



woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

Monthly Operating REPORT

Monmouth, Illinois

Department of
Public Works

December 2016



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EXECUTIVE SUMMARY

The December 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.

First snow event of the winter season occurred on December 4th. Several other salting events were required during the month.

Well 10 drilling and test pumping was completed before Christmas, information is being sent to IEPA along with the C2 permit application. (C2 permit is required to put the well into service).

Pre-construction meeting was held at City Hall in December for the CSO Phase 1 Screw Pump replacement project. Two bids were received at the January bid opening and have been reviewed by Woodard Curran. Jennifer Anders will be providing a recommendation for approval at the February 6th Council meeting.

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 78 million gallons of wastewater in the month of December. There were 0 combined sewer overflow events in December. The weather station at the plant reported 0.5” of rainfall and 7.5” of snow 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)	2.52	4.62
Ammonia N mg/l	0.8	1.5
CBOD5 mg/l	3	10
Chlorides mg/l	367	500
Suspended Solids mg/l	9	12
Total Phosphorus	0.8	1.0

2. WATER TREATMENT

The water treatment plants produced 78 million gallons of finished water in December. 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	2.52 MG	76 MG
Poly Phosphate Usage-lbs.	78	2,407 lbs
Salt Usage — tons	4.8	150 tons
Chlorine Usage - lbs.	100	3,114 lbs

3. BILLING AND COLLECTION

Table 3-1: Billing/Collection

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

DATE	PAYMENTS	PAYMENTS DECEMBER 2016						FARM BONDS	FARM SURCHARGE	PENALTY
		WATER	SEWER	LANDFILL	RECYCLE	GARBAGE	YARD WASTE			
12/01/16	\$16,698.31	\$7,829.02	\$5,510.84	\$1,015.54	\$694.12	\$1,542.20	\$96.20	\$0.00	\$0.00	\$10.39
12/02/16	\$17,178.78	\$7,438.60	\$5,096.32	\$1,355.66	\$913.90	\$2,233.22	\$141.08	\$0.00	\$0.00	\$0.00
12/05/16	\$61,196.67	\$27,925.40	\$19,070.39	\$4,340.59	\$2,939.47	\$6,510.05	\$406.37	\$0.00	\$0.00	\$4.40
12/06/16	\$32,870.48	\$15,344.10	\$13,698.79	\$1,085.46	\$733.43	\$1,890.06	\$118.30	\$0.00	\$0.00	\$0.34
12/07/16	\$12,645.22	\$5,887.72	\$4,321.73	\$720.38	\$489.34	\$1,153.90	\$72.15	\$0.00	\$0.00	\$0.00
12/08/16	\$43,496.96	\$20,982.72	\$17,592.66	\$1,560.50	\$1,006.45	\$2,161.97	\$134.55	\$0.00	\$0.00	\$58.11
12/09/16	\$212,751.42	\$93,210.18	\$86,602.92	\$4,365.25	\$2,930.80	\$7,512.37	\$472.55	\$15,886.40	\$1,763.19	\$7.76
12/12/16	\$6,201.69	\$2,637.78	\$1,811.49	\$456.30	\$304.91	\$728.70	\$46.15	\$0.00	\$0.00	\$216.36
12/13/16	\$14,444.55	\$6,985.55	\$5,611.01	\$434.89	\$290.66	\$566.59	\$35.75	\$0.00	\$0.00	\$520.10
12/14/16	\$5,943.99	\$2,436.69	\$1,726.97	\$469.19	\$313.29	\$750.61	\$46.95	\$0.00	\$0.00	\$200.29
12/15/16	\$10,741.46	\$4,625.66	\$3,355.31	\$693.32	\$463.33	\$1,135.87	\$70.85	\$0.00	\$0.00	\$397.12
12/16/16	\$13,817.96	\$6,298.48	\$4,719.90	\$670.21	\$451.65	\$1,068.60	\$67.60	\$0.00	\$0.00	\$541.52
12/19/16	\$9,514.76	\$3,954.36	\$2,949.44	\$664.88	\$444.28	\$1,089.43	\$68.25	\$0.00	\$0.00	\$344.12
12/20/16	\$2,868.23	\$1,250.62	\$909.44	\$173.33	\$115.82	\$300.16	\$18.85	\$0.00	\$0.00	\$100.01
12/21/16	\$2,887.93	\$2,041.02	\$468.81	\$100.22	\$66.93	\$153.80	\$10.40	\$0.00	\$0.00	\$46.75
12/22/16	\$818.93	\$302.24	\$227.59	\$77.58	\$51.69	\$134.31	\$11.05	\$0.00	\$0.00	\$14.47
12/27/16	\$13,850.38	\$5,838.40	\$4,022.70	\$1,122.62	\$762.21	\$1,892.06	\$126.99	\$0.00	\$0.00	\$85.40
12/28/16	\$7,054.30	\$3,052.74	\$1,905.37	\$624.21	\$417.06	\$976.62	\$61.41	\$0.00	\$0.00	\$16.89
12/29/16	\$8,451.73	\$3,351.41	\$2,545.33	\$765.62	\$510.25	\$1,201.13	\$67.75	\$0.00	\$0.00	\$10.24
12/30/16	\$0.00									
TOTAL	\$493,433.75	\$221,392.69	\$182,147.01	\$20,695.75	\$13,899.59	\$33,001.65	\$2,073.20	\$15,886.40	\$1,763.19	\$2,574.27

