DOWNRIVER UTILITY WASTEWATER AUTHORITY
THIRD YEAR IN REVIEW

CALENDAR YEAR 2021

OHM
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INTRODUCTION

DUWA has now completed its third full year of ownership since taking over from Wayne County. These annual reports provide an opportunity to reflect on the accomplishments over the past year and to look forward towards upcoming challenges. Year 3 is most notable for the large amount of construction improvements that were implemented so rapidly after discovering the significant number of deferred system needs as DUWA took over the decision-making role. More impressive is that these improvements were implemented while still in the midst of the COVID-19 pandemic and while maintaining the "rate neutral" promise of limiting rate increases.

DUWA MEMBER COMMUNITY	PRIMARY COMMISSIONER	ALTERNATE COMMISSIONER
City of Allen Park	Gail McLeod, Mayor	Felice (Tony) Lalli, Mayor Pro Tem
City of Belleville	Kerreen Conley, Mayor	Rick Rutherford, DPW Director
Township of Brownstown	Bill Turner, DPW Director	Patrick Kilian, Council Member
City of Dearborn Heights	Bill Bazzi, Mayor	Ali Dib, City Engineer
City of Ecorse	Dave Flatten, Former Interim City Administrator	Eugene Anderson, DPW Director
City of Lincoln Park	James Krizan, City Manager	Lisa Griggs, Director of Finance & Operations
City of River Rouge	Michael Bowdler, Mayor	Richard Marsh, City Administrator
City of Riverview	Doug Drysdale, City Manager	Dean Workman, Council Member
City of Romulus	Roberto Scappaticci, DPW Director	Robert McCraight, Mayor
City of Southgate	Joseph Kuspa, Mayor	Dustin Lent, City Administrator
City of Taylor	Tim Woolley, Mayor	Ralph Richard, DPW Director
Township of Van Buren	Kevin McNamara, Township Supervisor	Todd Saums, DPW Director
City of Wyandotte	Todd Drysdale, City Administrator	Greg Mayhew, City Engineer

THIRD YEAR MAJOR HIGHLIGHTS

1. At the end of 2021, the Downriver System has achieved 37 consecutive months of NPDES permit compliance.

2. Accomplished another year of strong financial performance while meeting the 'rate neutral' goal established during system transition planning. This was particularly important for continuing to create the positive performance record as detailed to the financial rating agencies. This will help to make the case for lower interest rates for future financing needs.

3. Despite supplier challenges due to COVID, our key capital improvement projects are on-track for completion of critical milestones by the end of 2021. More detailed descriptions for each project are as follows:

   A. The new SCADA (automated data collection and control) was completed in September 2021. This system allows us to break away from the Wayne County SCADA system and implement our own independent standards for key issues, such as cyber protection, real-time data sharing, and analyses of data to optimize performance.
   B. The alkali sewer rehabilitation project was completed, which restores structural integrity to one of our major interceptor sewers. Although this problem was first uncovered in 2012, the project was not authorized until DUWA took over the system and committed to addressing this high-risk potential for failure.
   C. DUWA's signature project, the biosolids dryer facility, is expected to be substantially complete early in 2022. This project addresses a long-term need for beneficial reuse of the biosolids, addresses the increasingly unavailable option of directly landfilling un-stabilized biosolids, and creates a cost-effective solution that is affordable for our rate payers. COVID driven supply chain issues resulted in

3.A – New SCADA System Installed

3.B – Alkali Sewer Rehabilitation Completed

3.C – Biosolids Dryer Facility in Progress

THIRD YEAR MAJOR HIGHLIGHTS - CONTINUED

several delays in obtaining needed parts. However, the construction team work diligently to find solutions and maintain the final completion in early 2022. The unique financing using the federal WIFIA program, the first in Michigan and the first for a facility with privatized operations and maintenance, has resulted in a very favorable interest rate (1.730%) that is financed over the life of the project (36 years), minimizing the rate impact.

