City of Noblesville Wastewater Utility

Where we have been and a look toward the future

May 9, 2017

Federal Unfunded Mandate

Each project is a federal unfunded mandate by the Environmental Protection Agency and Indiana Department of Environmental Management. This means we are required to do the work, and the costs of these projects rest solely on the utility and its customers.

Long Term Control Plan

* In September 2007, the City of Noblesville entered into an agreed judgment with the Indiana Department of Environmental Management
* It is a 15 year, 5 phase plan
* Estimated total cost of $67 Million

City of Noblesville Combined Sewer Overflow Long-Term Control Plan

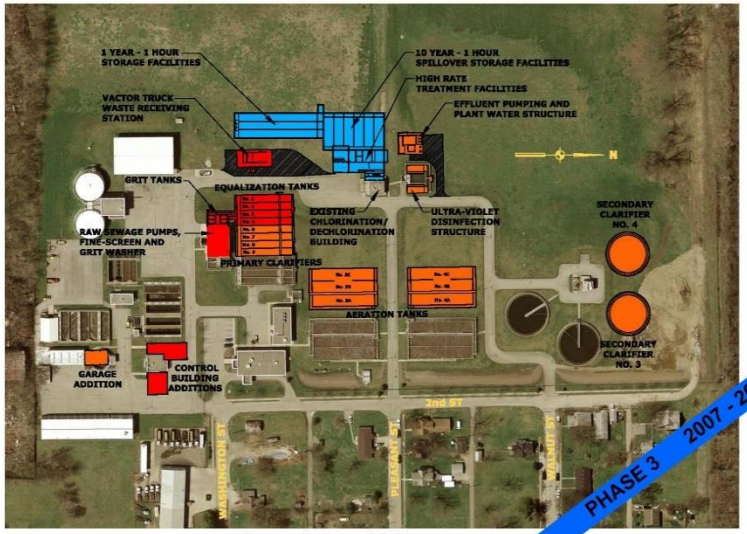
Phase 1
Treatment Plant Upgrades
- Increased capacity at the headworks (screening, grit removal, pumping capacity) from 15 to 30 MGD
- Expanded control building
- Constructed new vactor truck receiving station
- Constructed additional 1 million gallons of wet-weather equalization storage
- $9.3 million

Collection System Upgrades
- Increased flow capacity to the treatment plant by upsizing existing interceptors
- Replaced failed sanitary sewers in North Harbour to decrease the wet-weather flow to the lift stations and treatment plant
- $2.2 million

New Headwork's Screen

New Grit Removal Tanks

New Wet-Weather Equalization Basin (to be Converted to Primary Clarifier in Phase 2)



Phase 1, 2 and 3 Treatment Plant Improvements

PHASE 1 2006 - 2007

Upsized Existing Interceptor

PHASE 2 2007 - 2010

Phase 2
Treatment Plant Upgrades
- Increase average daily flow capacity of the treatment plant (primary secondary clarifiers, and aeration tanks) from 5 to 10 MGD
- Construct new UV disinfection facility to replace the existing chlorine disinfection facility
- $18.2 million

PHASE 3 2007 - 2017

Phase 3
Treatment Plant Upgrades
- Construct additional wet-weather storage facilities
- Construct a high rate treatment facility
- $10.6 million

Collection System Upgrades
- Install large diameter relief sewers to convey wet-weather flow to the treatment plant storage facility
- $13.4 million

Central and East Region Relief Sewer and Riverwalk

PHASE 4 2018 - 2022

Phase 4
Collection System Upgrades
- Decrease wet-weather flow to the treatment plant
- Construct storm sewers in combined areas in North Region
- $7.3 million

North Region Combined Areas and Proposed Storm Sewer Routes

PHASE 5 2022

Phase 5
Collection System Upgrades
- Increase flow capacity of combined sewage to treatment plant
- Install large diameter relief sewer to convey wet-weather flow to the treatment plant storage facility
- $1.7 million

South Region Combined Areas and Proposed Relief Sewer Route

Phase I

* Increased pumping capacity to 30 Million Gallons a Day (MGD)
* Added 1.0 mg of equalization
* Upsized sewers coming into the plant from the CSS.

