

Water /Sewer Systems Concession Lease Update



Presented by:

City of Allentown

Office
of
Compliance

Department
of
Public Works



610-437-7587

December 13, 2017

Wastewater Treatment Plant

Parameter	LCA	Performance Standards	NPDES Discharge Permit Effluent Limitations		
		Monthly Average Effluent Concentration	Monthly Average Effluent Limit	Weekly Average Effluent Limit	Instantaneous (Daily) Maximum Effluent Limit
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	Met Requirement	≤ 12 mg/L	20 mg/L	30 mg/L	40 mg/L
CBOD5 Percent Removal	Met Requirement	≥ 90 %	≥90 %	---	---
Total Suspended Solids (TSS)	Met Requirement	≤12 mg/L	30 mg/L	45 mg/L	60 mg/L
TSS Percent Removal	Met Requirement	≥90 %	≥90 %	---	---
Ammonia Nitrogen (NH ₃ -N) May 1 to October 31	Met Requirement	≤4.0 mg/L	5 mg/L	---	10 mg/L
Ammonia Nitrogen November 1 to April 30	Met Requirement	≤12.4 mg/L	15 mg/L	---	30 mg/L
Fecal Coliform May 1 to September 31	Met Requirement	200/100 ml geometric mean			
Fecal Coliform October 1 to April 30	Met Requirement	2,000/100 ml geometric mean			
Residual Chlorine	Met Requirement	≤0.5 mg/L			
pH	Met Requirement	6.0 to 9.0 SU			
Dissolved Oxygen	Met Requirement	5.0 mg/L minimum			



Wastewater Treatment Plant



pennsylvania

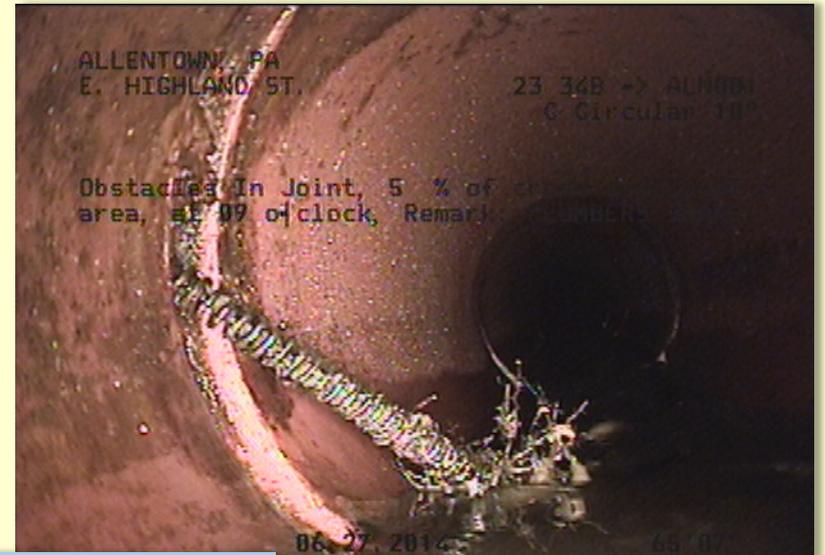
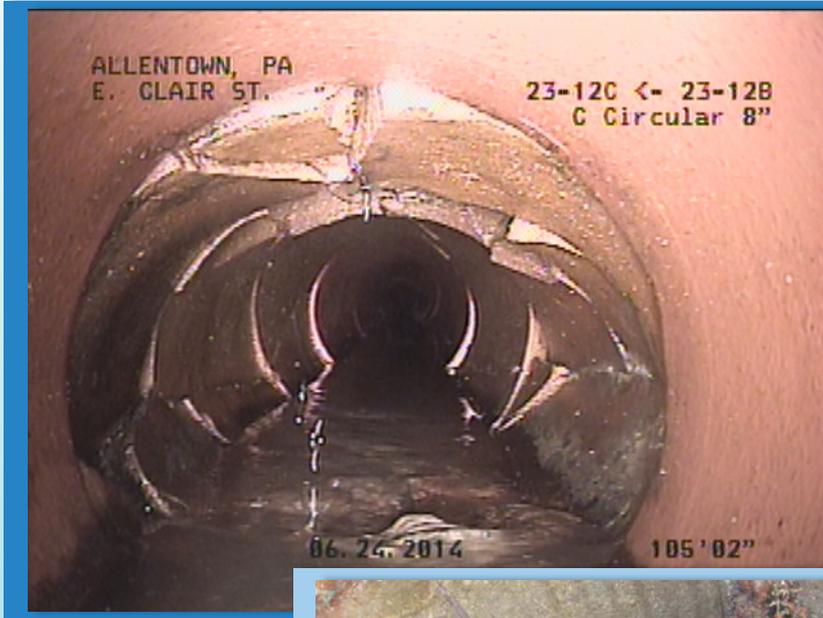
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

In
November
2016,
comments to
the 3rd draft
NPDES Permit
were submitted
to PaDEP.
No response
has been given.



Regulatory Update

Sewage Collection System



**CCTV Minimum
linear footage
requirement:
55,000 feet**



Metrics Update

Drinking Water Treatment and Production

Turbidity:

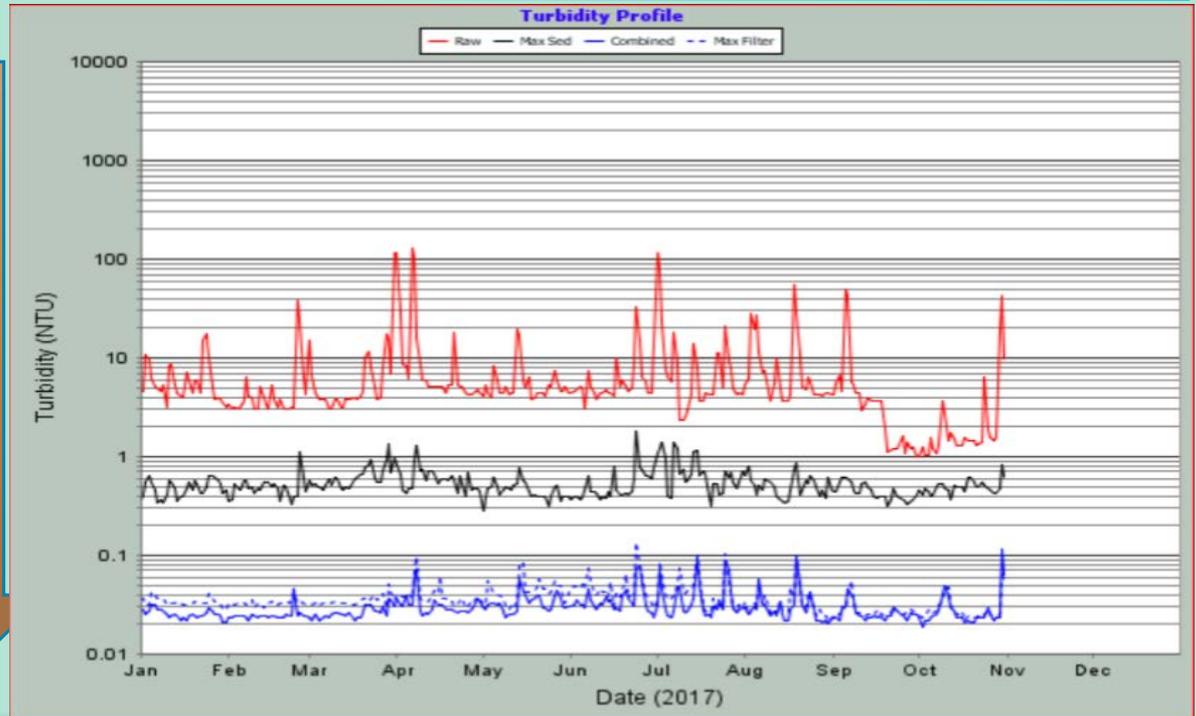
Law: Less than

Or equal to **0.3 NTU**

Partnership: Less than
or equal to **0.1 NTU**

Allentown:

Equal to **0.03 NTU**



ANNUAL DATA	Avg (NTU)	Min (NTU)	Max (NTU)	RSQ	95% (NTU)	Opt. Goal % Values	Reg % Values
Raw Turbidity	8.53	0.98	131.59	n/a	27.28	n/a	n/a
Max. Settled Turbidity	0.54	0.28	1.83	0.17	0.91	96.3	n/a
Max. Filtered Turbidity	0.037	0.022	0.134	0.26	0.061	99	n/a
Combined Filtered Turbidity	0.03	0.019	0.114	0.7	0.05	99.7	100

RSQ = Correlation Coefficient for two selected data sets.
 95% = 95th Percentile value for data set.
 Opt. Goal = % of values in data set that are less than or equal to the selected optimization turbidity goal.
 Reg. = % of values in data set that are less than or equal to the regulated turbidity requirement.

Partnership for Safe Water



Drinking Water Treatment and Production



**NO
Maximum
Contaminant
Levels
were exceeded.**



Contaminant Testing



Drinking Water Distribution System

Hydrants

Inspected

1,456

and

Tested

168.82

Miles of Pipe

Checked

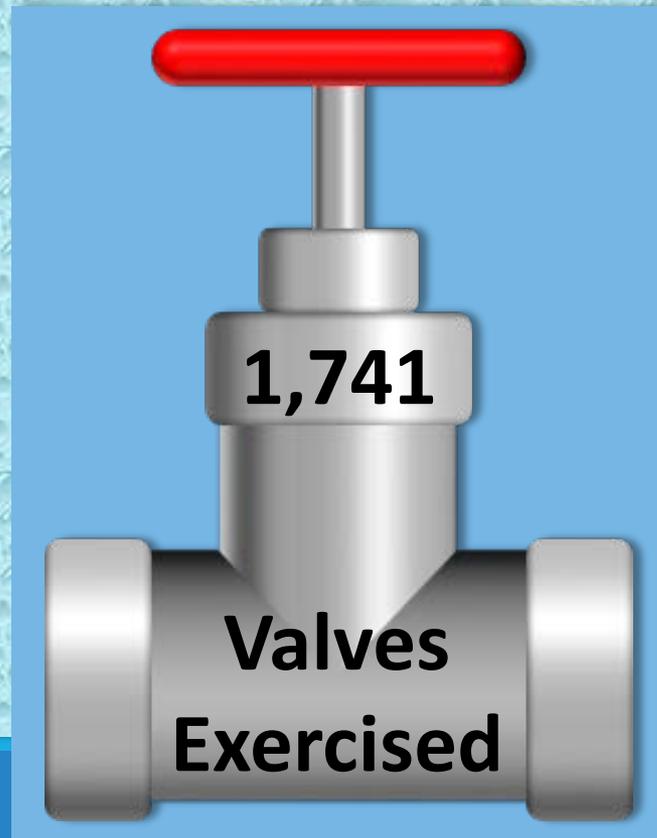
for

leaks

1,741

**Valves
Exercised**

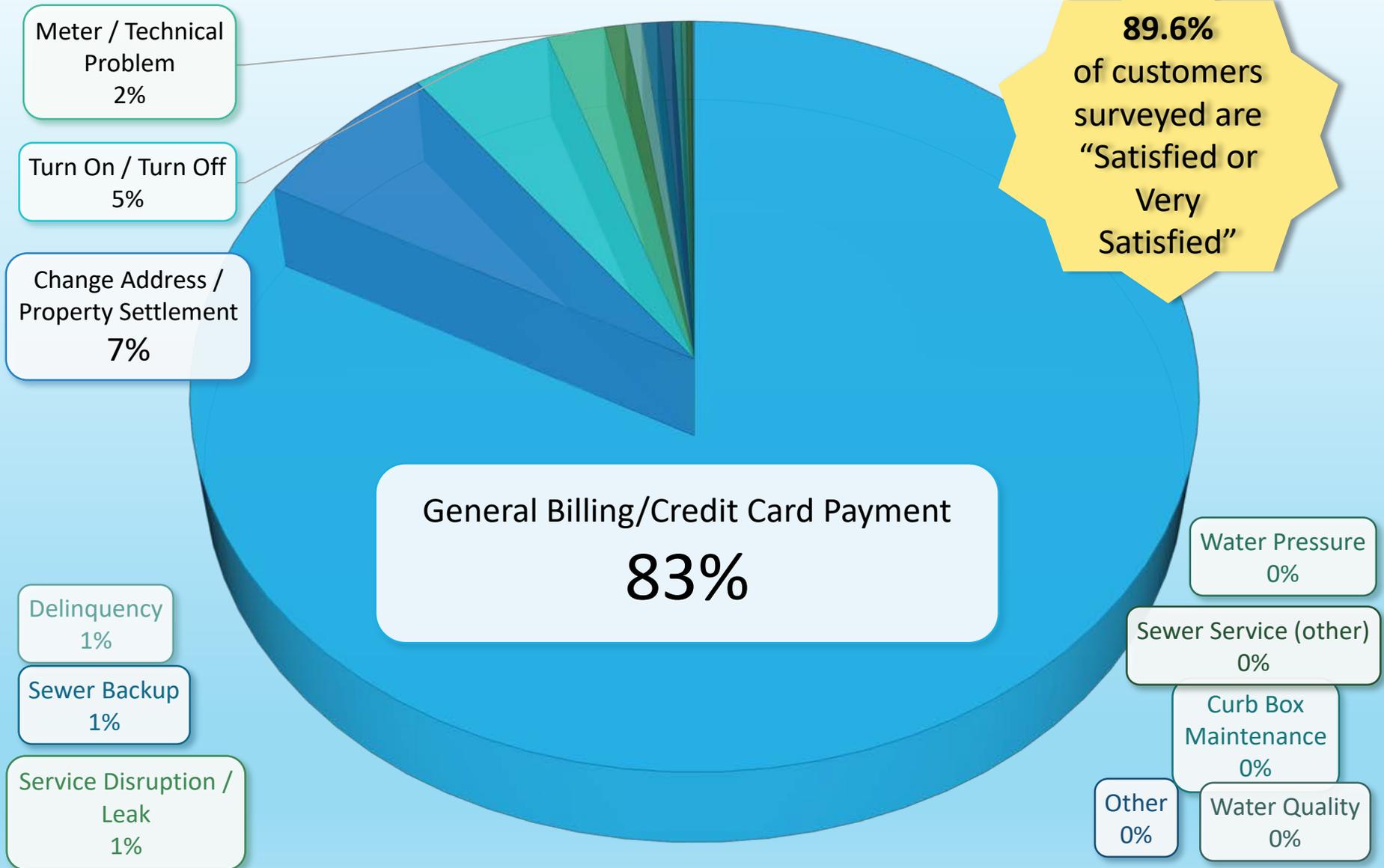
Metrics Update



Notices of Violation



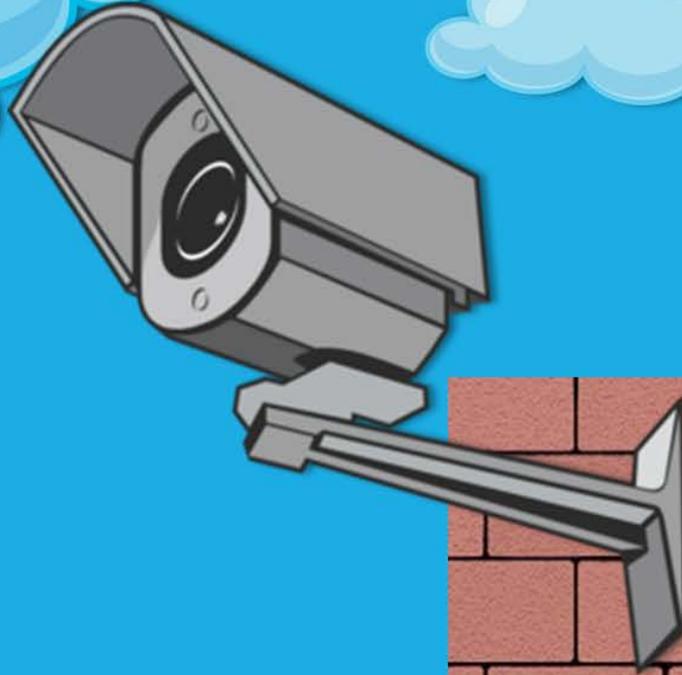
JANUARY – JUNE 2017 CUSTOMER SERVICE CALLS



