



# Purely Resourceful

2019 YEAR IN REVIEW



# WRC

WATER RESOURCES COMMISSIONER

*Jim Nash*



# *five reasons we're purely resourceful*

We collaborate with communities across Oakland County and throughout the region to maintain safe, reliable drainage, water and sewer systems.

**HERE ARE THE FIVE OUTCOMES WE'RE WORKING TOWARD:**



**Protect public health and safety**



**Preserve natural resources and a healthy environment**



**Maintain reliable, high-quality service**



**Ensure value of investment**



**Contribute to economic prosperity**





# Sometimes, you must think differently.



We're approaching everyday challenges with different thinking.

You might say it's become normal business operations for my staff and me.

After all, we have major challenges ahead. We're more focused than ever on protecting public health and natural resources while contributing to our region's economic prosperity.

Communities around the nation – like ours – are faced with aging drainage, water and sewer systems. Many of these systems are beyond their useful life; it will take tens of millions of dollars to replace them.

What if we could rethink the solutions? What if we found innovative ways to secure the future of your drainage, water and sewer services?

What if we wanted to make sure water would be pure and refreshing for your great-great grandchildren – many years into the future?

That takes a new energy, a willingness to look beyond yesterday's solutions and toward innovative, advanced technologies.

One example is building a water resource recovery facility that recovers energy while treating wastewater to make it safe to be released back into our river and stream ecosystems.

Another example is partnering with state officials to reduce freeway flooding by managing and operating a pump station for a 25-million-gallon underground storage tunnel beneath I-75.

We're thinking differently here, while continuing to maintain reliable, high-quality service. Read on to discover how we're being Purely Resourceful, for you.



  
JIM NASH

# Turning *refuse* into revenue

CLINTON RIVER WATER RESOURCE RECOVERY FACILITY



## CHALLENGE

Adopting new technology to protect regional resources

LIFESPAN  
**40+**  
YEARS

## INVESTMENT

**\$35**  
MILLION

## OUTCOME

New facility with energy-generating capability

Life on the Clinton River isn't just serene, it's perfectly mesmerizing because of the countless plants and animals populating the habitat along the waterway. Yet, we rarely think about the behind the scenes infrastructure that quietly protects the river.

Now, the Clinton River Water Resource Recovery Facility in Pontiac will get an incredible update, modernized with next-generation technology that will generate energy from the waste.

The new facility will be the third of its kind in the nation – and the first in Michigan – to use the emerging

technology of Thermal Hydrolysis Pretreatment. These improvements provide opportunities for renewable energy to generate future savings or even revenue.

With continued advanced treatment technologies, we're converting materials in wastewater to energy and ensuring that what is released protects the habitat along the waterway. That's the environmentally friendly objective of our focus on the Clinton River.

This new technology is an example of how we're using cutting-edge thinking to turn waste into energy – while protecting our regional resources.



# Investing in I-75 drainage/flood protection

PARTNERSHIP WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION

## CHALLENGE

Prevent I-75 flooding while improving water quality

MDOT  
INVESTMENT

**\$200**  
MILLION

LIFESPAN

**50+**  
YEARS

## OUTCOME

Protecting water quality and promoting highway safety

Regional collaboration often leads to greater efficiencies and more innovative solutions. In this case, it might keep boats off I-75 as well.

Southeast Oakland County and the surrounding communities were soaked with up to six inches of rain in just three hours on August 11, 2014. The storm overwhelmed drainage infrastructure and turned I-75 into an urban lake. At one point, first responders were forced to use boats to navigate the highway in search of stranded motorists near the I-696/I-75 interchange.

Out of that experience came a solution that can only be described as Purely Resourceful.

It's a partnership between our office and MDOT. A 25-million-gallon, four-mile long stormwater storage tunnel underneath I-75 and a state-of-the-art pump station will be constructed by MDOT. We will operate this latest-generation pump station to transport I-75 runoff for treatment.

And that's not all. Capturing I-75 runoff in the tunnel prevents stormwater from entering the local storm drains, resulting in additional capacity for the surrounding communities' infrastructure.

The results? Reduced chance of flooding, greater capacity for local systems and improved water quality. That's the beauty of partnering with MDOT and regional stakeholders for this innovative solution.

