

# **CITY OF GREENFIELD WASTEWATER UTILITY**



## **YEAR END REPORT**

### **2017**



## *Wastewater Utility*

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# **TREATMENT PLANT & SEWER SYSTEM 2017 YEAR-END REPORT**

Last year was a bit harrowing for the Wastewater Utility staff. At the onset, the Utility Manager was coming off of a surgery on his left ankle. Who breaks a titanium rod in their ankle? Dave did! Too many high hurdles or marathons? He then crashed on his knee walker and broke his right femur, requiring a new - longer hip replacement. Sounds fun until you pile on open-heart surgery in July.

When a Department Head is out of commission for as long as I was last year, it shows the kind of good people we have at the Wastewater Utility. Everyone kept up their end of the job to make sure we continued to operate at our usual high level. As you will see in the following report, a lot of projects were accomplished and we won a Safety Award from the Indiana Water Environment Federation. (They surely didn't know about Dave?)

We would like to take this opportunity to thank the Mayor's Office, the Board of Works and the Greenfield City Council for their support and funding assistance over the past year. The Plant and Sewer Crews handle a vital role in protecting our environment and a subsurface infrastructure that most are unaware of and what it takes to keep things moving.

## **2017**

- Approximately 12 million gallons of liquid sludge went through our belt press system to create Class A Biosolids. Over 3,378 dry tons of this material was recycled as fertilizer on area farm fields and local gardens. We hope to expand the list of farmers that use this material in 2018. You could stop by and see our test garden this spring and see for yourself how this Class A material really helps. A graph showing some significant differences is included at the end of this report.
- Last year, 53.04" of precipitation was recorded at the Wastewater Treatment Plant. We continue to work on removing (I&I) Inflow & Infiltration of storm water from the sanitary sewer system which causes over-loading at the Plant. Additional funding helps to bring down a rehab project's "per foot costs" and we can get more pipe replaced for less.
- Greenfield is no longer a Combined Sewer Overflow city. We do not spend thousands of dollars annually to monitor these rain events like many Indiana communities. We must continue to do as much as we can for our residents and aging sewer system to extend the life of our treatment plant. Funding additional sewer rehab projects now will delay the need for a Plant expansion in the future.
- Tom Edwards past away in 2017 after being an important part of our team for nearly 10-years. Steve Brenneman and Steve Evanoff became part of our Sewer Crew in 2017.

- \$543,351 was spent on a new 900 KVA generator to replace two 400 KVA generators at the plant. The two old generators depended on E-Bay to have parts available to keep it operational. We now have a much stronger emergency back-up power situation.



New Generator



Old Generators

- The Plant earned a 99% on our Indiana Water Environment Federation safety inspection and won an award at the Annual IWEF Conference.
- The Plant's sludge holding tank was cleaned out

2 years earlier than normal by an outside contractor Merrell Bros., due to some unforeseen debris that was dumped into our sewer system. Steps were taken to prevent this local industry from making the same mistake in the future. Plant personnel don't miss out on the fun. You can see them in the photo as they help squeeze debris and begin air line repairs.



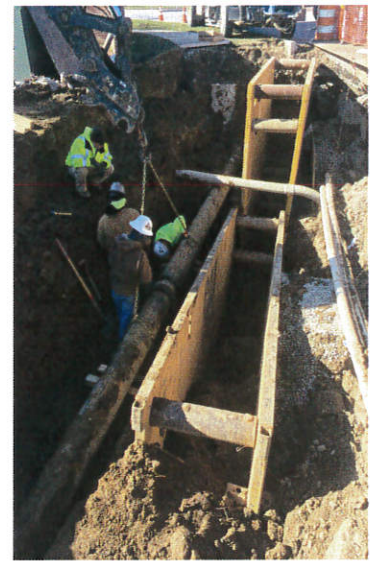
Lunch Time?

- In order to remove water from the Plant's sludge holding tank, 2 drains or supernate lines were added to the side of this 500,000 gallon tank. They will help reduce the amount of sludge that is sent to our belt press.



- The I-70 lift station was power cleaned and sprayed with an epoxy coating to prevent the concrete from crumbling further. A nearby source of hydrogen sulfide was causing severe deterioration. It should now be under control following our requirement for the sewer use customer to begin dripping a specialized chemical into the sewer system.
- The Homeowner Emergency Lateral Repair Program helped 7 different families this year that would have been forced to come up with thousands of dollars to repair or replace their home's sewer lines. (A low number for 2017, but still a program that most cities would not consider)
- Plant personnel work hard every day keeping numerous process control systems going, while the Sewer Crew attempts to maintain and rebuild our aging sanitary and storm sewer system. I couldn't be more proud of our crews for the quality and quantity of work they accomplish on a daily basis.

- Over 2,000 ft. of sanitary sewer main required emergency attention to prevent a catastrophic failure near the intersection of N. Apple St and East McKenzie Rd. The area was torn up for quite some time, but is now back in good order. The 12” clay pipe was laid at nearly 20’ deep and poorly backfilled, shortening its life expectancy by several years. This area should not cause us any more head-aches for quite a while. Altogether, more than \$671,984 was spent on this project in 2016 & 2017.



