



THE CONNECTOR

Quarterly Updates



Transmission-Level Power Brings Metro into a New Era of Reliability

Jack Hennes

Communications Specialist Senior

Metro's new electrical transmission service substation is now fully online. Located on the north side of the Robert W. Hite Treatment Facility (RWHTF), the groundbreaking project connects Metro to transmission-level power. The project brings Metro's RWHTF into a new era of reliability for decades to come.

Previously, Metro's power was pulled from distribution-level, which is similar to most homes and businesses. However, distribution-level power unfortunately led to frequent and unexpected outages. Moving to transmission-level power will increase reliability and will limit service interruptions that can disrupt our operations.

"We currently experience about 15 outages a year on the distribution system. On the new transmission system, we only expect an outage once every five years or so," said Ben Ruder, Principal Engineer and Metro Project Manager.

Electrical Substation, continued

In addition to providing a more robust and reliable power source, the project will meet Metro's current and projected power needs through 2055. The project will also lead to significant cost savings. In fact, the substation will reduce Metro's energy costs by roughly \$1 million per year.

Such a large and complex project wouldn't have been possible without the coordination of multiple Metro departments, especially Operations (Ops) and Maintenance. Earlier this year, the project team led a series of MOPs (Method of Procedure), which are coordinated shutdowns to test and transition the power while the plant is running. The team worked closely with Ops, Maintenance, and the project contractor to successfully execute these shutdowns during the 24-7 operations at the Robert W. Hite Treatment Facility.

The project also includes a unique feature: a new utility bridge over the South Platte River to both provide a safe path for pedestrians as well as a means to cover utility piping and connections necessary for the project. "The way we set the bridge was a huge accomplishment," Ruder shared. The bridge was assembled in two sections. At night when the South Platte River Trail was closed, the contractor used two cranes—one on each side of the river—to hoist the bridge into place*. Once the project contractor puts final safety measures in place, Metro hopes to open the bridge later this year.

*Watch the utility bridge construction timelapse here: [PAR-1265-Official1-Bridge-timelapse-2.mpv4](#)



Support building for the new electrical substation at Metro Water Recovery's RWHTF in Denver, CO

Alyse Greenberg

Senior Communications Specialist

Metro Water Recovery is governed by a 40-member Board of Directors. The Board provides guidance and leadership for Metro while representing the interests of you, our connectors. We'd like to introduce three of our directors.



Name: Cody Berg

Appointed to the Board in: 2024

Connector agency: Applewood Sanitation District

Favorite thing about being on Metro's Board: Cody stated, "I love the collaboration, the transparency, and that everyone is very knowledgeable. Metro's ability to explain what we're doing provides an added level of comfort for connectors."

Name: Jason O'Shea

Appointed to the Board in: 2025

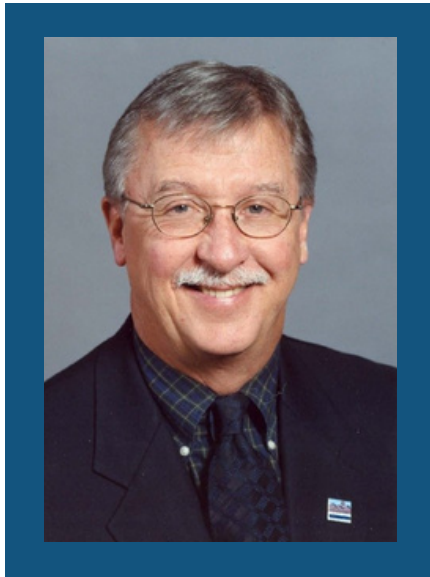
Connector agency: City of Thornton

Favorite thing about being on Metro's Board:

Jason stated, "I've worked with the City of Thornton for about 27 years, and being on Metro's Board allows me to see how a different organization works and gain a different perspective."



Meet Metro's Directors, continued



Name: Craig Kocian

Appointed to the Board in: 2003

Connector agency: City of Arvada

Favorite thing about being on Metro's Board: Craig said, "The evolution in sophistication of our treatment processes in response to regulations and ethics has been fascinating to watch and learn to understand."

Name: Deborah Crisp

Appointed to the Board in: 2020

Connector agency: East Lakewood Sanitation District

Favorite thing about being on Metro's Board:

Deborah said, "Metro has the ability to identify when there's a problem and then present solutions in a way that makes the Board feel comfortable."



Upcoming events and sponsorships

- 9/19 - Denver Trout Unlimited Carp Slam (sponsored): Metro will be tabling at the awards ceremony for this fundraiser supporting the South Platte River. Engagement Goal: Metro collaborates in action.
- 9/26 - Edgewater Hometown Festival (sponsored): Metro is sponsoring this free community event in the Edgewater community. Engagement Goal: Metro is recognized.
- 9/30 - Central Colorado Water Conservancy District Children's Water Festival (sponsored): Metro will teach over 1,200 4th and 5th grade students about wastewater as part of this free water-focused event reaching students in Adams, Morgan, and Weld counties. Engagement Goal: Metro is an educator.
- 10/8 - Behind the Scenes: Wastewater Industry Showcase: In partnership with HR, we host a career panel and tour for students to help them learn about career opportunities in wastewater. Goal: Metro is an educator.

Utility Cabinet Vinyl Wrap Art Contest

In July, Metro issued a call for art, inviting artists to help transform one of our utility cabinets in Denver at the National Western Center and CSU Spur Campus. To date, Metro has received over 60 submissions! Thank you to everyone who entered the contest and to those who helped spread the word about this opportunity!

