilding, shed, fence, playground equipment, concrete, landscape berm, trees, bushes, shrubs, flowers, rocks, dirt, or any other substance or structure that covers, alters, obstructs, impairs or encroaches on the MS4 or any private stormwater system, unless such activity is authorized by the General Manager.

2. Deposit any concrete, pollutants, building materials, or yard waste on the surface of any street or alley located within public right-of-way that drains into the combined sewer system, the MS4, or any private stormwater system.

3. Cover, alter, excavate, fill, divert, obstruct, impair, or encroach on any portion of the MS4 or any private stormwater system.

3.4 Deposit or place any solid waste, debris, yard waste, pollutants, wastewater, concrete, building materials, tires, appliances, animal waste or carcasses, or any other substance, material or obstruction of any kind in an open ditch, sewer, stormwater inlet or catch basin, manhole, curb and gutter, or over, under, or across any portion of the MS4 or any private stormwater system.

(b) Construction of private storm water drainage systems. All private storm water drainage and treatment systems shall be in place, functioning, and certified by a Kentucky licensed professional engineer prior to the occupation of any property improvements by the owner. It shall be unlawful for any person to refuse to construct any part of a private storm water drainage or treatment system or component that has been required by the City of Henderson or the Henderson City – County Planning Commission on any development plan or site plan.

(c) Maintenance of private storm water drainage systems. The owner of the property on which the private storm water drainage system is located, which includes but is not limited to the conveyance system, treatment system or detention/retention basin, shall, at the written request of HWU, employ a Kentucky licensed professional engineer to certify that the private storm sewer system is being maintained at the level of service for which it was originally designed. If a determination is made by HWU that the property owner is not maintaining the private system at or above the level of service indicated in the original design, a notice of deficiency shall be issued and
enforcement initiated. It shall be unlawful for any person to refuse to maintain any part of a private storm sewer system that has been approved by the City of Henderson or the Henderson City – County Planning Commission as part of any development or site plan. The system shall be maintained at all times to the level of service for which it was designed.

(Ord. No. 06-11, 3-22-11; Ord. No. 33-12, 12-11-2012)

Sec. 23-27.5 Maintenance of Stormwater Drainage Systems and Control Devices.

(a) Where a public drainage easement for a public stormwater drainage system exists, the private property owner is responsible for non-structural maintenance of any ditch, channel, detention/retention basin, or any other stormwater conveyance, treatment or control device located on the owner’s property, including but not limited to mowing the area (including any embankment or slope), removing small debris that accumulates in the system including litter and yard waste, sodding or seeding bare areas, (including any embankment or slope), and maintenance of landscape items, such as trees and shrubs.

(b) Where a public drainage easement for a public stormwater drainage system exists, and public stormwater system components have been accepted for maintenance by the City, the City is responsible for: all structural repairs; maintaining the integrity of any embankment and the structural items in the easement, including concrete, pipe, gabions, stone, spillways, headwalls; repairing eroded areas in the easement that threaten the stability of an embankment; repairing paved ditches and inlet structures in the easement; removing excess silt that affects the functionality of the stormwater drainage system; and removing trees, brush, or large debris that obstructs any outlet pipes, spillways or drainageways or any portion of the stormwater drainage system.

(c) Where no public easement exists, the property owner is responsible for maintenance of any ditch, channel, detention/retention basin, or any other stormwater conveyance, treatment or control device located on the owner’s property, including but not limited to: mowing the area (including any embankment or slope); removing debris that accumulates in the system including litter and yard waste; sodding or seeding bare areas (including any embankment or slope); maintaining any landscaped areas such as trees and shrubs; all structural repairs; maintaining the integrity of any embankment and structural items including concrete, pipe, gabions, stone, spillways and headwalls; repairing eroded areas on the embankment that threaten the stability of the embankment; repairing paved ditches and inlet structures in the basin, removing excess silt that affects the functionality of the stormwater control device as directed by the City, and removing large debris that obstructs any drainageway.

(d) No trees shall be planted on any dam, berm or levee associated with a public stormwater drainage system.
(e) No structures or equipment including but not limited to, fences, gazebos, swimming pools or buildings shall be placed in a public drainage easement, except as allowed by permit issued by the City.

(f) No fill dirt shall be placed in a public drainage easement without prior approval by the City.

(g) The owner of any property shall ensure that no equipment, structure, material, or substances are located in the easement that may adversely affect the performance of a stormwater drainage system in controlling stormwater quantity or that adversely affect water quality.

