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COMMITMENT & INTEGRITY DRIVE RESULTS

# Monthly Operating REPORT

Monmouth, Illinois

Department of  
Public Works

July 2017



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## EXECUTIVE SUMMARY

The July 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 106 million gallons of wastewater in the month of July. There were 8 combined sewer overflow events in July. The weather station at the plant reported 5.2” 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)	3.4	4.62
Ammonia N mg/l	0.1	1.5
CBOD5 mg/l	1	10
Chlorides mg/l	345	500
Suspended Solids mg/l	4	12
Total Phosphorus	1.0	1.0

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## 2. WATER TREATMENT

The water treatment plants produced 80 million gallons of finished water in July. 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	2.59 MG	80 MG
Poly Phosphate Usage-lbs.	85	2,642 lbs
Salt Usage — tons	4.8	151 tons
Chlorine Usage - lbs.	101	3,135 lbs

### 3. BILLING AND COLLECTION

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

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

DATE	PAYMENTS	PAYMENTS JULY 2017						YARD WASTE	FARM BONDS	FARM SURCHARGE	PENALTY
		WATER	SEWER	LANDFILL	RECYCLE	GARBAGE					
07/03/17	\$31,475.58	\$14,571.28	\$9,669.90	\$2,187.28	\$1,473.77	\$3,297.90	\$254.34	\$0.00	\$0.00	\$21.11	
07/05/17	\$63,381.25	\$29,675.77	\$21,442.80	\$3,582.57	\$2,432.09	\$5,790.64	\$450.36	\$0.00	\$0.00	\$7.02	
07/06/17	\$11,865.10	\$5,126.59	\$3,492.68	\$967.17	\$650.42	\$1,510.79	\$117.45	\$0.00	\$0.00	\$0.00	
07/07/17	\$72,162.12	\$27,136.10	\$21,220.01	\$2,371.80	\$1,605.23	\$3,656.91	\$283.34	\$15,886.40	\$0.00	\$2.33	
07/10/17	\$85,696.72	\$42,419.98	\$27,987.47	\$4,458.71	\$3,017.04	\$7,240.58	\$567.00	\$0.00	\$0.00	\$5.94	
07/11/17	\$133,371.25	\$66,632.56	\$65,253.53	\$376.84	\$251.87	\$610.52	\$47.79	\$0.00	\$0.00	\$198.14	
07/12/17	\$6,398.58	\$2,631.58	\$1,769.33	\$525.55	\$351.25	\$834.54	\$65.61	\$0.00	\$0.00	\$220.72	
07/13/17	\$6,226.24	\$2,583.37	\$1,864.63	\$451.80	\$301.92	\$741.77	\$59.94	\$0.00	\$0.00	\$222.81	
07/14/17	\$11,099.84	\$4,611.30	\$3,467.33	\$748.03	\$499.92	\$1,288.38	\$100.44	\$0.00	\$0.00	\$384.44	
07/17/17	\$17,377.25	\$7,235.10	\$5,369.94	\$929.55	\$629.20	\$2,409.22	\$186.30	\$0.00	\$0.00	\$617.94	
07/18/17	\$7,543.74	\$3,378.78	\$2,479.26	\$521.83	\$348.69	\$480.64	\$38.88	\$0.00	\$0.00	\$295.66	
07/19/17	\$5,369.22	\$2,335.66	\$1,641.03	\$350.58	\$238.31	\$569.02	\$42.93	\$0.00	\$0.00	\$191.69	
07/20/17	\$8,408.16	\$3,676.63	\$2,659.73	\$507.14	\$338.95	\$849.94	\$67.23	\$0.00	\$0.00	\$308.54	
07/26/17	\$2,127.07	\$877.08	\$555.12	\$200.46	\$133.96	\$305.54	\$25.92	\$0.00	\$0.00	\$28.99	
07/27/17	\$4,367.58	\$1,892.17	\$1,318.84	\$323.86	\$220.47	\$560.83	\$42.93	\$0.00	\$0.00	\$8.48	
07/28/17	\$8,569.35	\$3,698.76	\$2,485.73	\$688.42	\$464.11	\$1,140.18	\$89.10	\$0.00	\$0.00	\$3.05	
07/31/17	\$16,866.40	\$8,162.92	\$4,666.24	\$1,191.33	\$804.22	\$1,889.27	\$147.42	\$0.00	\$0.00	\$5.00	
	\$0.00										
	\$0.00										
	\$0.00										
	\$0.00										
<b>TOTAL</b>	<b>\$492,305.45</b>	<b>\$226,645.63</b>	<b>\$177,343.57</b>	<b>\$20,382.92</b>	<b>\$13,761.42</b>	<b>\$33,176.67</b>	<b>\$2,586.98</b>	<b>\$15,886.40</b>	<b>\$0.00</b>	<b>\$2,521.86</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	\$108,247	\$375,494	\$359,213	\$1,501,976
Utilities	\$2,542	\$2,104	\$7,625	\$6,542	\$30,500
Chemicals Costs	\$23,044	\$25,794	\$69,133	\$65,566	\$276,533
Maintenance and Repair Costs	\$28,297	\$27,227	\$84,892	\$111,427	\$339,567
Sludge Disposal Costs	\$2,069	\$0	\$6,208	\$0	\$24,830
Lab Supplies & Equipment	\$3,431	\$2,789	\$10,294	\$5,897	\$41,175
Office Supplies	\$1,525	\$4,285	\$4,575	\$6,362	\$18,300
Miscellaneous Expenses	\$12,201	\$5,103	\$36,602	\$19,998	\$146,408
Other Operating Costs	\$5,912	\$17,914	\$17,737	\$61,616	\$70,947
Overhead (G&A of D.L.)	\$28,263	\$24,443	\$84,789	\$81,113	\$339,156
<b>Subtotal of Costs - Contract Year 5</b>	<b>\$232,449</b>	<b>\$217,906</b>	<b>\$697,348</b>	<b>\$717,733</b>	<b>\$2,789,392</b>
Fixed Fee for Contract Year 5	\$16,736	\$15,689	\$50,209	\$51,677	\$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	4,479	6,922
Electrical	167	3,132
Street	8,562	28,205
Water Distribution	6,195	25,087
Sewer Collection	390	9,868
Instrumentation	0	0
Mechanical	5,347	23,291
Vehicle	3,050	9,157
Tools	305	939
Janitorial/Misc.	579	2,237
HVAC Maintenance	336	1,329
Maintenance Agreements	45	140
Landscaping	16	204
Snow Removal	0	0
Misc. Maintenance	25	916
<b>Total Expenditures</b>	<b>27,227</b>	<b>111,427</b>
<b>Threshold</b>	<b>28,297</b>	<b>84,891</b>
<b>Over (Under)</b>	<b>\$(1,070)</b>	<b>\$26,536</b>