The art contest is now closed--check out page 13 to vote on the winning artwork! Please follow along on the [Currents Blog](#) and cast your vote using the QR code shown at the bottom left on page 13



Maritza Franco, front right, led a tour for the River Watch Inspiring Student Education (RISE) Club at the Northern Treatment Plant.

Media Coverage

- None for August

Upcoming Tours

- 10/3 Tour Tuesday (NTP)

Questions? Contact External Affairs
Director Erin Bertoli at
ebertoli@metrowaterrecovery.com

NITRITE

AN EVOLVING REGULATORY FOCUS

During Colorado's 2026 water quality assessment process, the Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division (WQCD) determined that a portion of South Platte River Segment 15 should be added to the state's Section 303(d) List of Impaired Waters for nitrite. Although Metro Water Recovery (Metro) has long managed nitrogen as part of its treatment and permit-compliance responsibilities, the 2026 impairment determination elevated nitrite as a distinct regulatory issue affecting Metro.

COLORADO'S WATER QUALITY ASSESSMENT PROCESS

Section 303(d) of the federal Clean Water Act requires state-implementing agencies to periodically evaluate whether rivers, streams, lakes, and reservoirs are meeting applicable water quality standards. WQCD conducts this evaluation through its Integrated Water Quality Monitoring and Assessment Report, commonly called the Integrated Report.

WQCD evaluates available monitoring data and determines whether waters are attaining standards established to protect designated uses such as aquatic life, recreation, water supply, and agriculture. The results are adopted through Water Quality Control Commission (WQCC) Regulation No. 93, which includes Colorado's Section 303(d) List of Impaired Waters and its Monitoring and Evaluation List. A Section 303(d) listing identifies a waterbody that is not meeting one or more applicable water quality standards. Importantly, it is an instream water quality assessment determination and is not a determination related to permit compliance for one or more dischargers.

Following a Section 303(d) impairment listing, additional technical and regulatory evaluation work can take place to better understand the nature of the impairment, potential contributing sources, and the most appropriate regulatory path. The listing itself does not determine the cause of the impairment, and to date the WQCD has not reached conclusions regarding the causes of the Segment 15 nitrite impairment.

Depending on future monitoring results and technical evaluations, potential outcomes include removal from the Section 303(d) List if

Category 1

Attaining water quality standards for all classified uses

- 1a - Attaining water quality standards
- 1b - Attaining water quality standards with an approved TMDL

Category 2

Attaining water quality standards for those classified uses that have been assessed. Not all classified uses have been assessed.

Category 3

Insufficient data to determine whether the classified uses are being attained.

- 3a - No water quality data has been collected
- 3b - Segment placed on the Monitoring and Evaluation List (M&E List)

Category 4

Not supporting a standard for one or more classified uses, but a TMDL is not needed.

- 4a - TMDL has been completed
- 4b - Plan for attainment of water quality standards
- 4c - Impairment caused by pollution, not by a pollutant (flow aeration)

Category 5

Not meeting applicable water quality standards for one or more classified uses by one or more pollutants, and a TMDL is needed (303(d) List).

- 5a - Advanced Restoration plan

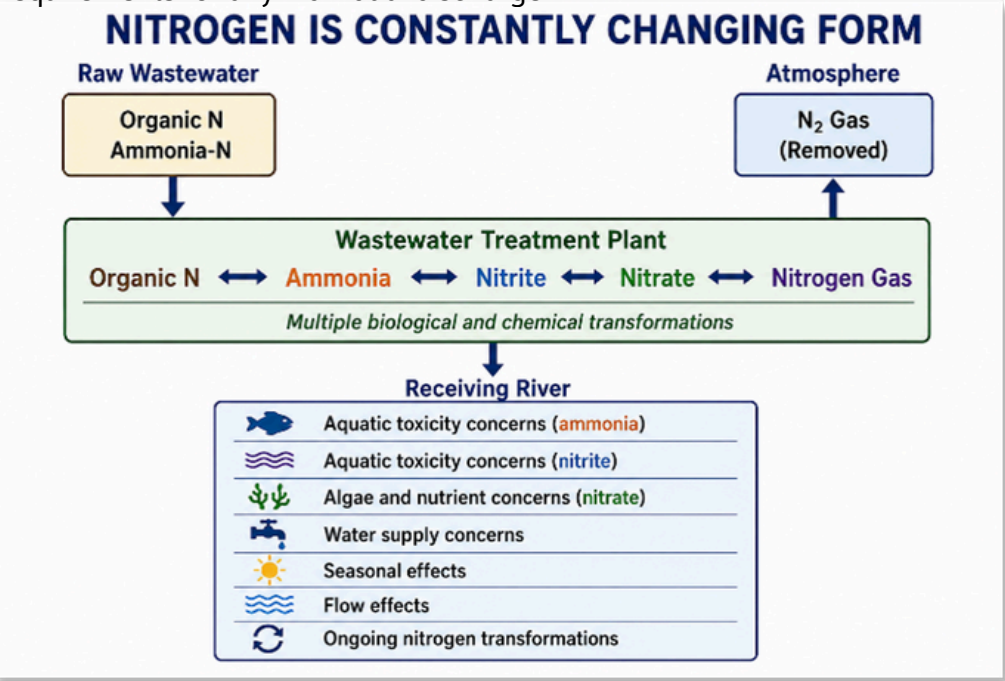
subsequent assessments demonstrate attainment of applicable water quality standards, placement on Colorado’s Monitoring and Evaluation List if additional information is needed to fully characterize attainment, development of a Total Maximum Daily Load (TMDL), or implementation of an alternative restoration approach, such as a Category 4b plan, if the regulatory criteria are satisfied.