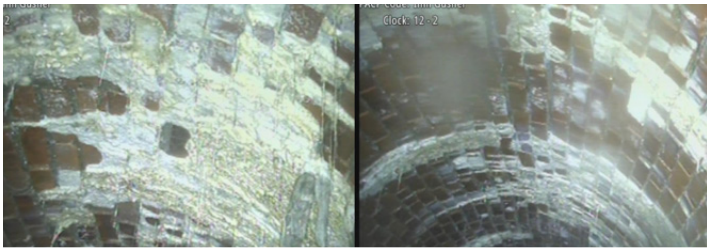
D. The short-term capital improvement/ asset maintenance program established last year ($1.9 million annually) implemented several critical improvements, including emergency repairs of pipes at the wastewater treatment facility (WWTF), rehabilitation of a major sewer with significant leaks under I-75 while the problem was still manageable, repair and/or replacement of several roofs at the WWTF that had reached the end of their useful life, and replacement of equipment that had failed or were requiring an inordinate amount of maintenance.

E. Blending Reduction Control Measure A, which adds 10% additional secondary treatment capacity by optimizing the existing facilities, was implemented. This was primarily implemented using Veolia's maintenance staff to minimize construction costs. An evaluation over the next several years will determine how effective these improvements have been at achieving the State's goal of minimizing blending (secondary bypass) events.

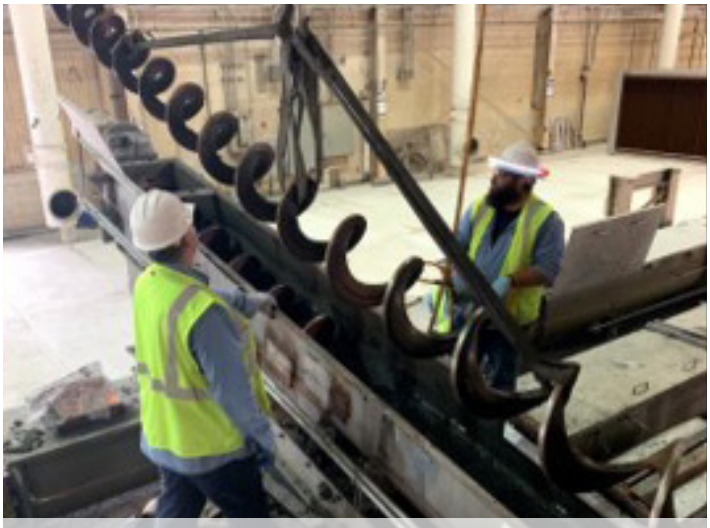
F. Upgrading the flow metering equipment was initiated by Veolia to improve the efficiency of the program. It also provides the opportunity for members to obtain flow and depth data in the sewer system in near real-time. This is particularly important during large rain events.

4. The difficult task of developing a new Rate Methodology was initiated by hiring the nationally recognized firm of Raftelis to guide us through the process. The existing methodology was developed many years ago and Wayne County had no information