Security

A security breach
occurred

2/23/2017



Wastewater Treatment Plant Capital Project - 2017

Primary and Secondary Digesters

Replaced anaerobic floating covers

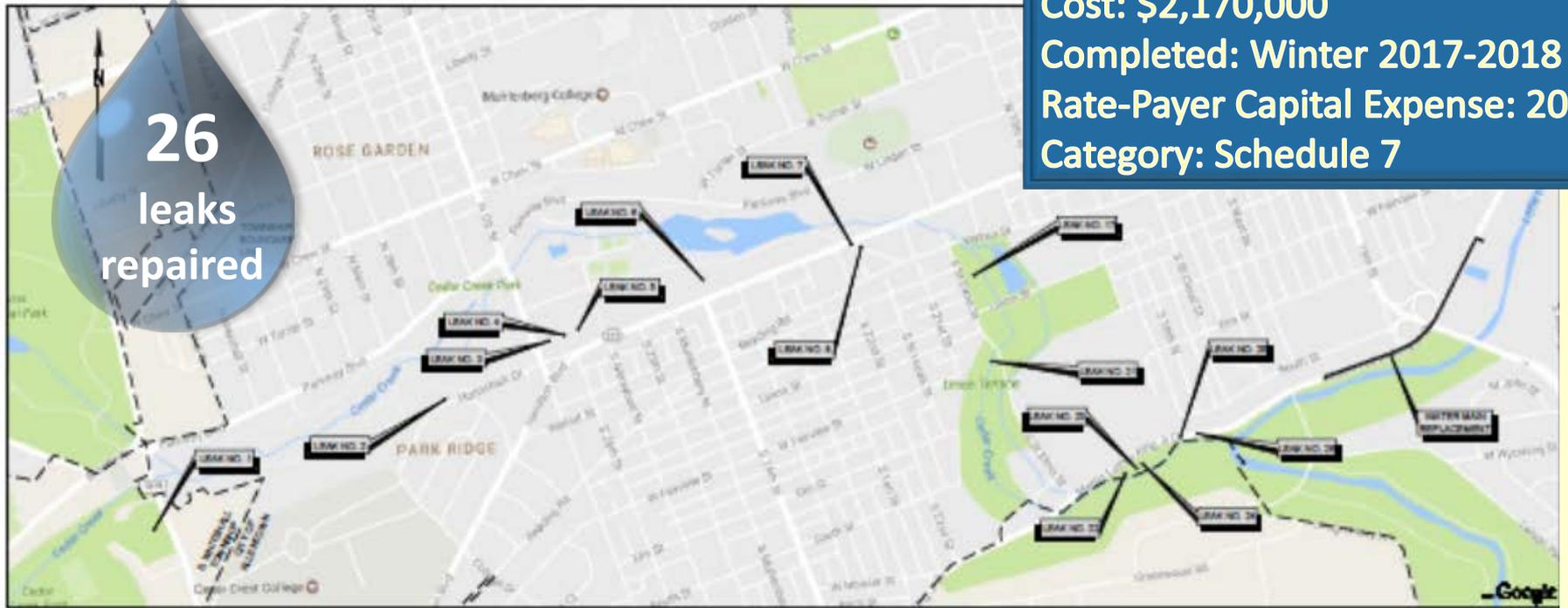


Estimated Cost: \$2,296,228
Completed: Fall of 2017
Rate-Payer Capital Expense: 2019
Category: Schedule 7



