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COMMITMENT & INTEGRITY DRIVE RESULTS

# Monthly Operating REPORT

Monmouth, Illinois

Department of  
Public Works

September 2016



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## EXECUTIVE SUMMARY

The September Public Works monthly report provides an overview of the month's activities and statistical data including: wastewater treatment effluent quality, water production, billing and collection statistics for municipal services, maintenance activities, maintenance and repair costs vs. monthly thresholds, water treatment chemical costs, overall project cost and performance to annual budget.

Both the Motor Fuel Tax resurfacing project and the North 6<sup>th</sup> Street FAU new construction project were completed on schedule in September. Well 10 drilling commenced mid-month and is anticipated to be completed in late November. Coordination for the installation of the softener and raw water main installation and connection to the water plant is in the que with Tonka Filter and Woodard Curran engineering. The new SCADA computers were installed and programmed at the wastewater treatment plant.

Feel free to stop by the office or give me a call, 309-734-4026.

Regards, Andy

## 1. WASTEWATER TREATMENT

The Consolidated WWTP treated and discharged 116 million gallons of wastewater in the month of September. There were 0 combined sewer overflow events in September. The weather station at the plant reported 1.6” of rainfall during the month. The Consolidated Plant continues to produce excellent effluent quality. The table below outlines the water quality vs. NPDES permit limits.

**Table 1-1: Water Quality vs. NPDES Permit Limits**

	Monthly Average	Permit Limit
Flow (MGD)	3.89	4.62
Ammonia N mg/l	0.1	1.5
CBOD5 mg/l	1	10
Chlorides mg/l	361	500
Suspended Solids mg/l	5	12
Total Phosphorus	1.0	1.0

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## 2. WATER TREATMENT

The water treatment plants produced 76 million gallons of finished water in September. Finished water quality met all standards per the Clean Water Act for drinking water. The table below outlines the chemical usage for ion exchange softening for the month.

**Table 2-1: Monthly Chemical Usage for Ion Exchange Softening**

	Daily Average	Monthly Total
Treated Water to System	2.53 MG	76 MG
Poly Phosphate Usage-lbs.	73	2,185 lbs
Salt Usage — tons	4.9	146 tons
Chlorine Usage - lbs.	102	3,045 lbs

### 3. BILLING AND COLLECTION

**Table 3-1: Billing/Collection**

The table below outlines the revenue collected for the month of September from the Municipal Services billings.

DATE	PAYMENTS	PAYMENTS SEPTEMBER 2016						YARD WASTE	FARM BONDS	FARM	
		WATER	SEWER	LANDFILL	RECYCLE	GARBAGE	SURCHARGE			PENALTY	
09/01/16	\$11,962.25	\$5,428.92	\$3,271.96	\$983.25	\$645.24	\$1,536.37	\$96.20	\$0.00	\$0.00	\$0.31	
09/02/16	\$45,399.87	\$22,089.50	\$17,808.25	\$1,704.31	\$1,113.17	\$2,306.31	\$143.65	\$0.00	\$0.00	\$234.68	
09/06/16	\$75,921.77	\$36,619.13	\$23,753.63	\$4,549.80	\$3,012.06	\$7,514.65	\$469.30	\$0.00	\$0.00	\$3.20	
09/07/16	\$148,504.88	\$66,249.74	\$61,831.65	\$787.55	\$518.31	\$1,385.76	\$86.45	\$15,886.40	\$1,755.99	\$3.03	
09/08/16	\$47,654.58	\$22,275.72	\$19,409.79	\$1,788.20	\$1,167.15	\$2,828.40	\$177.60	\$0.00	\$0.00	\$7.72	
09/09/16	\$88,594.00	\$42,178.03	\$30,211.38	\$4,844.93	\$3,149.47	\$7,712.61	\$482.95	\$0.00	\$0.00	\$14.63	
09/12/16	\$8,068.55	\$3,368.78	\$2,480.29	\$562.15	\$364.44	\$952.64	\$60.45	\$0.00	\$0.00	\$279.80	
09/13/16	\$6,430.21	\$2,718.35	\$1,883.94	\$472.24	\$309.86	\$755.41	\$47.45	\$0.00	\$0.00	\$242.96	
09/14/16	\$4,731.08	\$1,896.89	\$1,437.56	\$355.24	\$230.30	\$604.83	\$39.00	\$0.00	\$0.00	\$167.26	
09/15/16	\$13,595.91	\$6,195.90	\$4,699.91	\$642.06	\$415.77	\$1,049.77	\$64.35	\$0.00	\$0.00	\$528.15	
09/16/16	\$10,166.63	\$4,389.39	\$3,089.61	\$701.30	\$454.69	\$1,099.75	\$68.90	\$0.00	\$0.00	\$362.99	
09/19/16	\$9,489.76	\$4,065.90	\$2,993.64	\$615.39	\$398.96	\$1,003.61	\$63.05	\$0.00	\$0.00	\$349.21	
09/20/16	\$4,880.91	\$2,003.93	\$1,474.58	\$352.42	\$228.47	\$610.28	\$38.35	\$0.00	\$0.00	\$172.88	
09/27/16	\$10,599.96	\$4,805.23	\$4,574.64	\$231.75	\$150.20	\$401.26	\$27.95	\$0.00	\$0.00	\$408.93	
09/28/16	\$3,519.26	\$1,376.46	\$1,097.85	\$312.22	\$202.43	\$499.10	\$31.20	\$0.00	\$0.00	\$0.00	
09/29/16	\$7,008.28	\$2,857.19	\$2,090.39	\$596.20	\$394.32	\$1,001.28	\$62.46	\$0.00	\$0.00	\$6.44	
09/30/16	\$9,574.26	\$3,933.21	\$2,637.86	\$885.68	\$574.23	\$1,450.58	\$90.35	\$0.00	\$0.00	\$2.35	
	\$0.00										
	\$0.00										
<b>TOTAL</b>	<b>\$506,102.16</b>	<b>\$232,452.27</b>	<b>\$184,746.93</b>	<b>\$20,384.69</b>	<b>\$13,329.07</b>	<b>\$32,712.61</b>	<b>\$2,049.66</b>	<b>\$15,886.40</b>	<b>\$1,755.99</b>	<b>\$2,784.54</b>	

