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COMMITMENT & INTEGRITY DRIVE RESULTS

# Monthly Operating REPORT

Monmouth, Illinois

Department of  
Public Works

October 2020



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## TABLE OF CONTENTS

### SECTION

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<b>Executive Summary</b> .....	
<b>1. HEALTH AND SAFETY/STAFF</b> .....	
<b>2. WASTEWATER TREATMENT</b> .....	
<b>4. REVENUE COLLECTION</b> .....	
<b>5. ESTIMATED ANNUAL COST</b> .....	
<b>6. MAINTENANCE ACTIVITIES</b> .....	

## LIST OF TABLES

### TABLE

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Table 1-1:	Water Quality vs. NPDES Permit Limits .....
Table 2-1:	Monthly Chemical Usage for Ion Exchange Softening .....
Table 3-1:	Revenue Collection .....
Table 4-1:	Estimated Annual Budget – Year 8 .....

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## EXECUTIVE SUMMARY

The October 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.

Leaf pickup will continue through the month of December, crew is on the second pass through the City at this time. Yard waste bag collection has been extended through December 11<sup>th</sup>.

Annual land application of sludge from the wastewater treatment plants was completed right ahead of the Thanksgiving holiday. 1,000 dry tons of digested sludge was applied to several hundred acres of farm ground around the treatment plant. The cost for sludge disposal is paid for by Smithfield.

The construction at the North Pre-Treatment plant continues on schedule. Upcoming construction activities will focus on the anaerobic lagoon modifications including new gas collection piping, baffle curtain installation, new gas blowers, new flare, and new cover will all be completed within the next few weeks. After completion of the aeration basin modifications and sludge pumping station, the plant has reestablished biological process and is working quite well. Much credit goes to Superintendent Bill Hart and his staff for managing plant operations around the construction. Rehabilitation of an active plant requires very detailed coordination and planning to ensure continued compliance with EPA regulations.

Well 9 is currently out of service awaiting delivery of new column pipe. Material is scheduled to arrive the week of December 7<sup>th</sup>. There was an electrical failure on Well 9 that required pulling the well pump. The failed components are being sent to the manufacturer for examination and cause which we hope will be under warranty.

Investigating the possibility of relocating a city sewer in the 100 block of South 6<sup>th</sup> Street. The existing 100 plus year old sewer tile is located in the back yards in that block. Several structures have been erected over this sewer in years past which will make it virtually impossible to repair and or replace this sewer. Video of this sewer is showing several pending failures that will need addressed in the near future.

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 October. 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 58 million gallons of treated wastewater in the month of October. With the construction at the North Pretreatment Plant, flow from Smithfield was diverted to storage lagoons while the aeration basin was retrofitted. There were no combined sewer overflow events in October. The weather station at the plant reported 1.6” 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)	1.89	4.62
Ammonia N mg/l	0.2	1.5
CBOD5 mg/l	1	10
Total Phos	0.2	1
Chlorides mg/l	294	500
Suspended Solids mg/l	3	12

### 3. WATER TREATMENT

The water treatment plants produced 93 million gallons of finished water in October. 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	3.01 MG	93 MG
Poly Phosphate Usage-lbs.	104 lbs.	3,231 lbs.
Salt Usage — tons	4.3	135 tons
Chlorine Usage - lbs.	123	3,828 lbs.