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	\$130,818	\$995,089	\$925,183	\$1,492,633
Utilities	\$2,500	\$2,480	\$20,000	\$18,796	\$30,000
Chemicals Costs	\$22,667	\$35,386	\$181,333	\$181,518	\$272,000
Maintenance and Repair Costs	\$27,833	\$28,244	\$222,667	\$250,771	\$334,000
Sludge Disposal Costs	\$0	\$0	\$0	\$5,000	\$0
Lab Supplies & Equipment	\$3,375	\$4,219	\$27,000	\$25,539	\$40,500
Office Supplies	\$1,500	\$1,252	\$12,000	\$13,060	\$18,000
Miscellaneous Expenses	\$5,017	\$5,042	\$40,133	\$44,472	\$60,200
Other Operating Costs	\$12,494	\$4,419	\$99,951	\$90,171	\$149,927
Overhead (G&A of D.L.)	\$28,087	\$29,540	\$224,697	\$208,912	\$337,046
Subtotal of Costs - Contract Year 4	\$227,859	\$241,400	\$1,822,871	\$1,763,422	\$2,734,306
Fixed Fee for Contract Year 4	\$16,406	\$17,381	\$131,247	\$126,966	\$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	545	12,185
Electrical	0	18,912
Street	3,273	70,653
Water Distribution	6,490	39,924
Sewer Collection	1,445	5,262
Instrumentation	623	2,340
Mechanical	2,761	56,330
Vehicle	11,903	35,575
Tools	85	610
Janitorial/Misc.	987	5,433
HVAC Maintenance	0	2,859
Maintenance Agreements	45	158
Landscaping	87	529
Snow Removal	0	0
Total Expenditures	28,244	250,771
Threshold	27,833	222,664
Over (Under)	411	28,107

A SUMMARY OF MAINTENANCE & REPAIR ACTIVITIES:

Water/Street Facilities

Maintenance staff completed 78 preventative and 24 corrective work orders for the water plants, distribution system, and fleet in December. 70 requests for service were responded to by service personnel. 59 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 5 water meters
- Repaired water main 800 block North 9th
- Repaired water main 800 block South 8th
- Repaired water service 800 West 4th
- Replaced water service 509 East 5th
- Cleaned storm intakes and manholes next to cemetery on North 6th Street

Wastewater Facilities

Maintenance staff performed 85 preventatives and 2 corrective work orders at the Consolidated Plant, and, 35 preventatives work orders and 1 corrective work order at the Pre-Treatment plant.

- Cleaned grit channel
- Replaced shear pin and adjusted tension on both grit collectors
- Replaced all chemical feed lines from the chemical feed pumps to the phos removal unit, installed PVC chase pipe and pulled new chemical feed lines through for future ease of replacement

Street/Grounds/Right of Way/Fleet

- Various tree removal
- Snow removal, 1 event on December 4
- Scheduled vehicle service work (lube, oil, filters)
- Replaced PPI valve on T14
- Repaired/replaced wiring harness for snow plow on T19
- Replaced oil plug o-ring on Street Sweeper, winterized, and stored at Fire Station
- Replaced front differential seal, brake lines, resealed boom cylinder, resealed quick couple on Komatsu end loader
- Repaired snow plow controls on T15
- Replaced solenoid, air filter, fuel filter on T16
- Repaired snow plow controls on T17
- Replaced air sensor on T14
- Replaced blower switch on T18
- Replaced alternator and regulator on Motor Grader
- Replaced radiator on meter reader car C2
- Installed heavy duty spring kit on T18
- Installed heavy duty spring kit on T19

5.2 CHEMICAL COST DETAIL

Process chemical costs for water treatment

Table 5-2: Process Chemical Costs

	Month	YTD
Chlorine	2,628	15,973
Salt	25,744	140,051
Polyphosphate	7,014	25,495
Total	35,386	181,519
Threshold	22,667	181,336
Over (Under)	12,719	183

6. HEALTH & SAFETY

Monthly training and year-end review completed. Staff working on deficient items identified in the most recent safety audit.

7. CAPITAL PROJECTS

Well 10 drilling and test pumping completed in December

Pre – bid meeting for CSO Phase 1 project in December. Jennifer Anders will be providing a recommendation to award the project at the February 6th City Council meeting

Received construction permit from IEPA for installation of additional water softener at North Water Plant. Jennifer Anders will be providing a recommendation for installation of the softener at the City Council meeting on February 6th.

Jennifer Anders will be providing a presentation on the findings of the North WWTP study at the City Council meeting on February 6th.