Estimated cost - $11,310,000 Actual cost - $11,467,000

Phase II

TREATMENT PLANT EXPANSION

* Increased treatment capacity during wet weather from 10.0 MGD to 20.0 MGD
* Converted from chlorine disinfection to Ultraviolet (UV) disinfection.

Estimated Cost – $18.16M

Actual - $18,148,244

Additional Capacity Biosolids

* To keep up with the added waste volume, the utility needed to add capacity to the biosolids treatment.

*Added solar dryers to reduce volume *Added additional sludge digester

* Cost - $9,189,000

Phase III
Division I

* Division I was the Maple Avenue project
  * Estimated Cost - $6,217000 Actual - $8,053,000



Phase III
Division II

* Division II was the construction of a 2.5 million gallon underground storage basin
  * Estimated Cost - $11,400,000 Actual - $8,358,000

Phase III
Division III

* Division III was the Central Conveyance Project (Riverwalk)
  * Estimated Cost - $5,328,000 Actual - $4,888,000

Phase IV

* This phase will consist of multiple separation projects throughout the northern boundary of the CSO basin.
  * Estimated Cost - $5,564,000
  * Construction to begin in June
  * Projected cost is $3,900,000

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ROOSEVELT DR
NORTH ST
N 9TH ST
EVANS AVE
N 12TH ST
N 15TH ST
CENTRAL AVE
N 14TH ST
ANDERSON ST
GRANT ST
N 11TH ST
CICERO RD
N 10TH ST
MONUMENT ST
N 17TH ST
JAMES DR
N 18TH ST
N 19TH ST
MORTON ST
N 12TH ST
HARRISON ST
N 13TH ST
N 15TH ST
WAYNE ST
N 16TH ST
CLINTON ST
LOGAN ST
N 8TH ST
CONNER ST

Phase IV

* The scope of this project is to remove storm water from combination sewers in northern Old Town. Once completed, storm water will flow into a newly installed storm sewer system and out to the receiving streams.
* Currently, the existing storm water mixes with sanitary sewage and flows to the treatment plant through combined sewers. This will improve the drainage along those streets and remove unwanted water into the treatment plant.

THE CITY OF NOBLESVILLE UTILITIES

Phase V

* This phase will include additional storm and sewer line installations from the southern Old Town area to the treatment plant.
  * Targeted Start Date is 2020

Phosphorus Removal

* For the past year, the city performed a Phosphorus Removal pilot in preparation for this project, which removes phosphorus from the wastewater at the treatment plant.

* Phosphorus is a nutrient that passes through the typical treatment process and now must be targeted and removed.

* When phosphorus is in the waterways and streams, it creates excessive algae growth which then cause's algae blooms and robs the water of oxygen – killing fish and creating odorous waters.

Phosphorus Removal

* The treatment process for us to remove the phosphorus requires changes at the plant such as tank modifications, additional piping and equipment and a chemical feed building. The new system will include biological phosphorus removal with a chemical polishing backup.

* The Phosphorus Removal Project will begin construction in late summer 2017.

* Estimated cost is $8,138,800 (which includes air supply system replacement)

Proposed Rate

* In order to continue to pay for the federal unfunded mandated projects, the Utility is requesting a 3-year rate increase of 3.5% on all sewer fees.
* Residential fees:
  * July 2017 - $39.00, increase of $1.32/month ($15.84/year)
  * July 2018 - $40.36, increase of $1.36/month ($16.32/year)
  * July 2019 - $41.78, increase of $1.41/month ($16.92/year)

Since 2007 - a decade span - the Sewer Fee for Noblesville residents has risen a total of $5.80/month.

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