## 5. TOTAL ANNUAL COST

Table 5-1: Annual Budget – Year 8

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	over(under)
Labor (D.L. + FB)	\$111,930	\$112,169	\$699,716	\$699,008	\$1,455,092	(\$708)
Utilities	\$3,004	\$1,898	\$18,782	\$12,858	\$39,058	(\$5,924)
Chemicals Costs	\$23,894	\$21,891	\$149,370	\$152,607	\$310,622	\$3,237
Maintenance\Repair	\$28,094	\$21,274	\$175,624	\$111,019	\$365,219	(\$64,605)
Sludge Disposal Costs	\$0	\$0	\$0	\$813	\$0	\$813
Lab Supplies\Equip	\$3,254	\$3,698	\$20,344	\$24,258	\$42,307	\$3,914
Office Supplies	\$1,411	\$81	\$8,821	\$9,219	\$18,344	\$398
Miscellaneous Expenses	\$3,742	\$3,855	\$23,394	\$23,022	\$48,648	(\$372)
Other Operating Costs	\$8,816	\$7,249	\$55,110	\$99,990	\$114,604	\$44,880
Overhead (G.A.)	\$25,275	\$25,328	\$158,000	\$157,841	\$328,569	(\$160)
Subtotal Year 8	<b>\$209,420</b>	<b>\$197,443</b>	<b>\$1,309,163</b>	<b>\$1,290,635</b>	<b>\$2,722,463</b>	<b>(\$18,528)</b>
Fixed Fee Year 8	\$15,078	\$14,216	\$94,260	\$92,926	\$196,017	(\$1,334)
<b>Total</b>	<b>\$224,498</b>	<b>\$211,659</b>	<b>\$1,403,422</b>	<b>\$1,383,560</b>	<b>\$2,918,480</b>	<b>(\$19,862)</b>

## 6. MAINTENANCE ACTIVITIES

Utilizing the Utility Cloud maintenance management program, staff completed 236 preventative and corrective workorders in October. Below is a summary of the months' corrective activities:

Corrective workorders are listed below

WorkOrder	AssetDescription	AssetID	WorkFlowTitle	WorkOrderDescription	WorkOrder	WorkOrder	WorkOrder	DateCreated
270823436	North Wastewater Treatment Plant	WWTP-2	Corrective WO	Welded flange on blower #4	Normal	Closed	Corrective	8/4/2020 1:2
270930959	Ford Mowing Tractor	T8	Corrective WO	Leaking antifreeze from radiator drain plu	Normal	Closed	Corrective	10/1/2020 7
270933308	CUST-35770000	MON-CURB	Corrective WO	5/8 radio read	Normal	Closed	Corrective	10/2/2020 1
270933310	CUST-740000	MON-CURB	Corrective WO	5/8 radio read	Normal	Closed	Corrective	10/2/2020 2
270933324	CUST-3890000	MON-CUST	Corrective WO	5/8 radio read	Normal	Closed	Corrective	10/2/2020 2
270933345	CUST-38180000	MON-CURB	Corrective WO	5/8 radio read	Normal	Closed	Corrective	10/2/2020 2
270933346	CUST-29890000	MON-CURB	Corrective WO	5/8 radio read	Normal	Closed	Corrective	10/2/2020 2
270946607	North 8-in lines	MON-WTR	Corrective WO	100 west Broadway installed New valve	Normal	Closed	Corrective	10/7/2020 1
270946624	North 8-in lines	MON-WTR	Corrective WO	Water main repair 100 west Broadway	Normal	Closed	Corrective	10/7/2020 1
270946649	CUST-3110000	MON-CURB	Corrective WO	Curb stop repair	Normal	Closed	Corrective	10/7/2020 1
270946664	CUST-18610000	MON-CURB	Corrective WO	1000 south B curb stop repair	Normal	Closed	Corrective	10/7/2020 1
270946680	CUST-38180000	MON-CURB	Corrective WO	401 north 9th curb stop repair	Normal	Closed	Corrective	10/7/2020 1
270946684	CB-216	MON_CB-2	Corrective WO	Intake repair	Normal	Closed	Corrective	10/7/2020 1
270951259	2008 Ford F-450	T-11	Corrective WO	Front wheel locking up bad U-joint	Normal	Closed	Corrective	10/9/2020 1
270959076	CUST-19250000	MON-CURB	Corrective WO	227 south C curb stop repair	Normal	Closed	Corrective	10/13/2020
270959093	NE 4-in lines	MON-WTR	Corrective WO	1140 East Detroit water main repair	Normal	Closed	Corrective	10/13/2020
270968326	North Wastewater Treatment Plant	WWTP-2	Corrective WO	Replaced card in GEM PLC	Normal	Closed	Corrective	10/19/2020
270971808	North 8-in lines	MON-WTR	Corrective WO	112 north main street water main repair	Normal	Closed	Corrective	10/20/2020
271004292	12-in Transmission lines	MON-WTR	Corrective WO	421 east girard repair water main	Normal	Closed	Corrective	10/22/2020
271023304	CUST-700000	MON-CURB	Corrective WO	1015 south main curb stop repair	Normal	Closed	Corrective	10/30/2020