2016 Annual Report

CITY UTILITIES

WATER THAT WORKS

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Utility Advisory Group Members

David Kohli - Chair
Ellen Fox
Beulah Matzak
Bryan McMillan
Billie Rykard*
Ron Smith
Rodney Vargo
Pone Vongphachanh
Dan Wire
Beth Wyatt

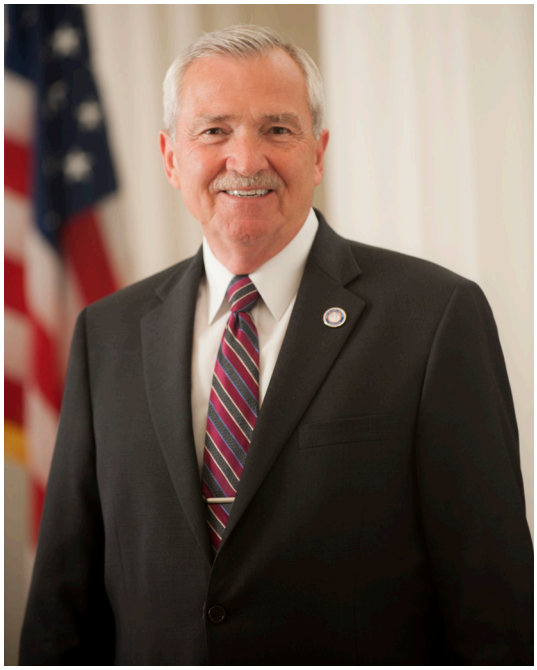
*deceased

Photos on the front and back covers are courtesy of John McGauley

CITY OF FORT WAYNE

THOMAS C. HENRY, MAYOR

The City of Fort Wayne is a nationally-recognized leader in providing award-winning water, sewer and stormwater services. The growth and success that Fort Wayne and northeast Indiana are experiencing are a direct result of the exceptional services provided each day by City Utilities.



Mayor Thomas C. Henry

Successful and thriving cities must have a utility infrastructure that works. Business growth, economic development opportunities, new jobs, population growth and strong neighborhoods are dependent on an affordable and reliable infrastructure system.

The leadership staff and employees of City Utilities are dedicated to meeting the needs of residents and businesses. Through innovate and efficient techniques, our commitment to providing excellent customer service is making a lasting and meaningful difference.

I continue to be encouraged by the momentum and investments taking place in Fort Wayne. With assistance from City Utilities, we've become a point of destination city with quality of life amenities that are desirable for individuals, families and businesses.

This annual report is designed to give you a detailed perspective of how we ensure the highest quality water, sewer and stormwater services are being provided to you.

Thomas C. Henry

Mayor Tom Henry

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CITY UTILITIES

200 E Berry Street, Suite 270
Fort Wayne, IN 46802

CITY UTILITIES
WATER THAT WORKS

Dear City Utilities Customers,

Kumar Menon, Director of City Utilities

As one of the most awarded and recognized utility providers in the country, we at Fort Wayne City Utilities have good reason to be proud of the outstanding customer service and high quality of water that we provide to the more than 300,000 customers we serve.

While we are proud of our numerous awards and distinctions, we are pushing ourselves to serve our customers better and more efficiently than ever. We are currently in the process of implementing many projects that will improve the city's utility infrastructure and thus better serve our customers. During 2016, design work was completed on the sewage collection tunnel known as the Three Rivers Protection and Overflow Reduction Tunnel or 3RPORT. Construction on the project will start in mid-2017.

On the drinking water side, City Utilities continues our commitment to proactively improving our water main system by replacing approximately nine miles of water main pipes each year. The replacement program, which we have ramped up significantly in the past five years, has greatly reduced the number of water main breaks, saving money for our customers and us. Additionally, customers are also seeing an increased return on the investments from the improvements in the reliability of our water distribution system. One of the results of this improvement is that Fort Wayne's fire insurance rating has improved and will soon result in lower insurance costs for home and business owners.

Utilities are important to a city. Good waste water management, stormwater management, and drinking water support a city's public health, safety, and economic development, all of which are our goals at Fort Wayne City Utilities.

As director of Fort Wayne City Utilities, I am very happy to be able to share this report on our outstanding progress over the last year. We look forward to continuing to serve all of our customers with excellent care and contributing to the growth and development of our city's neighborhoods and downtown area.