## 2018

- Hopefully the Utility Manger has a better year this go round, we have a lot planned for 2018.
- A new sewer cleaning truck or Vactor should arrive in April. We saved about \$15,000 by ordering it through the NJPA or National Joint Powers Association (\$397,000) vs. typical purchasing methods.
- Sanitary sewer extension behind the homes on N. Apple St., and East New Rd. will be out for bid in January or February. The project cost is expected to be over (\$300,000).
- We are hoping to receive an OCRA Grant for \$500,000. Along with our matching funds of around \$125,000, we plan to put the \$600,000 towards the rehabilitation of sanitary sewers on South State St. from Osage to Tague and then west toward Noble St. This will include sanitary sewer mains and home laterals, as long as the funds hold out.
- As soon as funds become available, a relief sewer under Brandywine Creek in Riley Park will be out for bid. During heavy rain events, sanitary sewers on the east and north-east sides of town get under pressure causing back-ups. The single 12” sewer line that crosses under the creek is just not big enough for that much territory. The additional 15” sewer and new manholes will connect to the existing 42” sewer in Riley Park. It will relieve existing pressure and allow for a lot of growth in the future.
- Numerous light fixtures both inside and out need to be updated in order to save money at the Plant. We could save between \$800 & \$900 per month, according to a recent projection and the costs of the fixtures should come from existing funds.
- The plant has numerous projects that will require funding in 2018 that could not be completed in 2017 because of budgetary shortfalls and time restraints. This would include the repair of a major air supply line, an in-line “T” valve, a large check valve, several new pump impellers and switching out some radiant heaters for forced air units.

Thanks for taking a look at our 2017 Year End Report. We would also like to thank the other city departments that are always quick to help us out.

Please feel free to call or stop by our office. We look forward to another productive year of working with City leaders and our utility customers.

Sincerely,

*David Scheiter*, Manager  
Greenfield Wastewater Utility

cc: Chuck Fewell, Mayor  
Greenfield City Council Members  
Board of Works Members  
Buzz Krohn, Utility Controller  
Michael Fruth, Utilities Director  
Dan Worl, Business Manager

## 2017 YEARLY FLOW TOTALS

MONTH	TOTAL FLOW	DAILY MAX	PRECIPITATION	SLUDGE TREATED
JANUARY	136.22 Million Gallons	15.11 MGD	4.52 Inches	1,068,500
FEBRUARY	65.49 Million Gallons	2.95 MGD	0.54 Inches	873,600
MARCH	94.38 Million Gallons	9.54 MGD	5.55 Inches	1,014,200
APRIL	91.49 Million Gallons	6.73 MGD	3.83 Inches	1,066,200
MAY	165.21 Million Gallons	14.81 MGD	10.46 Inches	1,000,800
JUNE	94.02 Million Gallons	10.20 MGD	5.18 Inches	772,500
JULY	129.60 Million Gallons	13.01 MGD	9.56 Inches	529,200
AUGUST	70.19 Million Gallons	3.95 MGD	1.50 Inches	1,163,300
SEPTEMBER	57.56 Million Gallons	2.28 MGD	0.56 Inches	600,800
OCTOBER	63.78 Million Gallons	2.83 MGD	3.95 Inches	995,000
NOVEMBER	80.53 Million Gallons	5.98 MGD	5.67 Inches	838,600
DECEMBER	64.54 Million Gallons	2.50 MGD	1.72 Inches	1,085,600
Total Treated Flow for 2017:		<b>1,113,010,000 Gallons</b>		
Total Recorded Precipitation:		<b>53.04 Inches</b>		
Total Sludge Pressed:		<b>11,008,300 Gallons</b>		
Total Treated Flow for 2016:		1,110,390,000 Gallons		
Total Recorded Precipitation:		45.44 Inches		
Total Sludge Pressed:		11,262,800 Gallons		
Total Treated Flow for 2015:		1,229,920,000 Gallons		
Total Recorded Precipitation:		47.47 Inches		
Total Sludge Pressed:		12,314,300 Gallons		
Total Treated Flow for 2014:		1,184,960,000 Gallons		
Total Recorded Precipitation:		52.57 Inches		
Total Sludge Pressed:		12,427,000 Gallons		
Total Treated Flow for 2013:		1,346,710,000 Gallons		
Total Recorded Precipitation:		44.67 Inches		
Total Sludge Pressed:		11,214,100 Gallons		

## 2017 EMERGENCY LATERAL REPAIR & REPLACEMENTS

- |                        |                        |
|------------------------|------------------------|
| 1) 80 Jefferson Blvd.  | 5) 608 N. State St.    |
| 2) 30 Greenbrook Ct.   | 6) 525 W. Pierson St.  |
| 3) 132 Creek View Ct.  | 7) 807 N. Broadway St. |
| 4) 828 N. Michigan St. |                        |

## 2017 LIMB/BRUSH AREA - DROP OFF LOADS

(drivers license witnessed by employee & resident signs log sheet)

JANUARY	27
FEBRUARY	132
MARCH	99
APRIL	232
MAY	243
JUNE	288
JULY	274
AUGUST	265
SEPTEMBER	227
OCTOBER	173
NOVEMBER	119
DECEMBER	60
<b>TOTAL</b>	<hr/> <b>2,139</b>

