

UNION WATER SUPPLY SYSTEM INC.

ADMINISTRATION'S ANNUAL REPORT 2024



Table of Contents

CEO Remarks **3**

Infrastructure **4**

Operations & Maintenance **8**

Regulatory Compliance **9**

Communications **10**

Financials **11**



CEO REMARKS



RODNEY BOUCHARD

CHIEF EXECUTIVE OFFICER & GENERAL MANAGER

Union Water Supply System Inc. acknowledges the Three Fires Confederacy (Ojibwe, Potawatomi and Odawa) and the Traditional ancestral, unceded territory of Caldwell First Nation; the original people of Point Pelee, Pelee Island and its surrounding waters. We recognize and respect the First Nations who are stewards of the land and waters of Turtle Island and who have embraced this stewardship since time immemorial. We would also like to acknowledge all the moccasins who have walked the lands of Turtle Island.

On behalf of Union Water Supply System Inc. (UWSS Inc.), it's my pleasure to present the inaugural edition of the UWSS Inc. Administration's Annual Report. This report highlights UWSS Inc.'s progress and achievements since becoming an operational corporation on January 1, 2024.

This is a moment of celebration. This “first year of operation” was truly rewarding at the administration level since many challenges were encountered and overcome. In 2024, UWSS Inc. strengthened its organizational foundations with a focus on better governance, enhanced communications and transparency, and improved financial practices to support long-term rate and capital planning. UWSS Inc. was also successful in obtaining the financing needed to implement some large capital improvements including the Reservoir #3 project and Dissolved Air Flotation Phase 2 works valued at over \$60 million. These efforts reflect our ongoing commitment to accountability, resilience, and delivering value to our municipal partners and the communities we serve.

However, we still have a lot of work to do. The UWSS drinking water system itself originates from 1960 and is in its 65th year. This means that many of the existing original system assets are approaching end of useful life and will need to be replaced. Also, water demand from UWSS is anticipated to increase considerably in the next 5-10 years due to expected significant growth in the residential sector and agri-food industry. This growth will necessitate large-scale improvements and expansion of our drinking water system, thus requiring significant financial investments. UWSS Inc. administration is fully aware of and is ready to take on these challenges!

I look forward to the continued support from the UWSS Inc. Board of Directors and to increasing and improving our collaboration with our municipal and industry partners. Through these partnerships, UWSS Inc. can ensure the continued delivery of high-quality drinking water to its residents and businesses.

Sincerely,


Rodney Bouchard

INFRASTRUCTURE

In 2024, UWSS Inc. invested \$5.83 million in major infrastructure projects aimed at expanding system capacity, modernizing operations, and enhancing system resiliency.

Featured Projects:

- **Reservoir #3 – Water Storage Expansion** (Multi-Year Project 2024-2026).
- **DAF #2 (Dissolved Air Flotation Unit) – Conversion of Clarifier #4** (Began Fall 2024).

Other Key 2024 Infrastructure Projects:

- **Travelling Screen #4** – Purchased and installed to enhance water treatment operations.
- **Electric Vehicle Charger** – Installed at the Ruthven Water Treatment Plant for staff use.
- **Filters #1 & #3 Automation Systems** – Upgraded to improve operational efficiency.
- **SCADA, Communication & Security Upgrades** – System-wide improvements implemented.
- **Backup Generator, Albuna Tower** – Installed to strengthen resiliency.
- **Albuna Tower Capacity Upgrade** – Assessment and improvements completed.
- **Distribution System Upgrades** – Valves, smart hydrants, and other infrastructure enhancements completed.
- **Kingsville Tower Utility Building** – Construction underway in 2024, completed and installed in 2025.
- **Water Quality Monitoring Equipment** – New analyzers for turbidity, chlorine, and pressure installed.
- **Facility Enhancements** – Lighting improvements in operational areas completed.

Ongoing / Multi-Year Projects Initiated in 2024:

- **Water Treatment Plant Façade & Elevator Improvements** – Engineering and design underway.
- **Water Treatment Plant Expansion (Preliminary Design)** – UV and filtration upgrades in planning.
- **PLC Replacement** – System automation upgrades in progress.
- **Cottam Reservoir Rehabilitation** – Structural and functional improvements.
- **Boundary Flow Meter Upgrades** – Enhancing flow accuracy and monitoring.
- **Backup Power System Upgrades** – