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COMMITMENT & INTEGRITY DRIVE RESULTS

# Monthly Operating REPORT

Monmouth, Illinois

Department of  
Public Works

August 2017



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## EXECUTIVE SUMMARY

The August 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.

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 87 million gallons of wastewater in the month of August. There were no combined sewer overflow events in August. The weather station at the plant reported 2.1” 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)	2.8	4.62
Ammonia N mg/l	0.1	1.5
CBOD5 mg/l	1	10
Chlorides mg/l	406	500
Suspended Solids mg/l	4	12
Total Phosphorus	0.8	1.0

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## 2. WATER TREATMENT

The water treatment plants produced 85 million gallons of finished water in August. 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	2.74 MG	80 MG
Poly Phosphate Usage-lbs.	85	2,649 lbs
Salt Usage — tons	5.1	160 tons
Chlorine Usage - lbs.	107	3,309 lbs

### 3. BILLING AND COLLECTION

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

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

DATE	PAYMENTS	PAYMENTS AUGUST 2017							FARM SURCHARGE	PENALTY
		WATER	SEWER	LANDFILL	RECYCLE	GARBAGE	YARD WASTE	FARM BONDS		
08/01/17	\$11,177.79	\$5,058.72	\$3,091.86	\$890.97	\$603.48	\$1,417.24	\$110.16	\$0.00	\$0.00	\$5.36
08/02/17	\$23,051.33	\$10,668.09	\$8,400.20	\$1,181.73	\$801.80	\$1,856.14	\$143.37	\$0.00	\$0.00	\$0.00
08/03/17	\$14,311.70	\$6,551.92	\$4,201.37	\$1,018.78	\$680.86	\$1,722.59	\$133.65	\$0.00	\$0.00	\$2.53
08/04/17	\$137,873.06	\$67,859.07	\$66,871.59	\$1,492.17	\$621.72	\$912.23	\$114.21	\$0.00	\$0.00	\$2.07
08/07/17	\$82,578.00	\$40,021.62	\$28,036.57	\$4,249.44	\$2,895.93	\$6,846.08	\$527.31	\$0.00	\$0.00	\$1.05
08/08/17	\$51,234.03	\$17,289.85	\$13,342.97	\$1,413.57	\$948.74	\$2,180.66	\$170.91	\$15,886.40	\$0.00	\$0.93
08/09/17	\$26,798.45	\$13,483.82	\$8,219.02	\$1,419.96	\$969.86	\$2,509.77	\$196.02	\$0.00	\$0.00	\$0.00
08/10/17	\$74,567.35	\$36,361.78	\$25,763.54	\$3,750.71	\$2,526.02	\$5,681.97	\$439.83	\$0.00	\$0.00	\$43.50
08/11/17	\$6,464.57	\$2,745.51	\$1,979.17	\$424.98	\$284.01	\$741.91	\$57.51	\$0.00	\$0.00	\$231.48
08/14/17	\$15,036.42	\$7,144.53	\$4,148.06	\$949.00	\$634.27	\$1,481.82	\$115.02	\$0.00	\$0.00	\$563.72
08/15/17	\$9,266.60	\$3,977.58	\$2,774.27	\$614.71	\$410.81	\$1,068.89	\$82.62	\$0.00	\$0.00	\$337.72
08/16/17	\$7,641.89	\$3,397.73	\$2,484.53	\$435.93	\$291.38	\$698.00	\$51.03	\$0.00	\$0.00	\$283.29
08/17/17	\$4,241.37	\$1,951.32	\$1,295.01	\$247.55	\$165.44	\$397.47	\$30.78	\$0.00	\$0.00	\$153.80
08/18/17	\$7,691.23	\$3,270.44	\$2,358.60	\$519.73	\$347.35	\$857.38	\$65.61	\$0.00	\$0.00	\$272.12
08/21/17	\$9,984.71	\$4,504.19	\$3,157.55	\$570.79	\$385.46	\$960.25	\$74.52	\$0.00	\$0.00	\$331.95
08/28/17	\$6,693.62	\$3,082.85	\$1,981.12	\$447.76	\$299.23	\$754.54	\$61.56	\$0.00	\$0.00	\$66.56
08/29/17	\$5,612.06	\$2,282.31	\$1,467.38	\$534.17	\$361.01	\$893.80	\$69.66	\$0.00	\$0.00	\$3.73
08/30/17	\$7,410.89	\$2,964.01	\$2,238.33	\$657.46	\$439.40	\$1,029.20	\$81.00	\$0.00	\$0.00	\$1.49
08/31/17	\$12,042.69	\$7,152.68	\$2,594.98	\$669.62	\$447.53	\$1,092.83	\$85.05	\$0.00	\$0.00	\$0.00
	\$0.00									
	\$0.00									
	\$0.00									
	\$0.00									
<b>TOTAL</b>	<b>\$513,677.76</b>	<b>\$239,768.02</b>	<b>\$184,406.12</b>	<b>\$21,489.03</b>	<b>\$14,114.30</b>	<b>\$33,102.77</b>	<b>\$2,609.82</b>	<b>\$15,886.40</b>	<b>\$0.00</b>	<b>\$2,301.30</b>