(h) Nothing herein shall preclude the City from assuming responsibility to maintain any stormwater drainage system pursuant to contract, easement, or other legal arrangement.

(i) Maintenance and repair of detention/retention basins and other stormwater conveyance, treatment or control devices located on private property is the responsibility of the property owner who shall ensure the facilities are operating as intended. Property owners shall address requirements for continuing maintenance and repair of stormwater treatment or control devices through a note or clause on the face of a final recorded plat, or the execution of a stormwater management system maintenance agreement, recorded in the office of the county court clerk at the expense of the property owner.

(j) The owner of any property may be notified in writing by the City of any problems or maintenance or repairs that must be addressed or corrected in stormwater conveyance, treatment or control devices, or in stormwater basins, such as removing debris from a basin, repairing eroded areas on the embankment, replacing a crushed pipe, repairing or replacing a stormwater BMP, or improving embankment stability. Such notification shall include a time limit for correction of deficiencies, after which time enforcement shall be initiated. The scale of enforcement actions will be as detailed in the appropriate HWU Enforcement Response Plan.

(Ord. No. 06-11, 3-22-11; Ord. No. 33-12, 12-11-2012; Ord. No. 20-14, 6-24-14)

ARTICLE V. - RATES AND CHARGES

Sec. 23-98. - Water and sewer charges.

(a) Special rates:

(1) If the wastewater other liquid wastes being discharged into the sewers from any building or premises is determined by HWU to contain unduly high concentrations of any substances which add to the operating cost of the sewer facilities of HWU, HWU may establish special rates or charges as to such class of building or premises, or may require the owner or other interested party to specially treat such sewage, water or other liquid wastes before it is discharged into the sewers.
(2) **HWU{The city}** may establish rules and regulations regarding the use of the sewer facilities which may control the amount and characteristics of wastes permitted to be discharged therein where such quantities or characteristics may be injurious to the works or deleterious to their operation.

(b) **Application for special classification.** Whenever it is determined by **HWU{the city}** to be necessary to classify any commercial institutions or industries by reason of the unusual purpose for which water is used or the character of the {sewage, water} wastewater or other liquid wastes discharged therefrom, or whenever the foregoing schedules or charges for any reason are not applicable, then **HWU{the city}** may establish special rates or other charges, and any person, being charged the foregoing rates and being dissatisfied therewith by reason of peculiar or unusual use or occupancy of any premises and consequently alleging peculiar or unusual uses of water, may file application with **HWU{the city}** for special classification, rates or charges.

(c) Authority to revise rates. The rates or charges shall be revised from time to time as may be necessary in order that the city may comply with the covenants and undertakings securing the water and sewer revenue bonds of the city.

(d) No free sewer service. No free use of the services and facilities of the sanitary sewers shall be granted or permitted to any sewer user, {including} excepting the city itself.

(e) **Provision of Water and** Wastewater service, rates and charges outside city. There shall be monthly rates and charges for **water and/or wastewater services** rendered by {the combined and consolidated system} **HWU** to customers and users outside the corporate limits of the city. The city owes no obligation to make **water or** wastewater service available to property located outside its corporate limits, and does not offer **water or** wastewater services to such property except under the following conditions:

(1) Where such property is adjacent to or within reasonable distance of a **water or** wastewater main or line in the service area of {the city} **HWU's north-(Drury Lane) water or wastewater treatment plants**, the owner of such property may make written application to the water and sewer commission for the privilege of connecting to such **water and/or wastewater main or line**. The application shall include a properly executed and notarized form consenting to annexation and the **extension provision of water and/or wastewater service** shall be conditioned on the execution of a deed restriction for the property to be served not to oppose annexation. If, in the sole discretion of the water and sewer commission (each case to be judged on its own merits) such connection can be accommodated without exceeding the capacity of the main or line in question or causing other problems in the **distribution, collection, transmission**, or treatment systems and will be beneficial to the public health and welfare of the area, the water and sewer commission may approve the application subject to formal acceptance by the board of commissioners.
(2) Where an existing private or publicly owned wastewater system is to be taken over in whole or in part by HWU, such system can be accepted following written application to and approval by the water and sewer commission and formal acceptance by the board of commissioners.

(3) Where an existing private or publicly owned wastewater system desires to contract with HWU for wastewater services such contractual arrangements can be accepted following written application to and approval by the water and sewer commission and formal acceptance by the board of commissioners.