NITRITE STANDARDS AND THE SEGMENT 15 IMPAIRMENT LISTING

Colorado has established both acute (short-term) and chronic (long-term) water quality standards for nitrite to protect designated uses of the South Platte River, including aquatic life and water supply. Acute standards protect against the effects of brief exposure to elevated nitrite concentrations, while chronic standards protect against the effects of sustained exposure over longer periods. For the applicable portions of Segment 15, the acute nitrite standard is 1.0 milligram per liter (mg/L as NO₂-N). The 2026 Category 5 impairment determination was based on exceedances of this acute standard.

Because the acute standard is based on a one-day average, Colorado’s 2026 Listing Methodology evaluates whether that standard is attained by examining the frequency of one-day exceedances. Under the approved methodology, a waterbody is considered not attaining the acute standard when monitoring data show more than one exceedance within a three-year period. During the applicable assessment period, WQCD identified five exceedances of the acute nitrite standard in South Platte River Segment 15 in the ~17 miles long river reach between the Robert W. Hite Treatment Facility (RWHTF) outfalls and 160th Avenue in Brighton. Applying the Listing Methodology, WQCD concluded that the segment met the criteria for inclusion on Colorado’s Section 303(d) List of Impaired Waters.

The impairment listing reflects the results of Colorado’s statewide water quality assessment process. By itself, it does not determine the cause of the exceedances, assign responsibility among potential sources, or establish new requirements for any individual discharger.



Neither Metro’s RWHTF nor the Northern Treatment Plant (NTP) currently has a stand-alone nitrite effluent limit. The permits regulate nitrogen through other parameters, including ammonia, nitrate-plus-nitrite, and Total Inorganic Nitrogen (TIN).

NITRITE AND THE NITROGEN CYCLE

Nitrite is one of several forms of nitrogen present during wastewater treatment. As shown to the left, nitrogen is continually transformed through naturally occurring biological processes. Because nitrite is an

Fig. 2 - Visual showing the nitrogen cycle and its relation to the wastewater treatment process

intermediate product of the nitrogen cycle rather than an end product, its concentration is influenced by the same biological processes that affect overall nitrogen removal. The various forms of nitrogen are interconnected, and changes in one form can influence the others.

Historically, Metro's treatment plants have focused on achieving compliance with the nitrogen-related effluent limits established in their discharge permits, including ammonia, nitrate-plus-nitrite, and Total Inorganic Nitrogen. Because neither RWHTF nor NTP currently has a stand-alone nitrite effluent limit, nitrite has generally been managed as part of Metro's broader nitrogen treatment strategy rather than as an independent compliance parameter. This interconnected relationship makes nitrogen management a balancing act. Operational strategies designed to optimize one nitrogen objective may also influence other nitrogen species because they are linked through the same biological processes. As a result, evaluating nitrite requires considering the entire nitrogen cycle rather than nitrite alone.

The relationship between ammonia removal and nitrite formation has been recognized for decades. During the 1983 adoption of the site-specific nitrite criterion for this reach of the South Platte River, the WQCC acknowledged that increased ammonia removal could result in increased nitrite formation because nitrite is an intermediate product of nitrification. What is new is the 2026 determination of impairment of the acute nitrite standard based on the five-year period of record between 2018-2022.

METRO'S INITIAL ANALYSIS

Metro has evaluated facility and instream monitoring information to better understand the in-river exceedance events and the conditions under which they occurred. The identified exceedances occurred downstream of RWHTF and were not observed at upstream monitoring locations. Elevated instream nitrite concentrations also generally corresponded with periods during which elevated effluent nitrite concentrations were observed.