#### 4. ESTIMATED ANNUAL COST

Table 4-1: Estimated Annual Budget – Year 5

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget
Labor (D.L. + FB)	\$125,165	\$114,454	\$500,659	\$473,666	\$1,501,976
Utilities	\$2,542	\$2,123	\$10,167	\$8,665	\$30,500
Chemicals Costs	\$23,044	\$14,341	\$92,178	\$79,907	\$276,533
Maintenance and Repair Costs	\$28,297	\$29,234	\$113,189	\$140,661	\$339,567
Sludge Disposal Costs	\$2,069	\$0	\$8,277	\$0	\$24,830
Lab Supplies & Equipment	\$3,431	\$4,522	\$13,725	\$10,419	\$41,175
Office Supplies	\$1,525	\$1,216	\$6,100	\$7,578	\$18,300
Miscellaneous Expenses	\$12,201	\$5,683	\$48,803	\$25,681	\$146,408
Other Operating Costs	\$5,912	\$17,876	\$23,649	\$79,492	\$70,947
Overhead (G&A of D.L.)	\$28,263	\$25,844	\$113,052	\$106,957	\$339,156
<b>Subtotal of Costs - Contract Year 5</b>	<b>\$232,449</b>	<b>\$215,293</b>	<b>\$929,797</b>	<b>\$933,026</b>	<b>\$2,789,392</b>
Fixed Fee for Contract Year 5	\$16,736	\$15,501	\$66,945	\$67,178	\$200,836

## 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	1,975	8,897
Electrical	1,247	4,380
Street	10,649	38,854
Water Distribution	4,605	29,692
Sewer Collection	1,880	11,748
Instrumentation	0	0
Mechanical	6,335	29,626
Vehicle	1,790	10,947
Tools	0	939
Janitorial/Misc.	630	2,867
HVAC Maintenance	79	1,408
Maintenance Agreements	0	140
Landscaping	0	204
Snow Removal	0	0
Misc. Maintenance	0	916
<b>Total Expenditures</b>	<b>29,234</b>	<b>140,661</b>
<b>Threshold</b>	<b>28,297</b>	<b>113,188</b>
<b>Over (Under)</b>	<b>\$937</b>	<b>\$27,473</b>

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

##### Water/Street Facilities

Maintenance staff completed 46 preventatives and 18 corrective work orders for the water plants, distribution system, and fleet in August. 115 requests for service were responded to by service personnel. 282 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 7 water meters
- Repaired water main 500 block East Clinton
- Repaired water main 700 block South 2nd
- Repaired curb stop 615 East 4th
- Repaired curb stop 1118 East 5th
- Repaired curb stop 908 Sunset Road



- Cleaned sewer 400 block North E
- Cleaned sewer 100 block North 6th

### Wastewater Facilities

Maintenance staff performed 78 preventatives and 4 corrective work orders at the Consolidated Plant, and, 37 preventatives work orders and 2 corrective work order at the Pre-Treatment plant.

- Installed new HOMA pump in Parkway Manor lift station
- Installed new float bracket on East 2<sup>nd</sup> Avenue lift station
- Installed new pump in Industrial Park lift station
- Installed new holding brackets on equipment trailer
- Installed new seal on Sodium Aluminate chemical feed pump at GEMS unit
- Installed and aligned rebuilt electric motor on blower #5 at pre-treatment plant from lightning strike

### Street/Grounds/Right of Way/Fleet

- Various tree removal and trimming
- Scheduled vehicle service work (lube, oil, filters)
- Street sweeping
- Patching
- Replaced fuse holder T17
- Replaced brake pads T4
- Replaced transmission cooler hose T19
- Replaced tire tubes on batwing mower

## 5.2 CHEMICAL COST DETAIL

Process chemical costs for water treatment

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

	Month	YTD
Chlorine	2,527	9,167
Salt	11,814	62,465
Polyphosphate	0	16,944
<b>Total</b>	<b>14,341</b>	<b>79,908</b>
<b>Threshold</b>	<b>23,044</b>	<b>92,176</b>
<b>Over (Under)</b>	<b>\$(8,703)</b>	<b>\$(12,268)</b>

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## 6. HEALTH & SAFETY

Staff reviewed the annual, Cleaning up small chemical spills, from the PureSafe program. PureSafety is an interactive tutorial based safety program used by Woodard Curran for monthly safety topics.

There were no safety incidents in August and the Department has had 1 incident year to date involving a minor hand injury.

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## 7. CAPITAL PROJECTS

Well 10 – startup on September 26<sup>th</sup>, all components passed disinfection, awaiting operating permit from IEPA to run the new system

CSO Phase 1 – poured base slab, this slab will hold the actual screw pumps, forming and pouring walls for the structure

North WWTP Design – Clarifier project has been advertised for bid

South Sunny Lane Road/Drainage – project completed, road opened on September 14<sup>th</sup>.