3.D – Screened Final Effluent Water Line Break & Emergency Repair



3.D – Interceptor Inspection Revealed Infiltration Runners



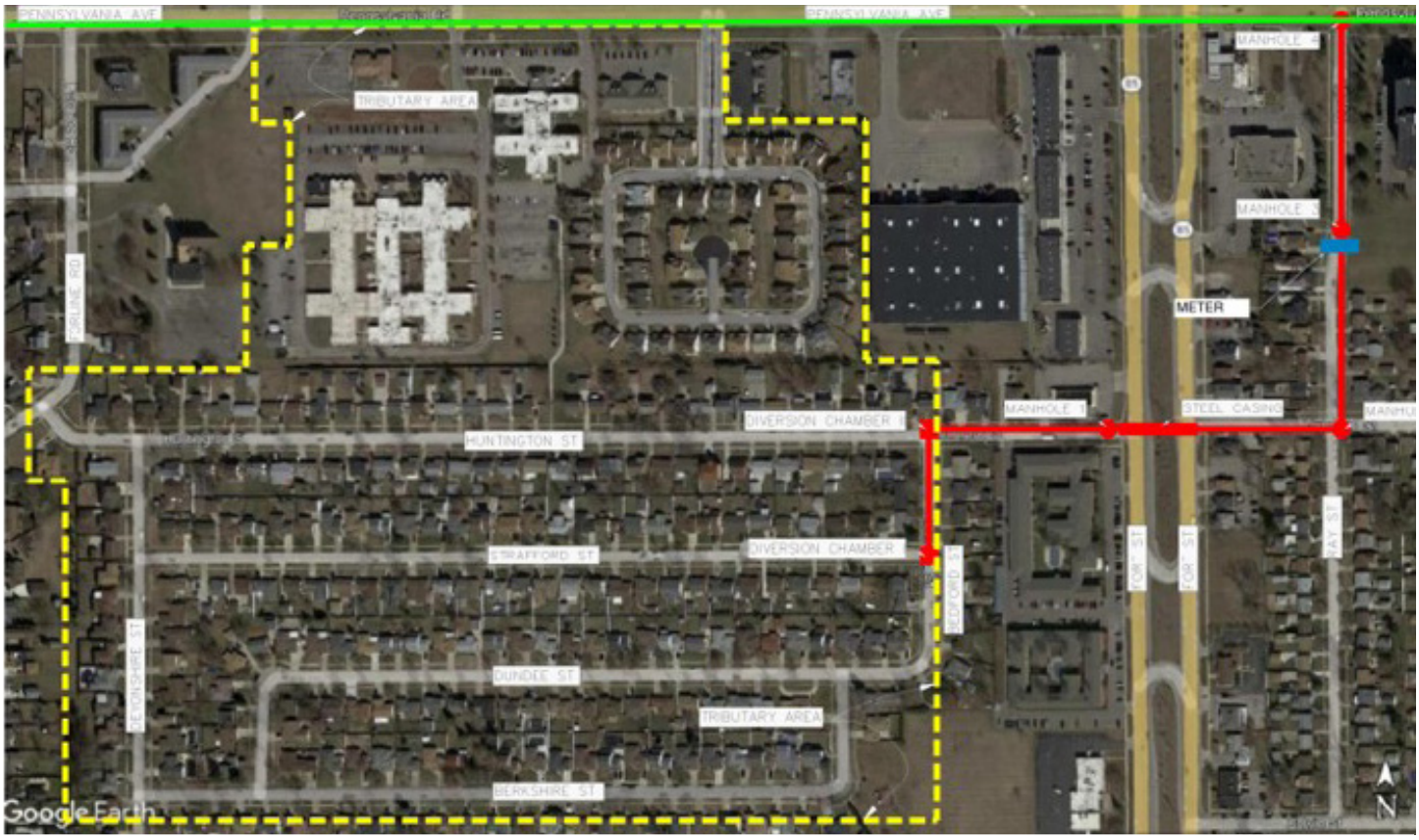
3.D – Shaftless Screw Repair at Preliminary Treatment

THIRD YEAR MAJOR HIGHLIGHTS - CONTINUED

available on the reasoning for the details in these procedures. The existing methodology was evaluated and suggestions for revised procedures were provided by Raftelis. The new methodology makes much better use of the flow metering data that was already being collected by DUWA. Initial impacts were estimated in December and further work is being done to develop a good understanding of the methodology and refine the numbers used in the analyses.

5. Recognizing the negative impact that basement back-ups have on our customers, DUWA and the communities jointly worked on an action plan for addressing existing system limitations, both local and regional. A list of recommended actions was developed, and initial implementation steps were undertaken in 2021. This included local flow metering programs by Allen Park and Ecorse to help understand the flows being generated within their local systems. Riverview pursued a relief sewer to serve a neighborhood experiencing flooding problems. Since their cost-effective alternative required a new connection to the regional tunnel, DUWA worked cooperatively with Riverview and the other communities to evaluate the connection. An agreement for moving forward with the project was agreed to by the DUWA Board and Riverview.

6. The Southeast Michigan region experienced a number of very large rain events from June through October in 2021. Many believe that this is due to climate change impacts and that such extremes will become more frequent. Thankfully, the Downriver area did not experience as high of rain amounts as the areas north and east of us. These rain events caused some flooding issues for some of our customers, but the extent was less than some past events. The Downriver Wastewater Treatment Facility (DWTF), had to bypass flow around certain treatment units, which is called blending, to maximize the amount of