Kumar Menon

MISSION, VISION & VALUES

Mission

We support public safety, public health, and enhance regional economic development by delivering high quality, affordable water, wastewater and stormwater services, in ways that protect the environment.

Vision

Nationally recognized as a regional utility of excellence.

Values

City Utilities differentiates itself from other utilities with its depth and breadth of experience and knowledge. Its diverse team of experts provides the most comprehensive and accurate approach to water resource management in the region. City Utilities has a long-view approach to providing services in the region and developing talent for the future. These high-quality and affordable services are provided with the environment in mind including investments in energy manufacturing, environmental stewardship, and resource recovery.

CITY UTILITIES

WATER THAT WORKS

GIVING BACK

City Utilities believes strongly in giving back to our local community through various activities. In 2016, City Utilities employees participated in Study Connection, an after-school tutoring program of Fort Wayne Community Schools. This program provides one-to-one tutoring to students that need extra academic help during the school year for one hour a week. City Utilities employees also participated in the 2016 United Way Day of Caring completing service projects at the Trees Indiana Nature Center at Cedar Canyon Elementary School and at the Fort Wayne Police Department's Safety Village.

An employee putting down new mulch.

Employees cleaning up an outdoor classroom.

City Utilities is also proud to partner with Living Water International on mission trips to provide safe, clean drinking water to communities in developing countries. By gaining access to clean water, these communities have improved hygiene and sanitation which increases health, education and economic opportunities. In 2016, City Utilities employees and their families participated in the third mission trip, this time visiting Posoltega, Nicaragua.

Volunteers and citizens celebrating the finished water pump.

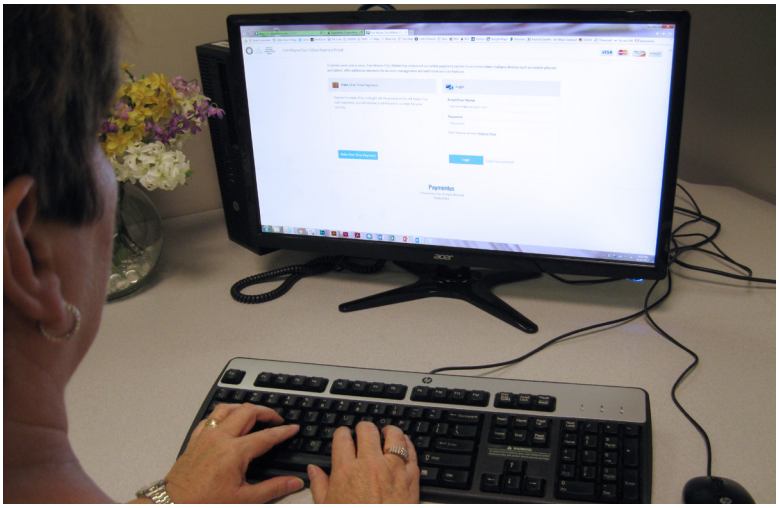
A young boy from Posoltega trying on a hard helmet.

CUSTOMER SERVICE

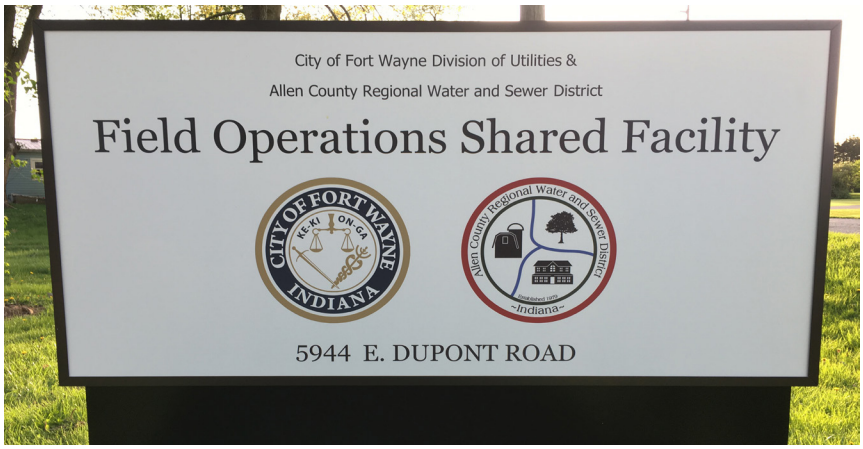
Providing customer choice and convenience are the goals of the City Utilities' Customer Relations Center. During 2016, City Utilities invested in technology upgrades to give customers new options for interacting with City Utilities and to enhance customer account security.