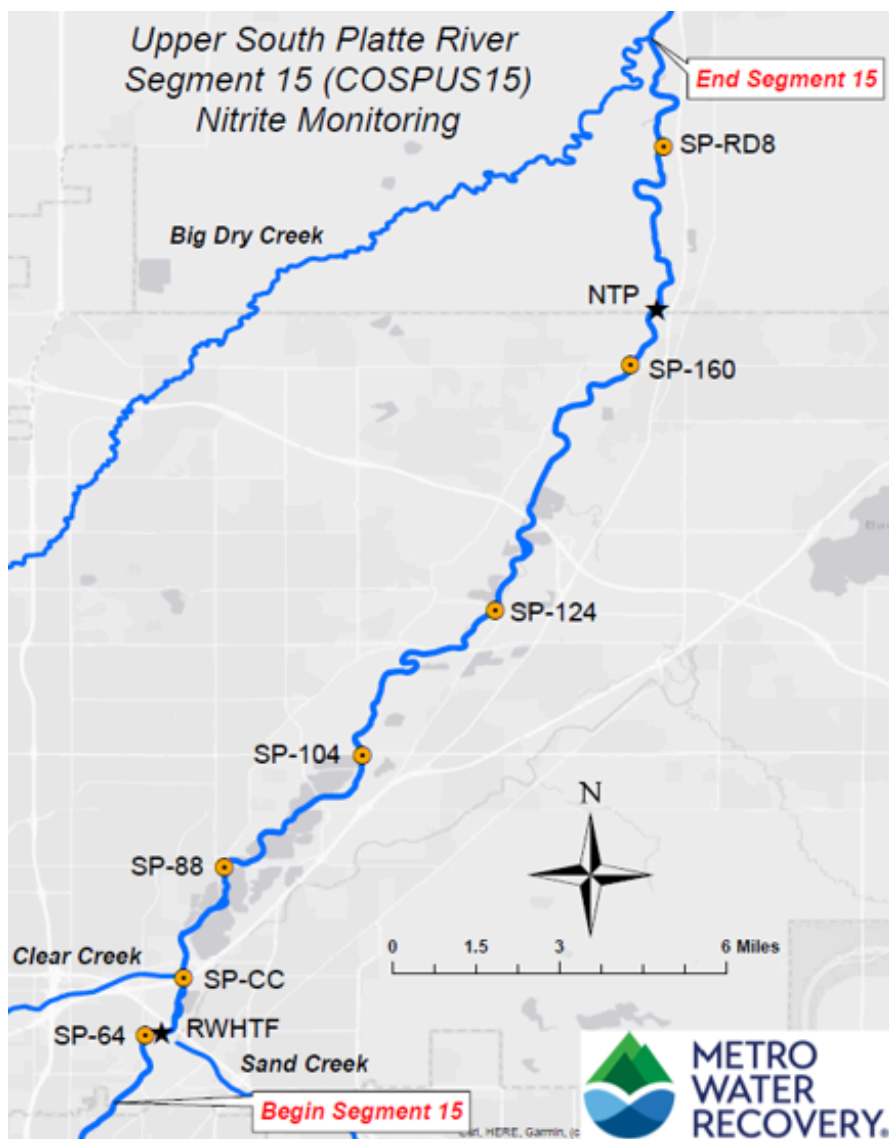


Figure 3 - Water Quality monitoring location map

South Platte Monitoring Site	Date(s) of Exceedance of 1.0 mg/l Nitrite Standard (Acute)
64 th Avenue (~0.2 Miles Upstream of RWHTF)	None
Upstream of Clear Creek (~1.2 Miles Downstream of RWHTF)	2/17/21, 3/3/21, 11/16/22
88 th Avenue (3.6 Miles Downstream of RWHTF)	2/3/21, 2/17/21, 3/3/21, 11/16/22
104 th Avenue (~7 Miles Downstream of RWHTF)	2/3/21, 2/17/21, 3/3/21, 11/16/22, 9/18/24
124 th Avenue (~11.2 Miles Downstream of RWHTF)	2/17/21, 3/3/21, 11/16/22
160 th Avenue (~17 Miles Downstream of RWHTF)	2/17/21
Weld County Road 8 (~22 Miles Downstream of RWHTF)	None

Figure 4 - List of instream exceedance dates between 2016 - 2026

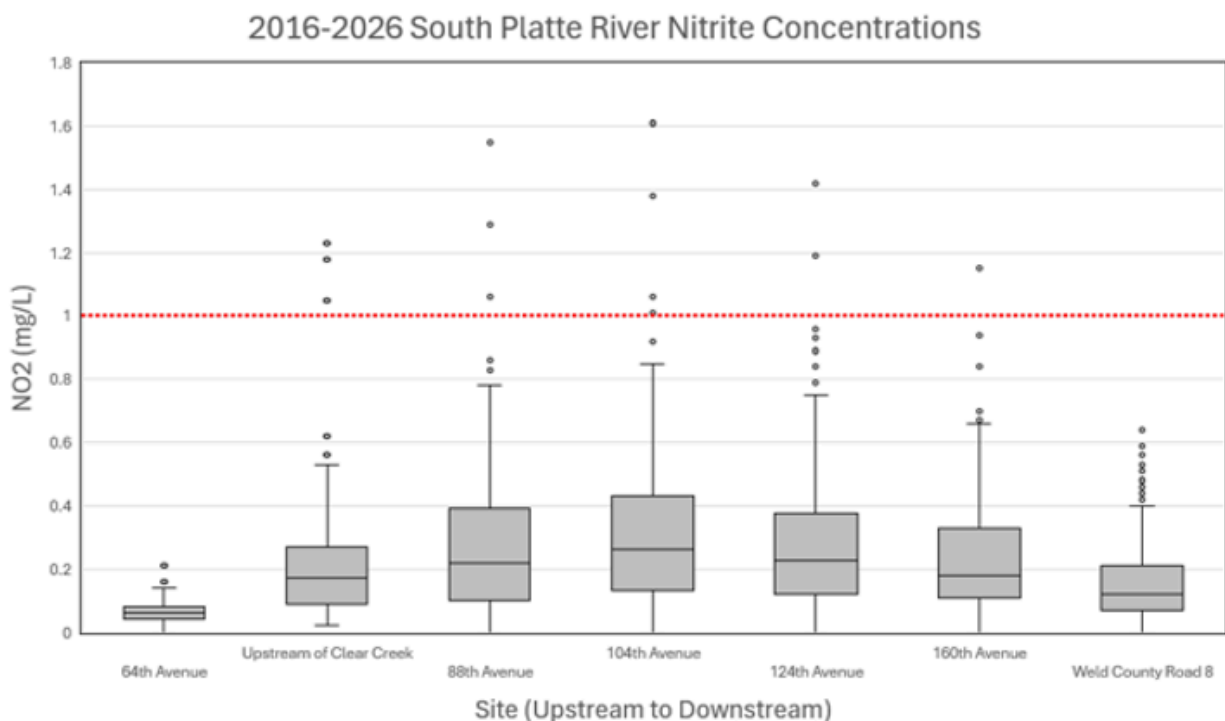


Figure 5 - Box plot of South Platte River Segment 15 nitrite concentrations (210 - 2026). The red line represents the 1.0 mg/L acute nitrite standard

The exceedances were episodic rather than continuous and occurred during colder-weather and lower-streamflow conditions. During these periods, biological conversion rates may be slower, and the river may provide less dilution.