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

##### Water/Street Facilities

Maintenance staff completed 77 preventatives and 24 corrective work orders for the water plants, distribution system, and fleet in July. 107 requests for service were responded to by service personnel. 229 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 13 water meters
- Repaired water main 1100 block South 2nd
- Repaired water main 700 block West 6<sup>th</sup> Avenue and replaced 40' of pipe
- Repaired water main 800 block East Euclid
- Repaired water main 1100 South 1st
- Repaired fire hydrant South 2<sup>nd</sup> /East 1st



- 
- Repaired fire hydrant South 2<sup>nd</sup>/East 2nd

### Wastewater Facilities

Maintenance staff performed 85 preventatives and 1 corrective work orders at the Consolidated Plant, and, 41 preventatives work orders and 3 corrective work order at the Pre-Treatment plant.

- Replaced chemical feed pump (Pre-Treatment Plant)
- Installed stairs to GEMS unit platform for employee safety (Pre-Treatment Plant)
- Installed new breaker on Blower #2 (Pre-Treatment Plant)
- Installed new pump around adapter at Industrial Park Lift Station

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

- Various tree removal and trimming
- Scheduled vehicle service work (lube, oil, filters)
- Street sweeping
- Patching
- Repaired power steering pump and brake lines on T9
- Tune up kit on T5 including plugs & distributor
- Replaced battery and alternator T18
- Replaced rear tire on T15

## 5.2 CHEMICAL COST DETAIL

Process chemical costs for water treatment

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

	Month	YTD
Chlorine	2,452	6,640
Salt	15,067	50,651
Polyphosphate	8,276	8,276
Total	25,794	65,567
Threshold	23,044	69,132
<b>Over (Under)</b>	<b>\$2,750</b>	<b>\$(3,565)</b>

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## 6. HEALTH & SAFETY

Staff reviewed the annual, Dealing with Heat Stress, avoiding/recognizing the symptoms, 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 July and the Department has had 1 incident year to date involving a minor hand injury.

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## 7. CAPITAL PROJECTS

Well 10 – well pump and column pipe installed, working on electrical terminations at the well house and softener installation, softener and piping disinfection is underway, coordinating startup with all vendors for mid-September.

CSO Phase 1 – mud slab poured, re-bar set for screw pump structures, piping demolition and installation to occur in September.

North WWTP Design – Clarifier design completed and ready to go to bid pending financing.

South Sunnyside Road/Drainage – Storm sewer installed, pavement removed, new rock base installed, concrete surface installation is near completion.