A new customer account management and billing system brought on-line in 2015 set the stage for an upgraded on-line payment portal in 2016. The upgraded payment portal gives customers increased account and payment security and added new choices paying City Utilities bills using direct bank account withdrawal, credit or debit cards. The new system has also allowed City Utilities to install a payment kiosk where customers wishing to make a utility bill payment can serve themselves. This has significantly reduced wait times for customers, especially on the busiest days.

A City Utilities customer using the kiosk.


A City Utilities customer using the new on-line payment portal to make a real-time payment.

As part of a commitment to be a regional service provider and to grow its business to business relationships, City Utilities has begun to provide services to other utilities in the region. In 2016, City Utilities began providing billing and account management services, engineering assistance, financial management assistance, payroll and human resources services, and preventative maintenance services to the Allen County Regional Water and Sewer District. Using City Utilities as a service provider has allowed the District to focus more on its primary mission: extending public sewers to areas with failing septic systems.



The sign of the shared field office of City Utilities and the Allen County Regional Water and Sewer District.

OUTREACH & EDUCATION

City Utilities works hard to reach out to stakeholders and provide timely and accurate information to customers. Outreach and education efforts help ensure that our products, service levels, operations and financial plans are implemented in ways that balance the interests of stakeholders, City Utilities' obligations to fulfill regulatory requirements, and our shared responsibilities as stewards of public infrastructure and the environment.

2016 marked the 20th anniversary of the creation of the Utility Advisory Group (formerly Sewer Advisory Group), a group of citizen volunteers who facilitate two-way conversations between City Utilities and residents of Fort Wayne. The group formed after heavy rains in the summer of 1995 caused community outrage over the number and severity of backups into homes from the combined sewer system. The UAG assisted City Utilities in prioritizing neighborhoods for investment in sewer upgrades and lobbied residents and the Fort Wayne City Council to support sewer rate increases necessary to fund the investment of nearly $100 million in neighborhood sewer projects. After 20 years the group remains active and now assists City Utilities in developing programs and initiatives in all three utility areas: drinking water, wastewater and stormwater management.

Public education and involvement features prominently into City Utilities' residential rain garden program. Free workshops provide property owners with everything they need to create a rain garden – an area landscaped with native plants designed to help stormwater runoff soak into the ground. While learning about landscape design and plant selection, property owners learn a little bit about Fort Wayne's combined sewer system and some of the sources of stormwater pollution and leave with a greater appreciation for what residents can do to improve water quality.

Stacy Haviland, City Landscape Architect, conducts a rain garden workshop.

Deputy Director - Operations, John Clark, gives customers a tour of the Three Rivers Filtration Plant.

Openness and transparency are the watchwords of City Utilities' communication efforts. Staff members interact with residents and customers at between 60 and 75 events each year including community fairs, festivals, forums and trade shows as well as at project design meetings, Meet the Contractor events, facility tours and open houses organized by City Utilities. In addition to the one-to-one communication offered at these events, City Utilities maintains an active social media presence and uses traditional media relations and publications to inform, educate and involve.

SUSTAINABILITY

City Utilities is committed to seeking cost-effective and practical ways to use renewable energy sources in order to reduce energy costs and lower greenhouse gas emissions. Methane produced during the treatment of wastewater being used to power and heat portions of the Water Pollution Control Plant. In the first year of the program, from October 2015 to October 2016, the plant reduced energy consumption by 30.6 percent, saving $420,000 in electric bills. In that same period, City Utilities reduced greenhouse gas emissions by 167,000 tons per year and reduced the plant's carbon footprint by 232,000 tons per year.

Engine Generators at the Water Pollution Control Plant use methane gas as fuel to generate electricity.

In December 2016, Fort Wayne City Council approved a five-year agreement between City Utilities and Nestle's Anderson ice cream plant to accept high-strength waste. This new contract will have a $300,000 positive annual impact through profits from tipping fees and energy cost reduction due to the additional methane produced. City Utilities continues to look at additional opportunities to increase methane production with the goal of a negligible power bill.