These observations warrant further technical evaluation, but they do not independently establish the relative contribution of facility discharges, instream nitrogen transformations, background conditions, other sources, or the interaction among these factors.

Metro’s evaluation work to date has identified the following recurring characteristics associated with the events:

- Elevated instream nitrite generally corresponded with periods of elevated effluent nitrite.
- Events occurred during colder-weather conditions.
- Lower streamflows may have influenced instream concentrations.
- Nitrification performance appeared more sensitive during these periods.

These findings reinforce the importance of evaluating nitrite within the broader context of nitrogen management. Factors that influence nitrite accumulation may also influence ammonia removal, nitrate formation, and overall nitrogen-removal performance.

NITRITE PRESENTS A UNIQUE TECHNICAL CHALLENGE

Unlike a conservative pollutant that primarily moves downstream after discharge, nitrite is reactive. It can be produced, consumed, converted, and diluted within both the treatment system and the receiving stream.

An instream nitrite concentration may therefore reflect a combination of:

- Direct nitrite loading
- Conversion of ammonia to nitrite within the river
- Conversion of nitrite to nitrate
- Seasonal biological activity
- Stream temperature
- Streamflow and dilution
- Background and nonpoint sources
- Contributions from multiple dischargers

This behavior makes it difficult to evaluate nitrite through a simple mass balance comparison of discharge loads and downstream concentrations. A technically sound approach is complex and must consider not only the nitrite entering the river, but also the biological and chemical transformations occurring after discharge.

METRO’S CROSS-FUNCTIONAL COORDINATION

In addition to continued engagement with and monitoring of WQCD and WQCC efforts and priorities related to nitrite (and broader nitrogen work), Metro has implemented a coordinated, cross-functional approach to better understand the operational, regulatory, in-river and treatment-process conditions associated with nitrite.

In addition to continued engagement with and monitoring of WQCD and WQCC efforts and priorities related to nitrite (and broader nitrogen work), Metro has implemented a coordinated, cross-functional approach to better understand the operational, regulatory, in-river and treatment-process conditions associated with nitrite.

Current technical areas of evaluation include solids-retention time, dissolved oxygen, mixed-liquor suspended solids, alkalinity, pH, aeration performance, seasonal operating conditions, effluent and instream monitoring trends, and overall nitrogen-removal performance. This work is intended to improve Metro’s understanding of nitrite behavior while supporting stable nitrification, broader nutrient-removal objectives, treatment reliability, continued compliance with existing permit requirements and planning for potential future infrastructure and operational needs.

LOOKING AHEAD

The Section 303(d) listing begins a regulatory evaluation process, and it does not predetermine the outcome. If future monitoring demonstrates that the nitrite standard is being attained in accordance with Colorado’s Listing Methodology, the affected reach could be removed from the Section 303(d) List during a future assessment cycle. If uncertainty remains regarding attainment, causation, or the representativeness of the available data, the state could consider placement of the stream segment on the Monitoring and Evaluation List. If impairment continues to be demonstrated, the state may evaluate development of a TMDL (which would be very complicated, if not impossible considering the complexities of nitrogen species) or another regulatory approach. Ongoing instream nitrite monitoring has shown that Segment 15 has been in attainment of the 1.0 mg/L acute standard since the 303(d) listing decision based on 2018-2022 data. During the January 2023 – June 2026 period, there has been only a single isolated exceedance at the 104th Avenue monitoring location, indicating that the segment may qualify for delisting or downgrading to the Monitoring and Evaluation List during the next assessment cycle