Water Filtration Capital Projects - 2017

Schantz Spring Water Main Replacement Project



Cost: \$2,170,000

Completed: Winter 2017-2018

Rate-Payer Capital Expense: 2019

Category: Schedule 7

26
leaks
repaired

2,000 feet of main replacement

30" Diameter Ductile Iron

Distribution System Capital Projects - 2016

Cycle III - Water Main Replacement Project



Cost: \$6,210,968

Completed: Fall 2016

Rate-Payer Capital Expense: 2018

Category: Schedule 7

4.41 miles

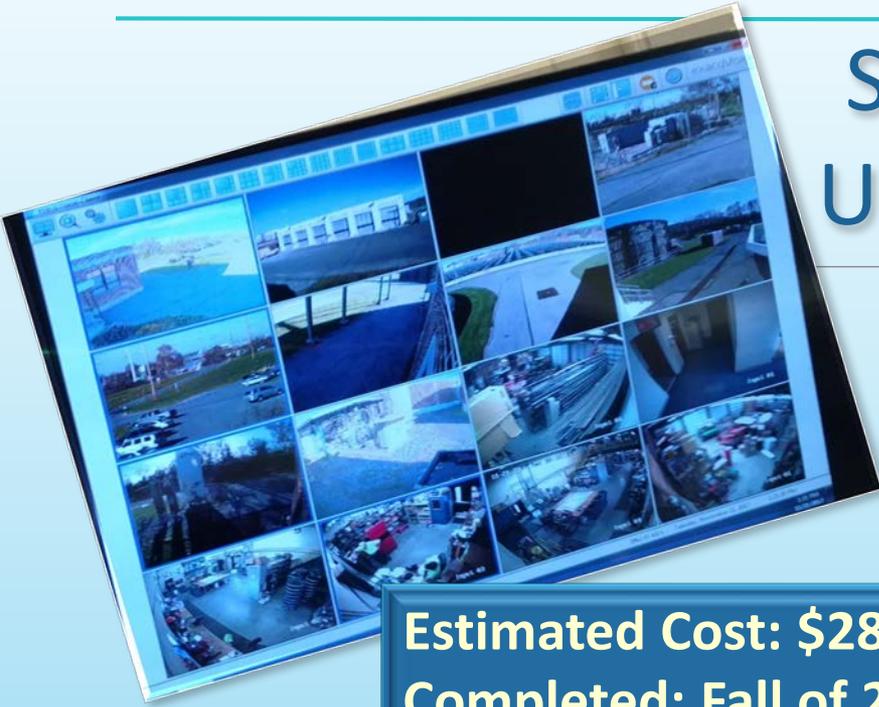
Water Main Replacement

The Pipe Prioritization Assessment Program identifies mains that will need to be replaced using various sources of data: pipe age, break history, geology and ground subsidence history.



Wastewater Treatment Plant Capital Project - 2017

Security Upgrades



Estimated Cost: \$283,000
Completed: Fall of 2017
No Rate-Payer Capital Expense
Category: Uncompleted Work



**Homeland
Security**

**INFRASTRUCTURE SURVEY
SECURITY & RESILIENCE REPORT**

Water Distribution Capital Projects - 2017

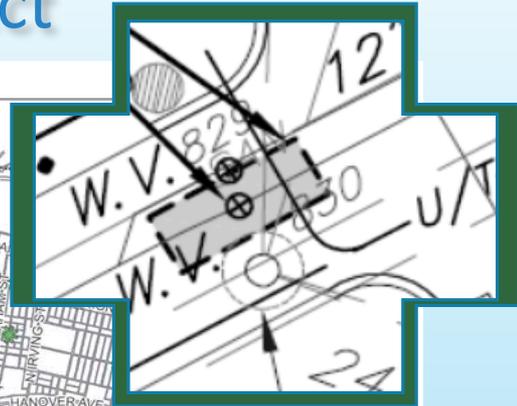
Inoperable Valves Replacement Project

Cost: \$1,110,000

Complete: Summer 2018

No Rate-Payer Capital Expense

Category: Uncompleted Work



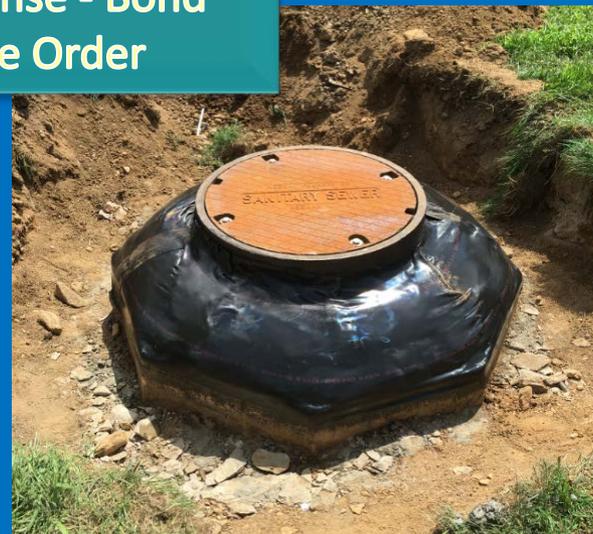
Replacing 55 inoperable valves in multiple locations throughout the City.

Administrative Order Projects - 2017

Sanitary Sewer Manhole Rehabilitation



Cost: \$60,090
Complete: Summer 2017
Rate-Payer Capital Expense - Bond
Category: Administrative Order



10 manhole structures were rehabilitated

QUESTIONS



Happy Holidays

