



# MONTHLY OPERATION REPORT

Monmouth, Illinois

Department of  
Public Works

December 2022



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## EXECUTIVE SUMMARY

The December Public Works monthly report provides an overview of the month's activities and statistical data including safety training, 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.

The new trailer vac is scheduled for delivery the week of January 30, the vendor is also providing a day of training on the unit

The water tower leak repair will have to be done by an underwater tank repair company. We have determined that isolating and draining the tower to make the repair isn't a feasible option due to a number of factors including large pressure fluctuations that would result in water main breaks, damage to the high service pumps due to back pressure, and the opposite whereby water pressure may drop considerably. With those issues in mind we have requested quotes to perform a "wet repair", essentially involving diving the tank and underwater welding of the patch. This isn't a new technology and a number of companies offer this service. By employing this repair method there is no need to drain the tower. So far we have received a quote from one vendor and are awaiting additional responses before selection.

We are scheduling refurbishment of the other 2 softeners at the north water plant as another softener has experience the same condition that the first two did this past fall where the internal bottom plate has had a structural failure causing loss of the softener media. The first two softeners refurb have been completed and are back in service.

The City was awarded a \$40,000 grant from the Illinois EPA to fund the water service line inventory as required by law. This entails compiling an inventory of every water service that is connected to the public water system to determine the number of lead service lines that will need to be replaced in the future.

We have begun investigating the potential of a City-wide water meter replacement program. Many of the existing water meters are 30 plus years old or older. These meters tend to lose their accuracy over time and contribute to a high amount of unaccounted for water when compared to the of the amount of water produced versus the amount of water billed for on a monthly basis.

Please contact me at 309-734-4026 with any questions.

Regards, Andy

## 1. HEALTH & SAFETY

There were no safety incidents or near misses in December. Staff continues to complete monthly and annual training on the required OSHA topics.



## 2. WASTEWATER TREATMENT

The Consolidated WWTP treated and discharged 98 million gallons of treated wastewater in the month of December . There were no combined sewer overflow events in December . The weather station at the plant reported 1.9” of rain and 3 inches 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 2-1: Water Quality vs. NPDES Permit Limits**

	<b>Monthly Average</b>	<b>Permit Limit</b>
Flow (MGD)	3.2	4.62
Ammonia N mg/l	0.2	1.5
CBOD5 mg/l	2	10
Total Phos	0.6	1
Chloride's mg/l	390	500
Suspended Solids mg/l	5	12

### 3. WATER TREATMENT

The water treatment plants produced 92 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 3-1: Monthly Chemical Usage for Ion Exchange Softening**

	<b>Daily Average</b>	<b>Monthly Total</b>
Treated Water to System	3.1 MG	92 MG
Poly Phosphate Usage-lbs.	94	2,736 lbs.
Salt Usage — tons	4.7 Tons	138 tons
Chlorine Usage - lbs.	128	3,715 lbs.

## 4. REVENUE COLLECTION

The table below outlines the revenue collected from the Municipal Services billings for the fiscal year.

**Table 4-1: FY to Date**

PAYMENT TOTALS 2022-2023 FISCAL YEAR										
MONTH	WATER	SEWER	INFRASTRUCTURE	RECYCLE	GARBAGE	YARD WASTE	FARM BONDS	FARM SURCHARGE	OTHER	PENALTY
MAY '22	\$238,138.83	\$182,768.79	\$20,903.44	\$16,627.00	\$37,535.70	\$2,947.42	\$73,395.48	\$0.00	\$0.00	\$1,276.70
JUNE	\$252,784.63	\$194,196.43	\$20,831.30	\$16,275.74	\$37,909.78	\$2,754.18	\$73,712.48	\$0.00	\$50.00	\$1,717.98
JULY	\$258,021.50	\$202,500.53	\$20,167.27	\$15,865.46	\$36,806.86	\$2,707.88	\$73,712.48	\$0.00	\$100.00	\$2,031.32
AUGUST	\$274,851.26	\$205,046.08	\$21,898.91	\$17,425.06	\$39,956.16	\$2,859.64	\$73,712.48	\$322.89	\$50.00	\$2,751.97
SEPTEMBER	\$273,088.98	\$200,824.79	\$21,048.49	\$16,556.20	\$37,604.00	\$2,731.24	\$73,712.48	\$0.00	\$160.00	\$2,420.30
OCTOBER	\$296,258.34	\$217,360.71	\$22,235.16	\$17,545.06	\$40,128.98	\$2,987.99	\$73,712.48	\$0.00	\$59.96	\$2,295.75
NOVEMBER	\$258,245.61	\$191,830.82	\$19,222.77	\$15,134.23	\$34,377.77	\$2,663.73	\$73,712.48	\$0.00	\$50.00	\$1,527.30
DECEMBER	\$269,712.45	\$199,656.08	\$22,266.31	\$17,675.18	\$40,166.97	\$2,826.98	\$73,712.48	\$593.84	\$55.14	\$2,052.16
JANUARY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FEBRUARY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MARCH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
APRIL '23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>YEAR TO DATE</b>	<b>\$2,121,101.60</b>	<b>\$1,594,184.23</b>	<b>\$168,573.65</b>	<b>\$133,103.93</b>	<b>\$304,486.22</b>	<b>\$22,479.06</b>	<b>\$589,382.84</b>	<b>\$916.73</b>	<b>\$525.10</b>	<b>\$16,073.48</b>
<b>TOTAL REVENUE</b>	<b>\$4,950,826.84</b>									