CatchingRain FortWayne
Green Infrastructure Initiative

Since 2009, City Utilities has been promoting the use of rain gardens as part of the greener approach to stormwater. The garden holds rain water for up to a day allowing the water to slowly infiltrate into the ground. Rain gardens have several benefits: they can reduce the amount of runoff going into the City's old combined sewer system. This can mean less sewer backups and less sewage discharged to the rivers. In areas where sewers carry stormwater only, rain gardens can help reduce erosion so less sediment goes into the storm sewers. And because stormwater receives no treatment before it goes into a pond, stream or river, rain gardens can help reduce pollutants in our water ways by filtering some of the stormwater before it gets into the storm sewer.

A rain garden's native plants soak in stormwater and reduce runoff.

Residents are using rain gardens to manage stormwater on their property.

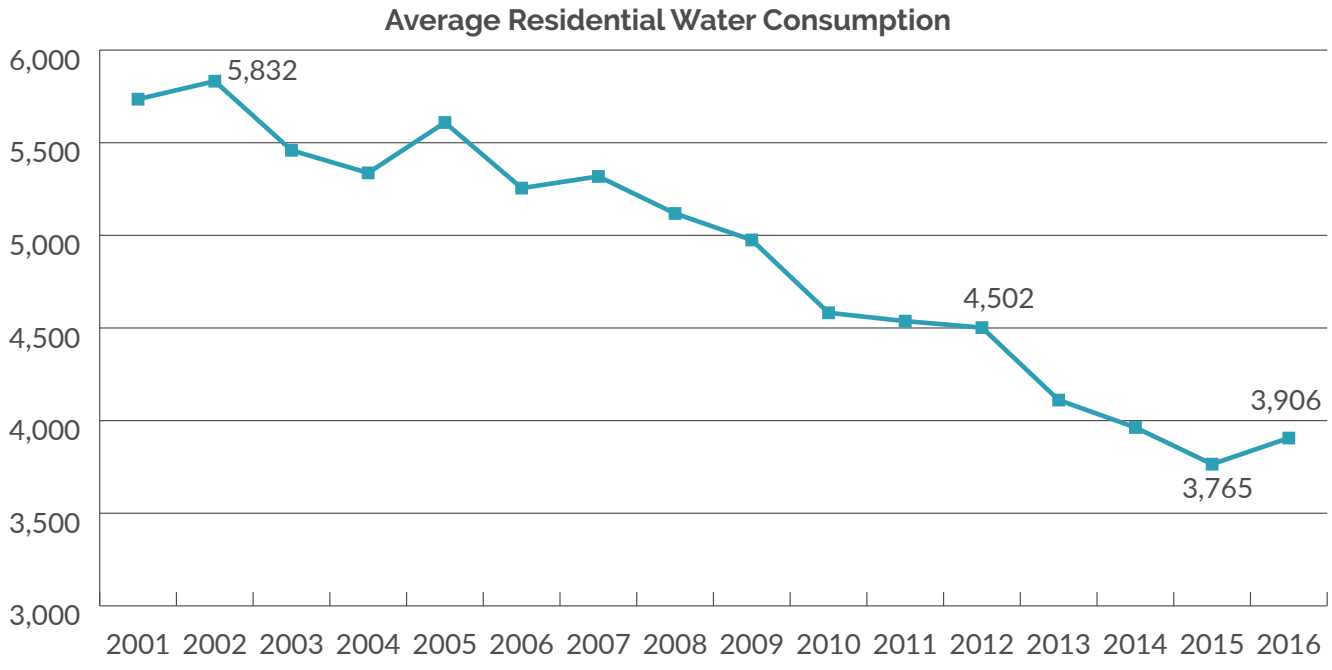
FINANCIAL RESILIENCY

City Utilities has effectively and creatively managed its debt load, which, like many other utilities, has faced pressure from unfunded federal mandates. Through strategic financial management with a focus on financial resiliency, stability, and economic growth to achieve long-term sustainability, we have maintained an investment grade bond rating across all utilities.