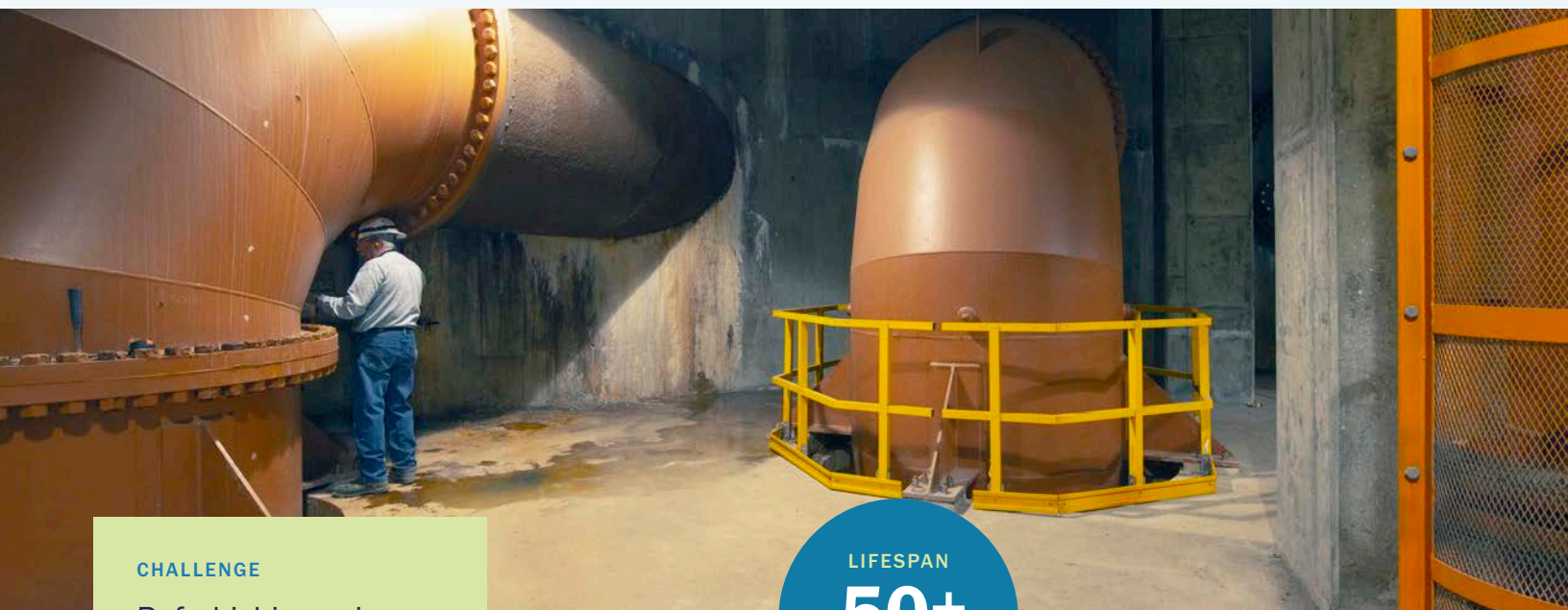


*different thinking*

*Embracing regional partnership  
to preserve natural resources*

# The innovation of collaboration

OAKLAND-MACOMB SEWER INTERCEPTOR SYSTEM AND PUMPING STATION



## CHALLENGE

Refurbishing aging infrastructure that's 100 feet underground

## LIFESPAN

**50+**  
YEARS

## INVESTMENT

**\$35**  
MILLION

## OUTCOME

Maintain reliable, high-quality service

It takes more than a village to rehabilitate a 50-year-old sewage system that can last another 50 years.

It takes a region, driven by innovative thinking and smart collaboration.

That's why our office offered to lead this project, partnering with the Macomb County Public Works Commissioner's Office and the Great Lakes Water Authority (GLWA) in what has become a tremendous collaborative effort.

Once refurbished, the facility will provide dependable sewer service throughout the region.

These updates already are in progress and feature the latest technology available, which includes replacing aging pumps with energy-efficient models and rehabilitating pipe to extend the sewer life for several decades. These, and some of our other innovative restoration methods, have been nationally recognized.

This regional partnership ensures decades of reliable service to residents and business.



# The power of regional thinking

EVERGREEN-FARMINGTON SEWAGE DISPOSAL SYSTEM

## CHALLENGE

Protect the environment

## INVESTMENT

**\$80**  
MILLION

OVER THE NEXT  
5 YEARS

## LIFESPAN

**50+**  
YEARS

## OUTCOME

Preserve natural  
resources and a  
healthy environment

There's power in thinking differently. That's especially true when you're able to draw on the expertise of regional partners for mutual benefit.

That's our approach with the Evergreen-Farmington Sewage Disposal System. Through regional collaboration, we plan to secure additional capacity that will help manage excess rainfall. Excess flow would be directed downstream and into the Great Lakes Water Authority (GLWA) system rather than storing it locally.

This innovative thinking reduces the need to build and maintain additional costly infrastructure.

While our regional partners work on finalizing a solution, we have already implemented real-time monitoring, allowing for "live" management of facility operations during heavy rainfall.

Now that's real-time dynamic operation.



*different thinking*

*Real-time dynamic operations*



## Pollution Hotline

24-HOUR POLLUTION HOTLINE



(248) 858-0931

As part of Oakland County's Illicit Discharge Elimination Program, the WRC provides a 24-hour hotline for the reporting of pollution in Oakland County.

Call the Pollution Hotline at (248) 858-0931, to report any suspicious discharges or illegal dumping of pollution into storm drains, lakes, creeks or streams.

## Emergency Line

24-HOUR WATER AND SEWER  
EMERGENCY LINE



(248) 624-6366

## Financials

2019 EXPENDITURES

To review our financial reports, please visit  
[www.oakgov.com/WRCYearInReview](http://www.oakgov.com/WRCYearInReview)



## Career Information

EXCITING CAREER OPPORTUNITIES AT WRC

Are you looking for a career opportunity where you can make a difference? Have you ever thought about a career in the water industry? We offer a variety of opportunities in areas like:

- Business Support Services
- Engineering
- Inspection
- Operations & Maintenance
- Stormwater Management

**Check out the current WRC job listings!**

Visit [www.oakgov.com/jobs](http://www.oakgov.com/jobs) or call (248) 858-0530

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