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COMMITMENT & INTEGRITY DRIVE RESULTS

# Monthly Operating REPORT

Monmouth, Illinois

Department of  
Public Works

November 2017



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## EXECUTIVE SUMMARY

The November 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.

Highlighted activities for the month are listed below:

- Design work on the replacement of the force main from Smithfield Lift Station to the pre-treatment plant has concluded. The project has received a construction permit from IEPA and was advertised for bid on November 28<sup>th</sup> with a letting on December 14<sup>th</sup>.
- Leaf pickup was in full vigor through November.
- CSO project slightly ahead of schedule, anticipating startup the first or second week of January, substantial completion March 1<sup>st</sup>.
- CDBG grant application for replacement of the water main along East 9<sup>th</sup> and South 5<sup>th</sup> is on schedule for submittal by mid-December. The City received a construction permit form IEPA for the project should the application and award of the grant be successful.
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Feel free to stop by the office or give me a call, 309-734-4026 if you have any questions or comments.

Regards, Andy

## 1. HEALTH AND SAFETY/STAFF

Staff completed the annual Lockout Tagout review and training plus an emergency evacuation drill was conducted through our PureSafety online interactive program. There were no safety incidents or near misses in November. One recordable lost time accident for the year involving a minor hand injury.

No new staff issues or items.

## 2. WASTEWATER TREATMENT

The Consolidated WWTP treated and discharged 88 million gallons of wastewater in the month of November. There were 0 combined sewer overflow events in November. The weather station at the plant reported 1.5” 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 2-1: Water Quality vs. NPDES Permit Limits**

	Monthly Average	Permit Limit
Flow (MGD)	2.92	4.62
Ammonia N mg/l	0.1	1.5
CBOD5 mg/l	1	10
Total Phos	0.8	1
Chlorides mg/l	360	500
Suspended Solids mg/l	4	12

## 3. WATER TREATMENT

The water treatment plants produced 80 million gallons of finished water in November. 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	2.68 MG	80 MG
Poly Phosphate Usage-lbs.	84	2,533lbs
Salt Usage — tons	5.1	153 tons
Chlorine Usage - lbs.	108	3,228 lbs



## 5. ESTIMATED ANNUAL COST

Table 5-1: Estimated Annual Budget – Year 5

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	over(under)
Labor (D.L. + FB)	\$125,165	\$101,488	\$876,153	\$822,822	\$1,501,976	(\$53,331)
Utilities	\$2,542	\$2,164	\$17,792	\$13,573	\$30,500	(\$4,219)
Chemicals Costs	\$23,044	\$19,420	\$161,311	\$159,304	\$276,533	(\$2,007)
Maintenance\Repair	\$28,297	\$28,219	\$198,081	\$210,547	\$339,567	\$12,466
Sludge Disposal Costs	\$2,069	\$0	\$14,484	\$2,200	\$24,830	(\$12,284)
Lab Supplies\Equip	\$3,431	\$3,781	\$24,019	\$23,238	\$41,175	(\$781)
Office Supplies	\$1,525	\$2,425	\$10,675	\$11,506	\$18,300	\$831
Miscellaneous Expenses	\$12,201	\$4,537	\$85,405	\$40,248	\$146,408	(\$45,157)
Other Operating Costs	\$5,912	\$8,630	\$41,386	\$120,550	\$70,947	\$79,164
Overhead (G.A.)	\$28,263	\$22,917	\$197,841	\$185,799	\$339,156	(\$12,042)
Subtotal Year 5	<b>\$232,449</b>	<b>\$193,580</b>	<b>\$1,627,146</b>	<b>\$1,589,787</b>	<b>\$2,789,392</b>	<b>(\$37,359)</b>
Fixed Fee Year 5	\$16,736	\$13,938	\$117,154	\$114,465	\$200,836	(\$2,690)
<b>Total</b>	<b>\$249,186</b>	<b>\$207,518</b>	<b>\$1,744,300</b>	<b>\$1,704,251</b>	<b>\$2,990,229</b>	<b>(\$40,049)</b>

## 6. MAINTENANCE/REPAIR ACTIVITIES

### A SUMMARY OF MAINTENANCE & REPAIR ACTIVITIES:

#### Water/Street Facilities

Maintenance staff completed 53 preventatives and 21 corrective work orders for the water plants, distribution system, and fleet in November. 105 requests for service were responded to by service personnel. 127 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 12 water meters
- Repaired curb stop 407 North H
- Repaired curb stop 909 South 4th
- Repaired curb stop 321 South E
- Cleaned brine tank at North Water Plant
- Replace motor on chlorine booster pump at South Water Plant

#### Wastewater Facilities

Maintenance staff performed 71 preventatives and 1 corrective work orders at the Consolidated Plant, and, 36 preventative work orders and 5 corrective work orders at the Pre-Treatment plant.

- Repaired influent sampler at Consolidated Plant
- Installed new diaphragm in chemical feed pump at Phos Plant
- Installed new VFD on anaerobic effluent pump
- Replaced seals/bearings on anaerobic effluent pump
- Electrical repairs to gas flare lights and storm water pump on anaerobic lagoon including new breakers and outlets.

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

- Various tree removal and trimming
- Scheduled vehicle service work (lube, oil, filters)
- Street sweeping
- Patching of utility excavations
- Leaf pickup
- Repaired fuel tank, hydraulic leak, and rear axle seal on T15
- Replaced brake sensor on T4
- Martin Equipment serviced the John Deere 310SJ Backhoe



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## 7. CAPITAL PROJECTS

CSO project update –

- All structural components for the actual screw pumps have been poured and cured out, ready to accept the pumps.
- New electrical MCC and CT cabinets have been installed
- Generator pad installed, underground wiring to generator installed
- Screw pumps delivered to site November 28
- Set and grout screw pumps
- Install gear reducers and motors
- Install wiring and controls
- Install manholes and piping to connect to existing splitter box

Leander hopes to have these items completed by year end and startup scheduled for early January