In 2014, through effective long-term planning and stakeholder engagement, the Mayor and City Council adopted a five-year rate plan. This plan not only allowed City Utilities to appropriately plan for long-term investments, but provided predictability to customers and to the bond markets. Moreover, it provided the utility with the flexibility to react to advantageous changes in the lending markets. This flexibility provided additional value to our customers when it was approached by the State Revolving Fund in early 2016, which was seeking a borrower able to take over $100M at two-percent interest. Further, it has allowed City Utilities to maintain rates below projections while accelerating its program to reduce combined sewer overflows by taking advantage of a favorable bidding environment and net present values.

City Utilities protects its investments through a comprehensive asset management program, constantly monitoring pipe attributes and conditions and proactively incorporating strategic asset replacement into the Capital Improvements Program. Consequently, City Utilities has halted a trend of increasing rates of water main breaks. Similarly, City Utilities' asset management efforts have allowed it to reduce sewer rehabilitation costs by providing data necessary to prioritize rehabilitation of entire neighborhoods, rather than individual pipe segments.

Due to their extensive pipe networks, utility systems are challenged by heavy fixed costs. As appliances become more efficient and household sizes decrease, upward pressure is placed upon rates. In just the past five years, our average residential customer has reduced water consumption by 13 percent. In response, City Utilities is actively protecting its customer base through participation in local economic development efforts – particularly through identifying and attracting high-volume water and sewer users by marketing our abundant, high quality water resources. Through these efforts, City Utilities helped attract a new 250,000 square feet milk processing facility, which will be one of the largest in the nation.



DRINKING WATER

City Utilities' proactive water main replacement program is showing results. Over the last four years, the average water main break rate has decreased by about 22 percent compared with the previous ten years. Since 2012 City Utilities has been able to increase its annual investment in proactive water main replacement thanks to a water rate increase approved that year. City Utilities now replaces an average of nine miles of public water mains each year -- water mains that have a high main break history or have a high risk for a break.

Workers connecting mains as part of the Bass Road Water Main Extension.

City Utilities uses data such as pipe material, year of installation and past break history to determine which neighborhood water lines are most likely to fail so those can be prioritized for replacement. Currently the water main replacement program focuses on water lines in neighborhoods because they are some of the oldest and most likely to break. Once the high priority neighborhood mains are replaced, City Utilities will need to begin to replace transmission mains – the large pipes that carry water to the various sectors of the service area.

2016 Accomplishments

Three Rivers Filtration Plant

- No Drinking Water Quality Violations due to Operator Error
- Received the Directors Award for Partnership for Safe Water for the 16th consecutive year
- Improved the reliability of the Southwest Pump Station and meet increased customer needs/ demand
- Succession planning for critical positions and overtime reduction due to availability of additional trained personnel
- Improved response time to issues customers bring to the Utilities attention

Water Maintenance

- Implemented new iPad based locate system taking over sewer locates without more manpower
- Implemented new iPad based system for Fire Hydrants and Valves improving data collected
- Reduced the number of second trips on service calls
- Took on several capital projects, saving the Utility thousands of dollars
- Worked closely with partners to reduce the back log of restorations

Featured 2016 Construction Project

Rudisill Warsaw Water Main Replacement

Project Scope: Replacement of 19,805 linear feet of 6 inch water mains, including 36 fire hydrants, 31 valves, and 561 services.

Project Benefits: Improve the distribution system by replacing water mains that have a high break rate, decreasing inconvenience to water customers. This project area has had 201 water main breaks.

Project Investment: $2,084,660.00

Construction Started: May 24, 2016

Projected Final Completion Date: June 30, 2017

New hydrant installed as part of the project.

SEWER

City Utilities' sewer rehabilitation program is essential to maintaining an aging infrastructure of over 1,300 miles of sewers. Using data such as pipe age, condition, capacity, and difficulty of access, City Utilities staff can identify pipes that need be rehabilitated with a lining before failure occurs. By proactively identifying and rehabilitating pipes, City Utilities is saving money as replacing failed sewer pipes through excavation is nearly eight times as expensive as lining pipes. Since 2008, City Utilities has averaged rehabilitating 1.4 percent of the entire sewer system each year, exceeding the industry standard for municipalities of 1.0 percent system rehabilitation.

The Water Pollution Control Plant.