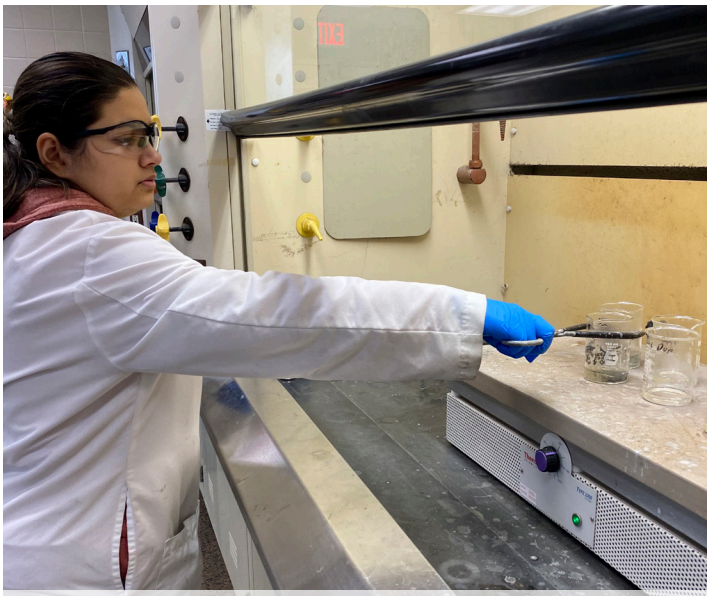


5. – Riverview Relief Sewer Connection to Regional Tunnel to Mitigate Basement Backups

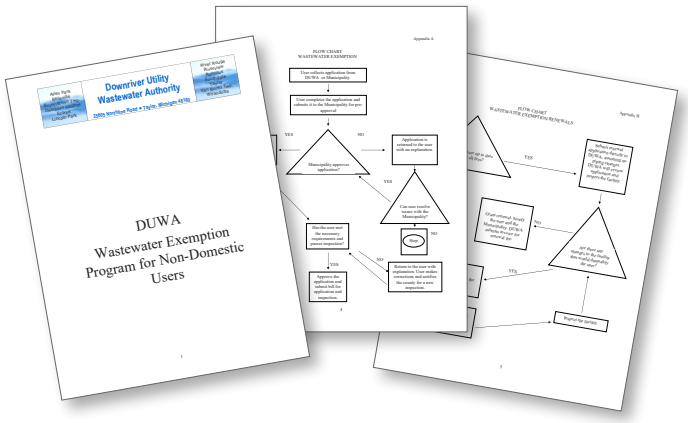
THIRD YEAR MAJOR HIGHLIGHTS - CONTINUED

flow treated. This is permitted by our permit and all flow discharged to the Detroit River meets our effluent quality requirements. We experienced six such blending events in 2021, the highest annual number since DUWA took over the system. Our permit established a goal of limiting the number of blending events to six per year. The improvements implanted in 3E above will hopefully further reduce the number of events experienced.

7. A number of programmatic updates and/or studies were completed. Although the results are not as dramatic as seeing completion of a new construction project, these tasks can be very impactful in making sure the system is performing optimally. Examples are as follows:
   A. Completion of a Vulnerability Assessment Study to provide information about how historically high Great Lakes/Detroit River levels may impact the facility and to determine if any mitigating measures are needed. The results indicate that some impacts can be expected, but no structural modifications are needed at this time.
   B. Sampling and evaluations for the new pollutants of concern, PFAS/PFOA, have been occurring. The next step, a Local Limits Study was initiated to add these parameters into the Industrial Pretreatment Program requirements. Several industrial customers have complex systems that are covered by several entities, such as GLWA and EGLE. Coordination with these entities was initiated to make sure that the requirements across jurisdictions are well understood and that the requirements are reasonable.
   C. A wastewater exemption policy was implemented so that water usage that does not make its way into the DUWA System can be accounted for and financial exemptions granted, where it meets the parameters identified in the policy.
   D. The NPDES permit reapplication was submitted. This is the first application since DUWA took over and a number of



7.B – Sampling and Evaluations of Pollutants



7.C – Adoption of Wastewater Exemption Policy

7.D – New Wastewater Sampling Stations

THIRD YEAR MAJOR HIGHLIGHTS - CONTINUED

issues needed to be investigated to make sure that the information is complete and accurate. One of the projects under item 3D, above, is a new wastewater sampling station to obtain a more representative sample of the influent wastewater quality. The historical sampling site included recycle flows, which can significantly impact the water quality samples. Veolia primarily used its internal staff to minimize the cost of this project.

E. An account was established with MITN/BidNet an auction site set up for government agencies to dispose of surplus assets. Although it is a small item as part of the overall operation, an efficient way to dispose of assets that are no longer needed helps to keep the site clean and efficient.

