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COMMITMENT & INTEGRITY DRIVE RESULTS

Monthly Operating REPORT

Monmouth, Illinois

Department of
Public Works

July 2021



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EXECUTIVE SUMMARY

The July 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.

GIGO bio retention basin project : The test pits were excavated to determine soil conditions in the MR238 parking lot were dug, samples taken, and pits backfilled and patched. Engineering is awaiting test results to move forward with design.

North WWTP construction: The project has reached substantial completion as of 8-23-2021. Engineering will be doing a walk-through next week to develop the final punch list items for final completion and close out of the project. There are a couple of items outstanding that have a fairly long lead time so final completion is probably still 30 days away.

East Jackson Avenue Housing Development: The brush and trees have been cleared off the site, site contours and dirt work have commenced. Underground utility work (water & sewer installation) will be starting soon.

MWI has scheduled the fall cleanup week for October 4-8, the August municipal services bills to all customers included this notification.

Other items : replacement sludge pump at the City WWTP that was ordered last October finally arrived this week. A variable speed drive has failed at the main pump station on one of the large wastewater pumps, the distributor/manufacturer has been working through the fault codes to determine the issue and resolution, unknown at this point but hope to have information on the solution within the next couple of weeks.

Richard has been doing some pressure monitoring within the water distribution system to see if there is a correlation between a pressure spike and some of the large diameter water main breaks we've had recently. The early indications are this is contributing to that issue, potential solutions include installing variable speed drives and motors on the high service pumps at the water plants. The high service pumps pump the finished water from the plants into the water distribution system on demand and are a key component in the system.

Richard is also looking into the possibility of switching disinfection methods from gas chlorine to sodium hypochlorite, (bleach would be the common term), for the drinking water disinfection. Gas chlorine costs have risen drastically this past year, plus the public safety concern of storing pressurized gas chlorine, are the main drivers to explore this possibility. Illinois EPA would have to approve the switch over; many communities have gotten away from gas chlorine systems and went to the sodium hypochlorite for drinking water disinfection, so it has become a very common practice.

Grant applications update: Still awaiting word on the following grant applications including: CDBG \$525,000 for West Harlem water main, Senator Durbin earmark (STAG grant) \$500,000 for West Harlem water main, RAISE grant \$1,700,000 for West Harlem Road Reconstruction, USDA \$1,000,000 for downtown sewer replacement/rehabilitation. City did receive notice that the DCEO Appropriation Grant for \$665,000 to complete the East Euclid water main from North 6th to North 9th has moved to DCEO legal review with a hopeful NOGA (Notice of Grant Award) to follow shortly.

Engineering work: Jennifer's team has begun work on the AWIA emergency response plan due to USEPA December 30, IEPA mandated disinfection project at the wastewater treatment plant (design to be submitted by December 31st), upgrade SCADA systems at the water and wastewater treatment plants to meet the cyber security and system reliability requirements.

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

Regards, Andy

1. HEALTH AND SAFETY/STAFF

There were no safety incidents or near misses in July . With the COVID 19 pandemic affected everyone, our staff is updated regularly on any new policy change, preventative measures, and PPE. All staff members are practicing social distancing while at work to help prevent the spread of the virus.

2. WASTEWATER TREATMENT

The Consolidated WWTP treated and discharged 181 million gallons of treated wastewater in the month of July . An additional 13 million gallons of excess flow was discharged thru the stormwater plant. There were 4 combined sewer overflow events in July . The weather station at the plant reported 4.75” of rain 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

	Monthly Average	Permit Limit
Flow (MGD)	5.73	4.62
Ammonia N mg/l	0.2	1.5
CBOD5 mg/l	3	10
Total Phos	0.8	1
Chlorides mg/l	286	500
Suspended Solids mg/l	11	12

3. WATER TREATMENT

The water treatment plants produced 90 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 3-1: Monthly Chemical Usage for Ion Exchange Softening

	Daily Average	Monthly Total
Treated Water to System	2.9 MG	90 MG
Poly Phosphate Usage-lbs.	103 lbs.	3,188 lbs.
Salt Usage = tons	4.7	145 tons
Chlorine Usage - lbs.	111	3,435 lbs.

5. TOTAL ANNUAL COST

Table 5-1: Annual Budget – Year 9

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	over(under)
Labor (D.L. + FB)	\$117,555	\$110,509	\$351,699	\$357,185	\$1,528,218	\$5,486
Utilities	\$3,017	\$3,071	\$9,026	\$7,368	\$39,222	(\$1,658)
Chemicals Costs	\$24,213	\$20,390	\$72,439	\$54,032	\$314,763	(\$18,407)
Maintenance\Repair	\$28,094	\$24,521	\$84,051	\$81,819	\$365,220	(\$2,232)
Sludge Disposal Costs	\$0	\$7,500	\$0	\$7,500	\$0	\$7,500
Lab Supplies\Equip	\$3,298	\$2,834	\$9,866	\$9,683	\$42,871	(\$183)
Office Supplies	\$1,425	\$2,176	\$4,264	\$7,104	\$18,526	\$2,840
Miscellaneous Expenses	\$3,742	\$3,622	\$11,196	\$11,795	\$48,648	\$599
Other Operating Costs	\$10,861	\$21,833	\$32,495	\$65,133	\$141,199	\$32,638
Overhead (G.A.)	\$26,545	\$24,954	\$79,416	\$80,655	\$345,081	\$1,239
Subtotal Year 8	\$218,750	\$221,409	\$654,452	\$682,274	\$2,843,748	\$27,822
Fixed Fee Year 8	\$15,750	\$15,941	\$47,121	\$49,124	\$204,750	\$2,003
Total	\$234,500	\$237,351	\$701,572	\$731,398	\$3,048,498	\$29,825

6. MAINTENANCE ACTIVITIES

Utilizing the Utility Cloud maintenance management program, staff completed 246 preventative and 25 corrective workorders in July. Click the icon's below to view the details.



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