2016 Accomplishments

Water Pollution Control Plant

- Received the Silver Peak Performance Award
- Designed and built High Strength Waste receiving station allowing high strength waste to be accepted to produce methane
- Began transitioning to LED lighting to save on electricity costs
- Rebuilt mulch drop off area at Biosolids improving customer access

Sewer Maintenance

- Left one Night Investigator position unfilled when vacated, reorganized work flows using existing positions
- Did not fill the Wet Weather Operations Coordinator position when vacated, combined duties into existing position job description

Featured 2016 Construction Project

Rothman and Tamarack Capacity Improvements

Project Scope: Lining sewer pipes in the Rothman & Tamarack area to improve inflow and infiltration issues and rehabilitate deteriorating pipes.

Project Benefits: Currently high amounts of inflow and infiltration are entering the system in these areas, adding cost to treat and also greatly lowering our capacity in this system. This project installs a liner in pipes to repair the pipe structurally and also to prevent infiltration during wet weather events. A liner will proactively repair the pipe before a complete collapse occurs, which saves money and limits disruptions to property owners. This project is to protect homeowners and the environment from overflows.

Project Investment: $738,924.80

Construction Started: October 25, 2016

Projected Final Completion Date: August 18, 2017

Workers line sewer pipes in the Rothman and Tamarack area. Sewer lining extends the life of a pipe by 50 to 75 years.

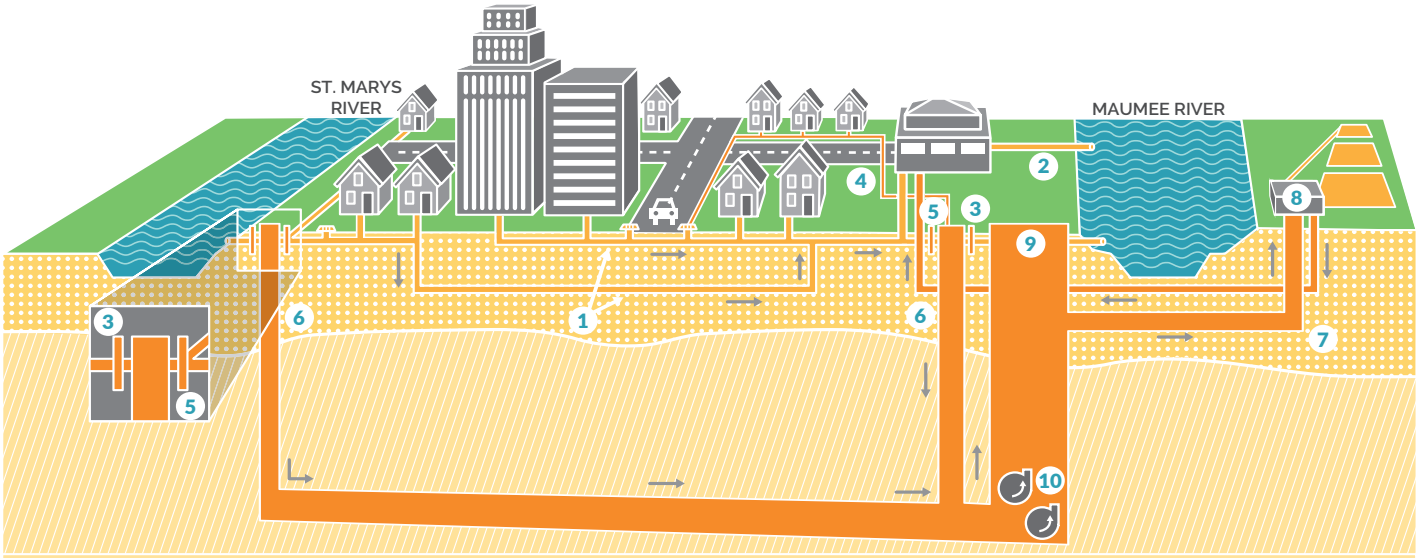
LONG TERM CONTROL PLAN

During 2016, design work was completed on the biggest infrastructure project City Utilities will ever undertake, a five-mile long deep rock sewage collection tunnel known as the Three Rivers Protection and Overflow Reduction Tunnel or 3RPORT. The tunnel and the accompanying connector sewers and drop shafts are the culmination of the City's long term plan for reducing discharges of combined sewage to our rivers by 90 percent. Construction on the project is expected to begin in mid-2017. When it is complete, the tunnel will collect combined sanitary sewage and stormwater runoff that would otherwise be discharged into the Maumee and St. Marys rivers during wet weather. The combined sewage will be transported to the sewage treatment plant where it can be stored until the plant has the capacity to provide full treatment.