(Code 1968, §§ 51.09—51.12, 51.19, 51.31; Ord. No. 06-00, § 2, 1-25-00; Ord. No. 07-06, 4-11-06)
HENDERSON WATER AND SEWER COMMISSION
RESOLUTION OF THE BOARD OF COMMISSIONERS

Resolution No. 2016-02

The following Resolution was duly adopted by the Board of Commissioners of the Henderson Water & Sewer Commission at a regular meeting held on Monday, 25 January 2016, at which meeting a quorum was present.

BE IT RESOLVED, that the Henderson Water and Sewer Commission by and through its Board of Commissioners under the authority granted to the Board of Commissioners under Chapter 23 Article II Division 3 Sections 23-36 through 23-45.1 of the City Code of Ordinances, hereby recommends to the Board of Commissioners of the City of Henderson, Kentucky, that the City of Henderson enact and adopt the plan outlined below for orderly succession of the Henderson Water Utility (HWU) leadership team in the event of the absence, disability or inability of upper level employees to effectively manage and direct operations for response and recovery during an emergency or disaster, as required by KRS 39D.030 and 39D.040.

General Manager: In the event of absence, disability or inability of the General Manager during an emergency or disaster, his duties and responsibilities shall be administered by an emergency interim successor, in the following order:

1) Chief Financial Officer,
2) Director of Engineering,
3) Director of Field Operations, and
4) Director of Plant Operations.
**Chief Financial Officer:** In the event of absence, disability or inability of the Chief Financial Officer (CFO) during an emergency or disaster, his duties and responsibilities shall be administered by an emergency interim successor, in the following succession order:

1) Director of Engineering,
2) Director of Plant Operations, and
3) Purchasing Manager.

**Director of Field Operations:** In the event of absence, disability or inability of the Director of Field Operations during an emergency or disaster, his duties and responsibilities shall be administered by an emergency interim successor, in the following succession order:

1) Director of Plant Operations,
2) Utility System Superintendent,
3) Assistant Utility System Superintendent, and
4) HWU Field Crew Leaders, in order of seniority.

**Director of Plant Operations:** In the event of absence, disability or inability of the Director of Plant Operations during an emergency or disaster, his duties and responsibilities shall be administered by an emergency interim successor, in the following succession order:

1) Director of Field Operations,
2) Chief Operator, North Water Treatment Plant, and
3) Director of Engineering.

**Director of Engineering:** In the event of absence, disability or inability of the Director of Engineering during an emergency or disaster, his duties and responsibilities shall be administered by an emergency interim successor, in the following succession order:

1) Director of Field Operations,
2) Director of Plant Operations, and
3) Chief Engineer.
Emergency interim successors shall have the full power to exercise all powers of the office or position to which they succeed, and to commit HWU resources during a time of emergency or disaster if the person normally exercising the position is unavailable. If the preceding person becomes available, he or she shall resume the duties being performed by the emergency interim successor, unless he chooses to permit the emergency interim successor to remain in the position until relieved.

This plan will become effective upon the date of legal adoption by the Board of Commissioners of the City of Henderson, Kentucky.

The General Manager is hereby authorized to deliver this Resolution to the City of Henderson, and upon adoption by the City, to communicate the above plan to the Director of the Henderson Emergency Management Agency for incorporation into the Henderson Emergency Operations Plan.

IN WITNESS WHEREOF, having come before the Board of Commissioners on Monday, 25 January 2016, and upon Motion made by Commissioner ______________, and seconded by Commissioner ______________, the Board of Commissioners voted as follows:

<table>
<thead>
<tr>
<th>Commissioner, Paul Bird</th>
<th>AYE</th>
<th>NAY</th>
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<tbody>
<tr>
<td>Commissioner, George Jones</td>
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<td>Commissioner, John Henderson</td>
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<td>Commissioner, Gary Jennings</td>
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<td>Commissioner, Julie Wischer</td>
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___________________________

Tom Williams, P.E.
General Manager
Henderson Water Utility
Henderson Water Utility
Action Report #2016-03

To: Henderson Water & Sewer Commission
From: Kevin Roberts, Director of Plant Operations
Subject: TOC Analyzer and Gas Chromatograph Purchase
Project No: 22-1700-0055
Date: 25 January 2016

Background:

- To protect our drinking water from disease-causing organisms, or pathogens, we add a disinfectant (bleach). Disinfection is complicated because certain microbial pathogens, such as Cryptosporidium, are highly resistant to traditional disinfection practices. Also, disinfectants themselves can react with naturally-occurring materials in the water to form byproducts, which may pose health risks.
- A major challenge for water suppliers is how to balance this need to control and limit the health risks to the population from pathogens, while meeting requirements to limit the formation of disinfection byproducts (DBPs).
- The Microbial and Disinfection Byproducts Rules (MDBPs), are a set of interrelated regulations that address risks from microbial pathogens and disinfectants/disinfection byproducts. The Stage 1 DBP Rule requires control of total organic carbon in our finished water, and we have TOC Analyzers at each Water Treatment Plant that monitor TOC continuously. Organic carbon comes from natural sources, like decaying vegetable and animal matter, and can lead to taste and odor complaints as well as DBPs.
- The Stage 2 DBP rule focuses on limiting exposure to DBPs, specifically total trihalomethanes (THM) and five haloacetic acids (HAA5), which can form in water from the disinfectants used to control microbial pathogens. We test for DBPs at points in our system where problems are likely to occur, which is generally at the far reaches of our system, or in areas where dead-end lines or low use might lead to longer water age, a primary indicator of DBP formation. This testing is performed quarterly, with results reported to KDOW. Levels of DBP above the limits must be reported to the public.
- Currently, our DBP testing is performed by an outside lab, and results are generally available 30 days after the testing is performed, making it difficult to manage chemical use and DBP formation. We’re always chasing a moving target, so managing DBPs takes the form of adherence to broad ranges of operating parameters. As these regulations have tightened, this procedure is less than optimal.

New Developments:

- Our current TOC Analyzer equipment is nearing the end of its useful life, and needs to be replaced. We have units at both the North and South WTPs.
- There are units available to measure TTHM in real-time, but the technology is relatively new, and we are reluctant to adopt that at this point. The current units also only measure total trihalomethanes and not HAA5, so they are not a complete solution to the testing requirement.
- Acquiring a Gas Chromatograph would allow us to perform our own DBP testing in 2 hours or less, making it possible to make adjustments to treatment processes more quickly, and to test as frequently as conditions warrant.
- There may be an opportunity for us to receive assistance on the GC machine from ORSANCO, either in the form of use of a machine they provide, or they may be able to assist with purchase or the annual maintenance agreement. Until we determine the extent of that possible assistance, we will put the GC purchase off for a short time.
- The TOC Analyzer manufactured by General Electric is the only unit that meets our needs, and we determined this to be a Sole Source procurement.
Under KRS 45A.380, we may award the purchase of commodities, services, or equipment through noncompetitive negotiations from a sole or single source when justification is provided. We advertised this decision in the local paper, as required, and received no response, inquiry or objections. The sole source justification was also advertised on our website, and in social media.

The costs of these units totals $65,880, and we have included a 6% contingency, in case of unknowns:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5310 C TOC Analyzers (2)</td>
<td>$26,900</td>
<td>$53,800.00</td>
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<tr>
<td>Instrument Trade In (2)</td>
<td>2,500</td>
<td>(5,000.00)</td>
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<tr>
<td>Heavy Use Filter Kit (2)</td>
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<td>2,210.00</td>
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<tr>
<td>PM Visits (2)</td>
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<td>10,600.00</td>
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<td>First Year Gold Warranty (2)</td>
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<tr>
<td>Contingency</td>
<td></td>
<td>4,120.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$70,000.00</strong></td>
</tr>
</tbody>
</table>

Legal & Financial Considerations:
- All procurements for this equipment have and will follow the Kentucky Model Procurement Code.
- This purchase is an unbudgeted capital expense, although the FY 2015-2016 Capital Budget did identify $235,000 for unspecified “Equipment”.

Recommendations & Approvals:
- Staff recommends using $70,000 from the FY 2015-2016 Capital Budget for this project, which will be taken from the “Equipment” line in the capital budget.
- We may bring purchase/lease/annual maintenance of a Gas Chromatograph unit to the Board at a future date.
- Board approval authorizes the General Manager to initiate all work necessary to complete this acquisition, including issuance of any bids, purchase orders, engineering services, task orders, change orders, or other authorizations required.

Respectfully Submitted:

Kevin Roberts
Director of Plant Operations

Approved for Submittal:

Tom Williams, P.E
General Manager


PASSED: ___________  FAILED: ___________  TABLED: ___________
EXECUTIVE SESSION

- To discuss matter regarding proposed or pending litigation, pursuant to KRS 61.810(c)