#### 4. ESTIMATED ANNUAL COST

Table 4-1: Estimated Annual Budget – Year 4

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget
Labor (D.L. + FB)	\$124,386	\$134,514	\$621,930	\$582,902	\$1,492,633
Utilities	\$2,500	\$1,899	\$12,500	\$9,556	\$30,000
Chemicals Costs	\$22,667	\$34,119	\$113,333	\$115,399	\$272,000
Maintenance and Repair Costs	\$27,833	\$52,508	\$139,167	\$155,558	\$334,000
Sludge Disposal Costs	\$0	\$0	\$0	\$0	\$0
Lab Supplies & Equipment	\$3,375	\$7,520	\$16,875	\$16,826	\$40,500
Office Supplies	\$1,500	\$3,082	\$7,500	\$9,550	\$18,000
Miscellaneous Expenses	\$5,017	\$5,458	\$25,083	\$28,412	\$60,200
Other Operating Costs	\$12,494	\$11,387	\$62,470	\$62,217	\$149,927
Overhead (G&A of D.L.)	\$28,087	\$30,374	\$140,436	\$131,623	\$337,046
<b>Subtotal of Costs - Contract Year 4</b>	<b>\$227,859</b>	<b>\$280,861</b>	<b>\$1,139,294</b>	<b>\$1,112,043</b>	<b>\$2,734,306</b>
Fixed Fee for Contract Year 4	\$16,406	\$20,222	\$82,029	\$80,067	\$196,870

## 5. MAINTENANCE/REPAIR COST DETAIL

### 5.1 MAINTENANCE AND REPAIR COSTS

Maintenance and Repair costs as compared to the monthly threshold

**Table 5-1: Maintenance and Repair Costs**

	Month	YTD
Grounds	3,798	8,645
Electrical	4,245	16,615
Street	14,819	49,106
Water Distribution	4,354	23,619
Sewer Collection	0	2,185
Instrumentation	928	928
Mechanical	16,690	32,061
Vehicle	6,682	15,820
Tools	48	165
Janitorial/Misc.	921	3,248
HVAC Maintenance	0	2,688
Maintenance Agreements	0	68
Landscaping	23	388
Snow Removal	0	0
<b>Total Expenditures</b>	<b>52,508</b>	<b>155,557</b>
<b>Threshold</b>	<b>27,833</b>	<b>139,165</b>
<b>Over (Under)</b>	<b>24,675</b>	<b>16,392</b>

#### A SUMMARY OF MAINTENANCE & REPAIR ACTIVITIES:

##### Water/Street Facilities

Maintenance staff completed 72 preventative and 18 corrective work orders for the water plants, distribution system, and fleet in September. 108 requests for service were responded to by service personnel. 286 requests for City utility locates from the J.U.L.I.E. call center were completed.

Water distribution system and sewer collection system items:

- Replaced 9 water meters
- Repaired water main 400 block North 6th
- Repaired water main 600 block East Clinton
- Repaired water service 100 North 9th
- Replaced water service 304 Sunnyside Park Drive
- Rebuilt/repaired storm intakes on North 6<sup>th</sup> Street near Shopko entrance
- Repaired intake/installed beehive cover at the corner of North 5<sup>th</sup> & East Archer



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## Wastewater Facilities

Maintenance staff performed 88 preventatives and 1 corrective work orders at the Consolidated Plant, and, 34 preventatives work orders and 1 corrective work order at the Pre-Treatment plant.

- Installed new VFD on #4 oxidation ditch rotor
- Installed new gas blower on flare system

## Street/Grounds/Right of Way/Fleet

- Various tree removal
- Street patching
- Scheduled vehicle service work (lube, oil, filters)
- Replaced turbo charger on T17
- Replaced pins on outriggers on John Deere backhoe
- Replaced radiator and transmission line and blower on T18
- Replaced blower on T19
- Replaced muffler on T16
- Backfilled, tilled, and seeded graves at the Cemetery
- City grounds keeping including 2 cemeteries, all City owned lots, private lots as directed by Code Enforcement Officer, City right of ways, Water Plants, Wastewater Treatment Plants, City garage, Fountain maintenance, and downtown beautification
- Applied herbicide for weed control on City properties and right of way (various areas)

## 5.2 CHEMICAL COST DETAIL

Process chemical costs for water treatment

**Table 5-2: Process Chemical Costs**

	Month	YTD
Chlorine	2,628	10,425
Salt	19,727	86,494
Polyphosphate	11,764	18,481
<b>Total</b>	<b>34,119</b>	<b>115,399</b>
<b>Threshold</b>	<b>22,667</b>	<b>113,335</b>
<b>Over (Under)</b>	<b>11,452</b>	<b>2,064</b>

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## 6. HEALTH & SAFETY

Reviewed/updated emergency response plan

Reviewed/updated blood borne pathogen written program

Reviewed/updated respiratory protection written program

Reviewed/updated hearing protection written program

Reviewed/updated confined space entry written program

Reviewed/updated PPE written program

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## 7. CAPITAL PROJECTS

Well 10 drilling commenced in mid-September

Motor Fuel Tax project completed in September

FAU North 6<sup>th</sup> Street construction project completed in September

IEPA plan review for CSO Phase 1

IEPA plan review for water treatment additional softener