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COMMITMENT & INTEGRITY DRIVE RESULTS

Monthly Operating REPORT

Monmouth, Illinois

Department of
Public Works

August 2016



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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 139 million gallons of wastewater in the month of August. There were 9 combined sewer overflow events in August. The weather station at the plant reported 6.0” 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)	4.48	4.62
Ammonia N mg/l	0.1	1.5
CBOD5 mg/l	1	10
Chlorides mg/l	283	500
Suspended Solids mg/l	3	12
Total Phosphorus	0.8	1.0

2. WATER TREATMENT

The water treatment plants produced 83 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	2.68 MG	83 MG
Poly Phosphate Usage-lbs.	80	2,468 lbs.
Salt Usage — tons	5.2	160 tons
Chlorine Usage - lbs.	105	3,243 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 2016						FARM BONDS	FARM SURCHARGE	PENALTY
		WATER	SEWER	LANDFILL	RECYCLE	GARBAGE	YARD WASTE			
08/01/16	\$27,399.05	\$12,563.43	\$8,522.90	\$1,988.71	\$1,308.81	\$2,830.86	\$177.45	\$0.00	\$0.00	\$6.89
08/02/16	\$10,016.96	\$4,265.55	\$2,875.83	\$837.88	\$550.99	\$1,398.96	\$87.75	\$0.00	\$0.00	\$0.00
08/03/16	\$20,607.01	\$9,125.94	\$6,339.15	\$1,586.55	\$1,032.50	\$2,373.37	\$149.50	\$0.00	\$0.00	\$0.00
08/04/16	\$16,504.14	\$9,024.37	\$4,467.18	\$905.69	\$594.87	\$1,422.98	\$89.05	\$0.00	\$0.00	\$0.00
08/05/16	\$48,350.74	\$23,149.44	\$15,500.87	\$2,862.71	\$1,891.08	\$4,655.44	\$291.20	\$0.00	\$0.00	\$0.00
08/08/16	\$49,254.08	\$27,348.14	\$12,940.62	\$2,582.38	\$1,685.93	\$4,383.70	\$273.65	\$0.00	\$0.00	\$39.66
08/09/16	\$67,803.84	\$24,663.24	\$22,913.23	\$1,301.76	\$851.75	\$2,056.37	\$128.76	\$15,886.40	\$0.00	\$2.33
08/10/16	\$61,887.74	\$29,968.90	\$20,075.26	\$3,471.16	\$2,254.13	\$5,752.89	\$359.45	\$0.00	\$0.00	\$5.95
08/11/16	\$9,925.57	\$4,506.68	\$3,768.06	\$374.29	\$242.20	\$577.14	\$35.75	\$0.00	\$0.00	\$421.45
08/12/16	\$9,988.40	\$4,494.76	\$2,829.65	\$662.29	\$436.92	\$1,130.41	\$69.55	\$0.00	\$0.00	\$364.82
08/15/16	\$16,173.62	\$7,156.86	\$4,954.31	\$1,032.73	\$669.47	\$1,643.95	\$107.60	\$0.00	\$0.00	\$608.70
08/16/16	\$7,091.10	\$3,169.74	\$2,069.85	\$461.55	\$299.20	\$778.43	\$48.75	\$0.00	\$0.00	\$263.58
08/17/16	\$4,832.74	\$2,052.40	\$1,466.52	\$342.19	\$221.86	\$540.62	\$33.80	\$0.00	\$0.00	\$175.35
08/18/16	\$3,485.51	\$1,578.71	\$1,033.37	\$217.65	\$141.08	\$366.53	\$22.75	\$0.00	\$0.00	\$125.42
08/19/16	\$6,648.47	\$3,492.35	\$1,660.05	\$366.55	\$241.56	\$608.27	\$37.70	\$0.00	\$0.00	\$241.99
08/22/16	\$4,176.42	\$1,753.25	\$1,330.43	\$281.06	\$182.21	\$465.84	\$28.60	\$0.00	\$0.00	\$135.03
08/23/16	\$113,068.53	\$52,438.59	\$59,304.08	\$12.00	\$7.78	\$20.78	\$1.30	\$0.00	\$1,280.50	\$3.50
08/26/16	\$5,686.31	\$3,178.53	\$1,779.59	\$161.39	\$104.68	\$258.16	\$16.25	\$0.00	\$0.00	\$187.71
08/29/16	\$9,961.93	\$4,123.38	\$2,835.09	\$867.36	\$574.00	\$1,445.65	\$90.41	\$0.00	\$0.00	\$26.04
08/30/16	\$8,872.30	\$3,778.83	\$2,602.27	\$747.01	\$492.09	\$1,179.28	\$72.80	\$0.00	\$0.00	\$0.02
08/31/16	\$8,687.33	\$3,593.48	\$2,529.19	\$767.13	\$497.37	\$1,224.53	\$74.91	\$0.00	\$0.00	\$0.72
	\$0.00									
	\$0.00									
TOTAL	\$510,421.79	\$235,426.57	\$181,797.50	\$21,830.04	\$14,280.48	\$35,114.16	\$2,196.98	\$15,886.40	\$1,280.50	\$2,609.16