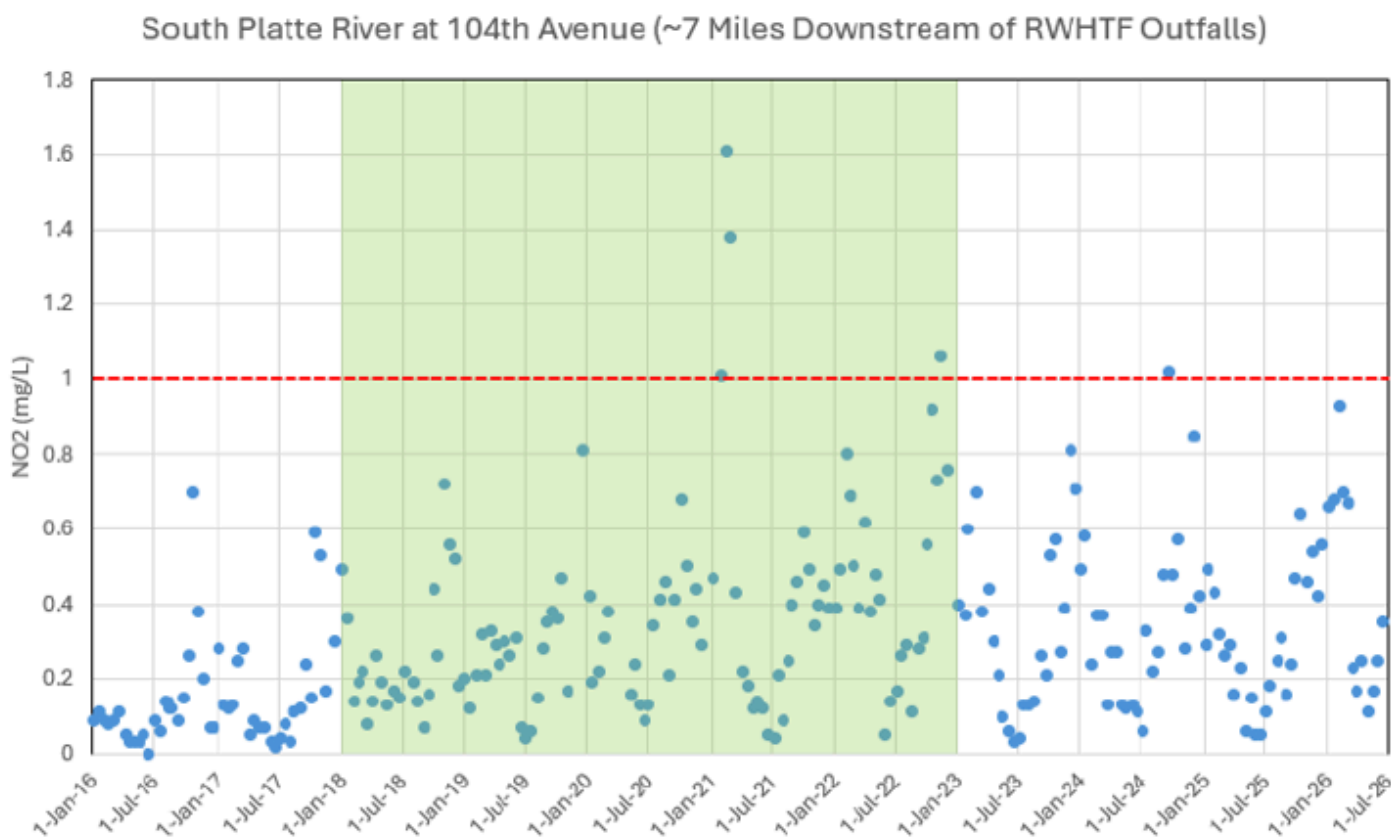


Figure 6 – Green shaded area represents the 2018-2022 assessment period used in the recent 303(d) listing. Red dashed line indicates the 1.0 mg/L acute standard.

Any future nitrite-focused work that WQCD and others may perform would likely need to consider the broader nitrogen cycle rather than nitrite alone. Relevant factors could include ammonia, nitrite and nitrate loading, total nitrogen, biological transformations, temperature and pH, seasonal and streamflow conditions, background sources, multiple dischargers, and existing permit requirements for other nitrogen forms. One of the central technical questions would be whether elevated nitrite is driven primarily by direct nitrite loading, instream conversion of ammonia, background conditions, multiple sources, or some combination of these factors.

If Metro's technical work ultimately indicates that RWHTF is a likely or primary contributor to the instream exceedances, Metro could evaluate whether a voluntary Category 4b regulatory approach would be appropriate.

Such an approach could provide an alternative to TMDL development by identifying actions expected to achieve water quality standards, similar to Metro's successful 2010 ammonia Category 4b regulatory approach, which was implemented through subsequent permit compliance schedules.

Metro will continue evaluating treatment performance, river conditions, seasonal trends, and the relationships among the different forms of nitrogen as additional information becomes available.

Rather than developing a stand-alone response to nitrite, Metro will evaluate and address any future nitrite-related compliance requirements as part of its broader nitrogen treatment and compliance strategies through the Integrated Plan work.

For any questions, contact Brett Icenogle, Interim Director of Environmental Services, at bicenogle@metrowaterrecovery.com

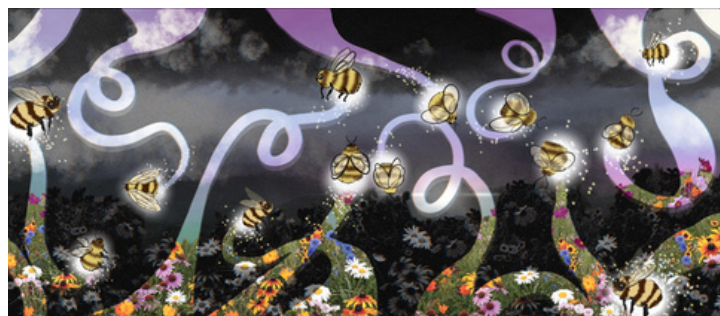


VOTE FOR YOUR FAVORITE ART

Help us select art for our utility cabinet!



Cheryl Cusick



Jaclyn Garrett



Tami McDonald



Kathleen Jenney



Tristan Mraz



Cast your vote at:
www.bit.ly/MetroVote

Vote by
Oct 5!

Unlocking the Full Value of Metro Water Recovery's Biogas

From Cogeneration to Renewable Natural Gas

For more than 40 years, Metro Water Recovery (Metro) has recovered renewable energy from wastewater at the Robert W. Hite Treatment Facility (RWHTF) by using biogas produced during anaerobic digestion. This byproduct fuels Metro's combined heat and power (CHP) system, providing renewable electricity and process heat.

Now Metro is entering the next chapter in biogas recovery and use. Construction is underway on the RWHTF Biogas Utilization Project (PAR 1395), illustrated below, which will upgrade digester biogas into pipeline-quality renewable natural gas (RNG). While full project completion remains months away, commissioning of the initial project phase is planned in the third quarter of this year.