F. As-needed engineering services contracts were established with three firms through a competitive process. This provides a broader spectrum of services available and also helps with situations where one firm cannot meet the schedule constraints.

G. Several potential future property needs were evaluated since the existing site is constrained.

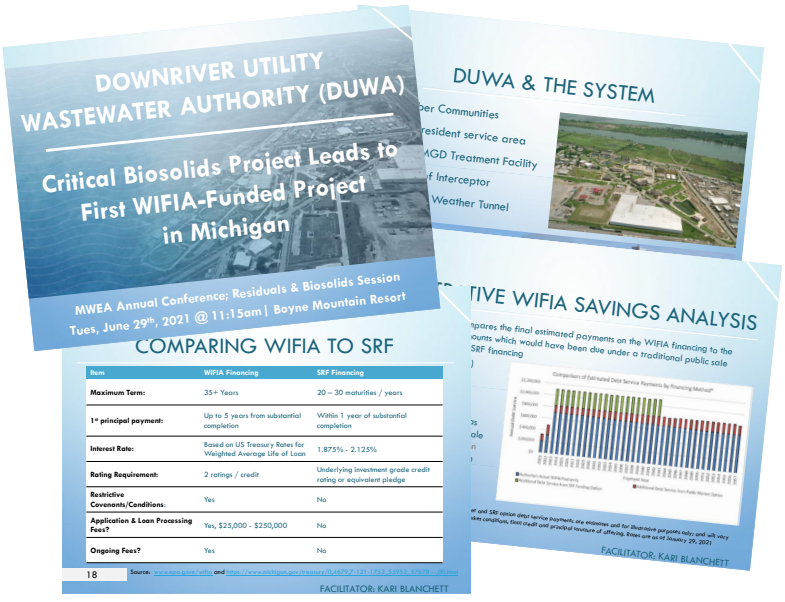
8. It is also important that DUWA gets the message out about what is going on in the system and to transfer our "lessons learned" to others. A few actions in 2021 were as follows:

   A. Presented at MWEA (the wastewater professionals' organization in Michigan) conference in June on the WIFIA loan – the first in Michigan and the first for a facility utilizing a private operations firm nationally. The information was well received, and we understand that GLWA is exploring use of WIFIA for some of their projects.

   B. Held the first DUWA "elected official's luncheon" in December to help community representatives understand more about their wastewater system and how all the individuals involved with DUWA are working hard to provide excellent service cost-effectively to our customers.

   C. Working with Veolia, developed a new video to tell the DUWA story.

   D. Received an award from ACEC for "Utility Restructuring for Long-Term Success" for demonstrated success in standing up the authority, including special focus on the unique ownership transition for a large and complex wastewater system,



8.A – Secured First-In-Michigan WIFIA Loan

8.B – Official's Luncheon and Site Tour

THIRD YEAR MAJOR HIGHLIGHTS - CONTINUED

improved communications between the DWTF operators and local members during wet weather events, and overcoming the unexpected landfill restrictions by advancing on the biosolids dryer project.

E. Developed this annual summary report, which provides information about some of the system highlights and upcoming challenges.

9. As the system matures, the personnel involved with the system also evolves. One notable change in 2021 was the passing of Dan Paletko, Mayor of Dearborn Heights, from COVID-19. He was an important advocate for DUWA and worked hard to effectuate the transfer. We appreciate his efforts and miss him.

FUTURE CHALLENGES

In reviewing the challenges contained in last year's report, it is important to note that each of those challenges became an accomplishment in 2021. In looking to the future, here are a few challenges that we expect to address:

I. The ultra-violet (UV) disinfection system was state-of-the-art when it was installed in the 1990s. Unfortunately, the equipment is becoming obsolete, and the manufacturer has identified that they will no longer support it (e.g., spare parts availability) in a few years. Evaluating options for replacement and financing need to get underway soon.

II. EGLE, the State regulatory agency, wants to see continued reductions in the number of annual blending events. The next stage of improvements will likely involve reducing the flows in the local community sewer systems through a program labelled CMOM (Capacity, Management, Operations, and Maintenance). This may require regional incentives for the local communities.

Future Challenge I – The current UV disinfection system is becoming obsolete. DUWA will be evaluating options for replacement.

Future Challenge II – DUWA increased flow through secondary clarifiers via implementation of Control Measure A.