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	\$106,280	\$497,544	\$448,389	\$1,492,633
Utilities	\$2,500	\$1,553	\$10,000	\$7,657	\$30,000
Chemicals Costs	\$22,667	\$22,082	\$90,667	\$81,280	\$272,000
Maintenance and Repair Costs	\$27,833	\$27,795	\$111,333	\$103,050	\$334,000
Sludge Disposal Costs	\$0	\$0	\$0	\$0	\$0
Lab Supplies & Equipment	\$3,375	\$1,309	\$13,500	\$9,306	\$40,500
Office Supplies	\$1,500	\$1,443	\$6,000	\$6,468	\$18,000
Miscellaneous Expenses	\$5,017	\$7,251	\$20,067	\$22,954	\$60,200
Other Operating Costs	\$12,494	\$11,465	\$49,976	\$50,830	\$149,927
Overhead (G&A of D.L.)	\$28,087	\$23,999	\$112,349	\$101,249	\$337,046
Subtotal of Costs - Contract Year 4	\$227,859	\$203,177	\$911,435	\$831,183	\$2,734,306
Fixed Fee for Contract Year 4	\$16,406	\$14,629	\$65,623	\$59,845	\$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	639	4,847
Electrical	5,747	12,370
Street	2,120	34,287
Water Distribution	7,300	19,266
Sewer Collection	580	2,185
Instrumentation	0	0
Mechanical	5,551	15,371
Vehicle	5,195	9,137
Tools	58	117
Janitorial/Misc.	544	2,327
HVAC Maintenance	0	2,688
Maintenance Agreements	0	68
Snow Removal	0	0
Total Expenditures	27,795	103,049
Threshold	\$27,833	\$111,332
Over (Under)	\$(38)	\$(8,283)

A SUMMARY OF MAINTENANCE & REPAIR ACTIVITIES:

Water/Street Facilities

Maintenance staff completed 80 preventative and 24 corrective work orders for the water plants, distribution system, and fleet in August. 114 requests for service were responded to by service personnel. 270 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 10 water meters
- Repaired water main 1100 block South 3rd
- Repaired water main 500 block West 10th
- Repaired water main 1200 block North Main
- Replaced overload on Chlorine booster pump South Water Plant
- Installed new starter transformer on Well 4 pump
- Cleaned west brine tank at North Water Plant
- Repaired water service 205 North 9th

- Install new castings on storm drains and rebuilt intakes 1200 North 6th Street
- Replaced water heater at North Water Plant

Wastewater Facilities

Maintenance staff performed 89 preventative and 4 corrective work orders at the Consolidated Plant, and, 35 preventatives work orders at the Pre-Treatment plant.

- Installed new starter and overloads on Screw Pump #1
- Replaced screw pump channel float switches
- Installed new rain cap on the emergency generator
- Replaced air relief valve on forcemain by Dexter's

Street/Grounds/Right of Way/Fleet

- Various tree removal
- Street patching
- Scheduled vehicle service work (lube, oil, filters)
- Replaced starter on T40
- Replaced alternator and fan belt on T14
- 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	1,752	7,797
Salt	20,331	66,766
Polyphosphate	0	6,717
Total	\$22,082	\$81,280
Threshold	\$22,667	\$90,668
Over (Under)	\$(585)	\$(9,388)

6. HEALTH & SAFETY

Monthly training topic was review of ladder safety. We did have a safety incident in August involving a finger injury whereby an employee was working on the large brush hog mower and his finger was lacerated along with a broken knuckle. The employee has recovered and has returned to work.

7. CAPITAL PROJECTS

Contractor mobilization for Well 10

Plan review for CSO Phase 1

Plan review for water treatment additional softener