In parallel with construction, Metro has prepared for commercial operation by establishing the partnerships and strategy needed to maximize the value of both RNG sales and the associated environmental attributes. As a result, RNG sales could become Metro's largest non-ratepayer revenue source to date.

This Innovation Quarterly briefly revisits the decisions that led Metro to RNG and looks ahead to the commercial strategy.

RNG creates two marketable products:

Creating Additional Value Through Renewable Fuel Markets

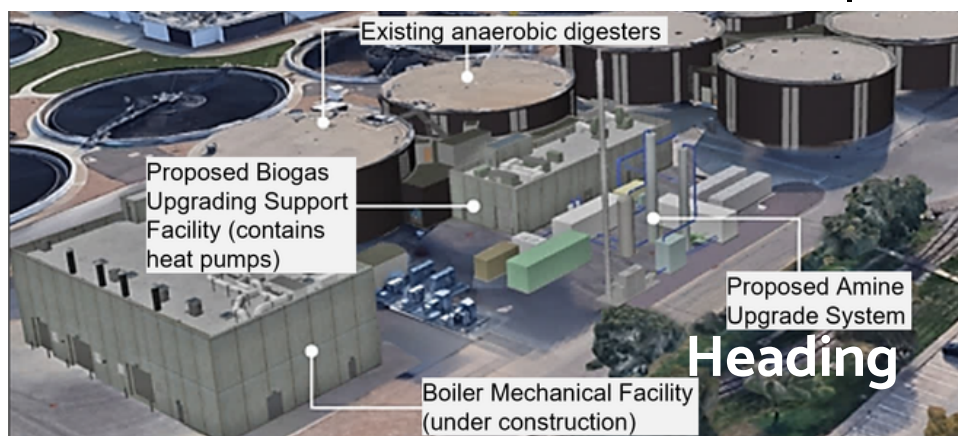
⚡ Commodity natural gas

Commodity natural gas delivered into Xcel Energy's natural gas pipeline

⚡ Environmental attributes

Environmental attributes, which represent the renewable value of RNG when it displaces fossil fuels in qualifying markets.

As shared in the Innovation Quarterly 20, Metro registered its biogas production as a sustainable, traceable fuel and worked with a recognized fuel distributor to market biogas environmental attributes. This project resulted in non-ratepayer revenues of \$8.3 million from October 2023 to October 2025. RNG production will expand similar non-ratepayer revenue opportunities.



The RNG facility currently under construction in the northeast corner of the digester complex could result in Metro's most significant non-ratepayer revenue stream to date.

Heading

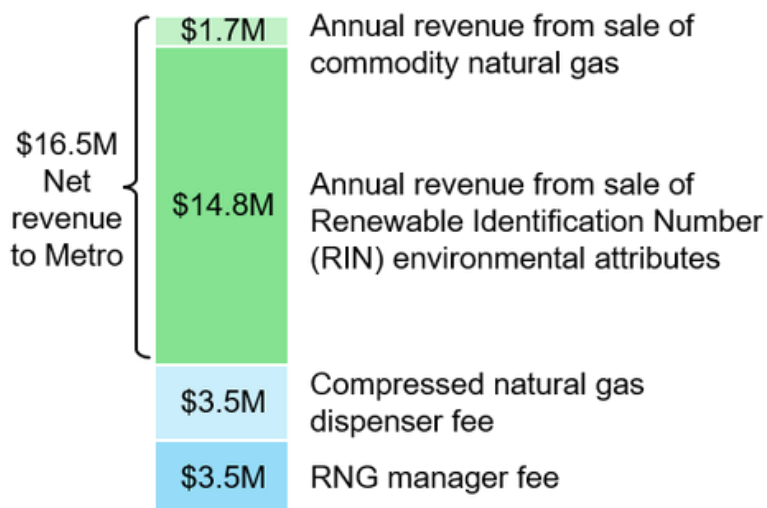
Turning RNG Production into Non-Ratepayer Revenue

Successfully profiting from renewable fuel markets requires expertise in renewable fuel programs, participation requirements, environmental commodity markets, pipeline operation, and contracting structures. While Metro will continue to own and operate the RNG facility, it is procuring a specialized RNG marketing partner to help establish the commercialization program.

Commercialization partners range from traditional gas brokers to full-service RNG managers. Compensation models vary from fixed-fee arrangements to revenue-sharing structures that align the partner's incentives with maximizing the long-term value of Metro's RNG program.

Beyond providing commercialization services, the selected partner will bring established relationships with qualified RNG off-takers, compressed natural gas (CNG) dispensers, and obligated parties under the U.S. Environmental Protection Agency's (EPA) Renewable Fuel Standard (RFS). These types of relationships help reduce commercial risk and establish reliable pathways for monetizing both RNG and its associated environmental attributes. While the initial priority is to establish a compliant, reliable, and revenue-generating commercialization program from the first day of RNG operation, Metro will have the flexibility to reevaluate its service needs and commercial arrangements as the program matures.

Anticipated Annual Revenue from RNG Sales



Illustrative allocation of annual RNG revenue based on five-year average commodity and RIN pricing, among market participants. Actual values vary with production, markets, contracts, and program eligibility.