## 5. ANNUAL BUDGET – YEAR 10

The table below outlines the month and annual cost summary

**Table 5-1: Annual Budget**

<b>Budget Category</b>	<b>Month Budget</b>	<b>Month Actual</b>	<b>YTD Budget</b>	<b>YTD Actual</b>	<b>Annual Budget</b>	<b>Over (Under)</b>
Labor (D.L. + FB)	\$150,805	\$147,362	\$1,052,743	\$1,023,064	\$1,568,372	(\$29,679)
Utilities	\$3,795	\$6,756	\$26,494	\$26,508	\$39,471	\$14
Chemicals Costs	\$29,534	\$41,217	\$206,175	\$252,229	\$307,158	\$46,054
Maintenance\Repair	\$35,917	\$14,426	\$250,733	\$230,081	\$373,541	(\$20,652)
Sludge Disposal Costs	\$687	\$0	\$4,793	\$0	\$7,140	(\$4,793)
Lab Supplies\Equip	\$3,874	\$1,925	\$27,044	\$32,190	\$40,290	\$5,146
Office Supplies	\$2,118	\$3,118	\$14,788	\$18,027	\$22,031	\$3,239
Miscellaneous Expenses	\$4,678	\$4,505	\$32,654	\$53,912	\$48,648	\$21,258
Other Operating Costs	\$18,097	\$15,164	\$126,332	\$167,409	\$188,209	\$41,077
Overhead (G.A.)	\$34,053	\$33,275	\$237,716	\$231,014	\$354,149	(\$6,702)
Subtotal Year 10	<b>\$283,559</b>	<b>\$267,748</b>	<b>\$1,979,472</b>	<b>\$2,034,434</b>	<b>\$2,949,009</b>	\$54,962
Fixed Fee Year 10	\$20,416	\$19,278	\$142,522	\$146,479	\$212,329	\$3,957
<b>Total</b>	<b>\$303,975</b>	<b>\$287,026</b>	<b>\$2,121,994</b>	<b>\$2,180,913</b>	<b>\$3,161,338</b>	<b>\$58,919</b>



## 6. MAINTENANCE ACTIVITIES

Utilizing the Utility Cloud maintenance management program, staff completed 185 preventative and corrective workorders in December

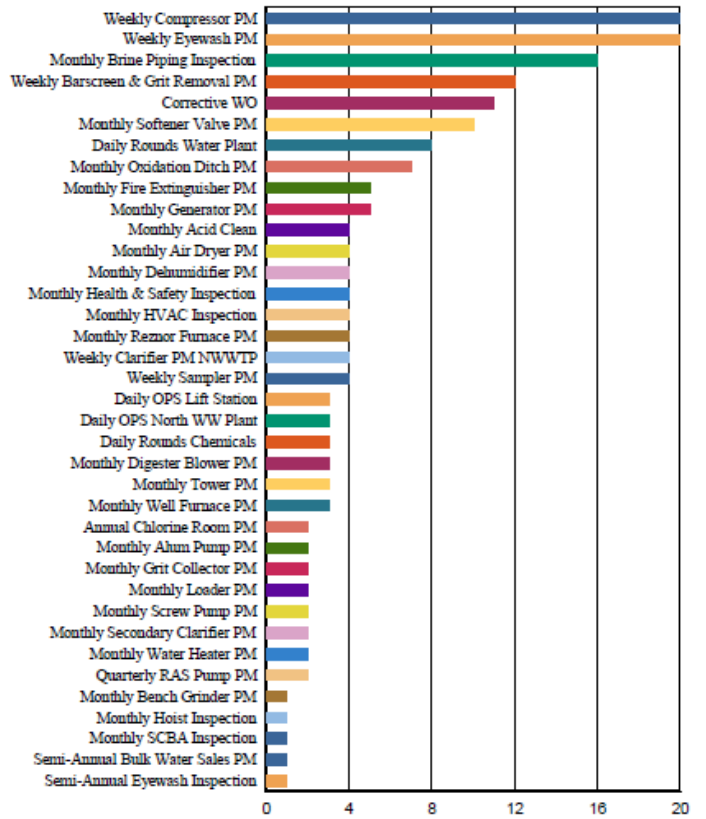


### Maintenance History Report Monmouth

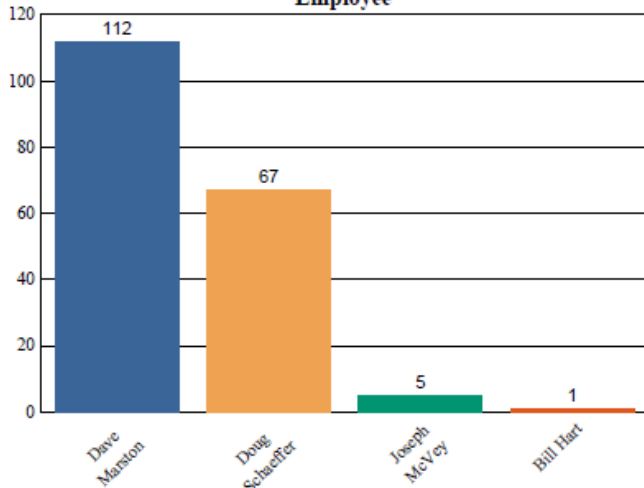
Report Start 12/1/2022  
Report End 12/31/2022

Work Orders by Type	Total
Corrective Maintenance	28
Inspections	53
Preventative Maintenance	104
<b>Total</b>	<b>185</b>

Work Orders by Description



Work Orders by Employee





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