Although City Utilities began implementing the Long Term CSO Control Plan in 2008, the tunnel project was planned for the latter half of the plan's implementation so that it could take advantage of projects to increase capacity at the sewage treatment plant. Since 2008, more than $50 million has been invested to increase treatment plant capacity from 65 million gallons per day (MGD) to 100 MGD.

Customers are encouraged to visit cityoffortwayne.org/utilities/tunnel-works for project updates and information on neighborhood meetings and public events.

How the Tunnel Works



1. Existing combined sanitary and storm sewers carry wastewater to sewage treatment plant during dry weather
2. Treated water discharges to the river
3. Regulators release untreated combined wastewater to river; releases reduced by 90% after tunnel construction
4. New sewers consolidate and direct wastewater to drop shafts
5. Regulators direct wastewater into drop shafts during heavy rain
6. Drop shafts direct combined wastewater to tunnel to lessen overflows to rivers
7. When tunnel fills, siphon directs wastewater in tunnel to ponds for temporary storage
8. Combined sewer pump station directs wastewater from tunnel to temporary storage ponds and sends stored wastewater to sewage treatment plant when capacity becomes available
9. Working shaft allows tunnel boring machine to enter the ground
10. Dewatering pumps help lift wastewater from the tunnel to ponds or sewage treatment plant

Not to scale

STORMWATER

The stormwater utility is instrumental in protecting public health and safety in the City of Fort Wayne, ensuring that public property is protected and providing infrastructure to manage rainwater runoff and melting snow. From 2008 to 2016 City Utilities has reduced street flooding and protected 28,125 homes from basement backups. To be able to invest in needed infrastructure, City Utilities requested approval to increase stormwater rates for the first time since 2006 beginning July 1, 2017. Fort Wayne City Council approved the three phase rate plan which will allow City Utilities to invest $40 million in stormwater infrastructure improvements. More than 30 large projects throughout the city have been identified that will be completed with the new funding.

Workers making stormwater improvements to Mardego Hills.

Featured 2016 Construction Project

The completed relocation of the stream.

Beckett's Run Stream Relocation

Project Scope: Relocating approximately 3,000 linear feet of Beckett's Run stream channel through the construction of a new channel with associated plantings, wetlands and armoring, installation of approximately 100 linear feet of 10 inch sanitary sewer and the abandonment of existing sanitary siphons, installation of approximately 400 linear feet of 16 inch water main, construction of a bridge in Salomon Farm, installation of underdrains, and abandonment of the existing Beckett's Run channel adjacent to Till Road.

Project Benefits: Beckett's Run along Till Road currently causes washouts with the roadway, eroding the road away. The stream is currently so close to the edge of pavement that a proper road shoulder and guardrail cannot be installed. The goal of the project is to move Beckett's Run away from the road and into the park. The relocation of the stream will allow the roadway to be improved in the future and will provide better safety for travelers on Till Road.

Project Investment: $2,317,971.06

Construction Started: January 20, 2015

Final Completion Date: November 4, 2016

2016 ACCOLADES

ASSOCIATION OF METROPOLITAN WATER AGENCIES

Platinum Award for Utility Excellence

Peak Performance AWARDS

Silver Award - P.L. Brunner Water Pollution Control Plant

SUSTAINABLE INDIANA 2016

Green Light Legacy Hall of Fame
Fort Wayne Rain Garden Program
Water Pollution Control Plant Methane Project

PARTNERSHIP FOR SAFE WATER

Directors Award - Three Rivers Filtration Plant

ASCE INDIANA SECTION

Indiana Chapter of the American Society of Civil Engineers
Mark Gensic - Professional Practice Ethics and Leadership Award

The historic Water Filtration Plant has served the community since the 1930's. Today, after multiple expansions, the plant is capable of producing up to 72 million gallons of water per day.

The Water Pollution Control Plant opened in the 1940's. The plant has grown to meet the needs of the community and today, is able to treat 100 million gallons of sewage per day.