The partner Metro plans to hire is expected to provide expertise and execution in key aspects of the commercialization program, including:

- Register project with applicable fuel programs.
- Manage program compliance and reporting.
- Market natural gas and environmental attributes.
- Secure qualified RNG off-takers and coordinate sales with obligated parties under the RFS.
- Provide regular reporting on production, pricing, revenues, and market conditions.

Renewable Fuel Markets: Creating Value Beyond the Gas

The RFS is expected to be Metro's primary initial market for environmental attributes. Under the program, RNG produced from wastewater can generate RINs—tradable compliance credits used by obligated parties to meet federal renewable fuel requirements—creating value beyond the sale of natural gas itself.

Renewable fuel markets continue to evolve beyond the RFS and include emerging state low-carbon fuel programs, voluntary markets, and sectors such as maritime and sustainable transportation fuels. Metro's strategy is to maintain flexibility and pursue the combination of programs that provides the greatest long-term value while adapting to differing market requirements and opportunities.

From Feasibility to Commercial Operation

By 2021, Metro’s CHP facility had reached a point where major reinvestment would be required to continue long-term operation. Rather than replace aging equipment, Metro evaluated the highest and best use of the renewable biogas produced every day at the RWHTF.

The 2021 Biogas Utilization Study (PAR 1395) compared two long-term alternatives: replace and modernize the existing cogeneration system or upgrade biogas into RNG for direct pipeline injection. Using a triple-bottom-line evaluation of financial, environmental, and operational/strategic objectives, the study concluded that pipeline injection offered the best overall financial returns, capital investment, operational flexibility, reduction in on-site air emissions, and access to emerging renewable fuel markets. Based on those findings, Metro elected to transition from CHP to RNG.

Program and Construction Update

Construction of the RNG facility continues to progress, with equipment installation and system integration advancing toward commissioning and startup. As CHP is retired, Metro is constructing a new boiler mechanical facility to replace the thermal energy previously recovered from the CHP process. The system combines high-efficiency natural gas-fired boilers with heat recovered from the RNG amine treatment process using a heat pump. Metro is also evaluating integration of treated effluent heat recovery to further reduce natural gas consumption while supporting long-term wastewater temperature mitigation.

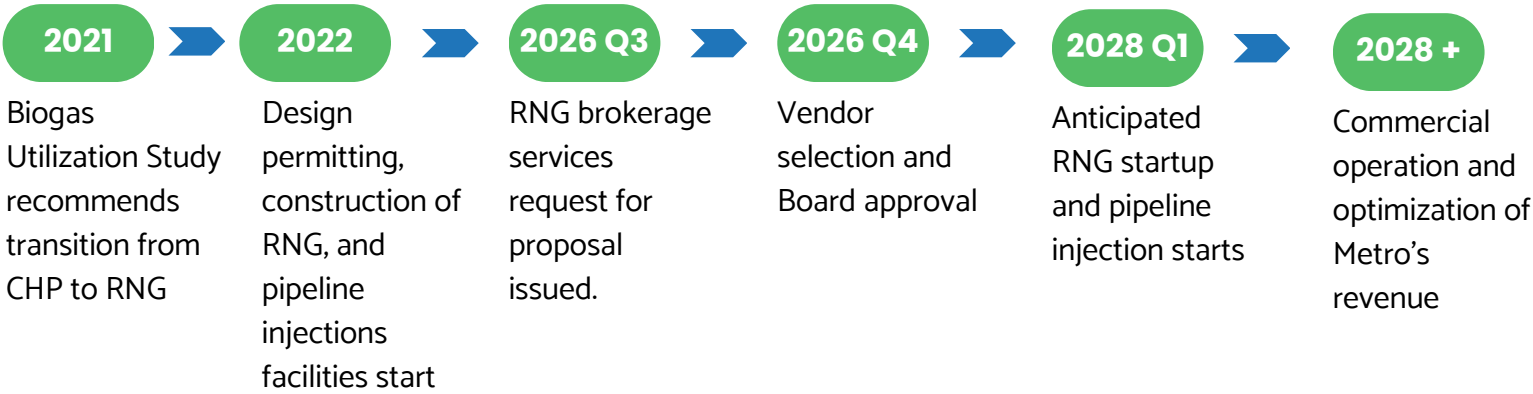


The RWHTF Biogas Utilization Project (PAR 1395), led by Metro Project Manager A.D. Norford, will commission the Boiler Mechanical Facility in the third quarter of 2026, a critical early milestone necessary to maintain essential process heating after CHP decommissioning and prepare the site for Biogas Upgrading Facility construction.

Looking Ahead

As construction progresses, Metro will advance commercial readiness in parallel by preparing the renewable fuel program registrations, operational procedures, and commercial relationships needed to begin marketing both RNG and environmental attributes upon startup.

Within months, the Board of Directors will be asked to participate in the evaluation and selection of Metro’s RNG commercialization partner, marking the next major milestone in transitioning from facility construction to commercial operation.



2026 / 2027 Annual Charges

Contact us if you have questions:

AnnualCharges@MetroWaterRecovery.com

SewerConnections@MetroWaterRecovery.com

Dates to Remember

10/15/26: Q3 Sewer Connection Charges Due

10/20/26: Metro Board Meeting

11/17/26: Metro Board Meeting

12/13/26: Estimated Commercial Water Use Reports Due (will be sent out in November)

12/15/26: Q4 Annual Charges Due

12/15/26: Metro Board Meeting

01/15/27: Sewer Connection Charges Due

Rules And Regulations

2027 Annual Charges Summary

2027 Water Recovery Cost Summary

[2027 Sewer Connection Charges](#)

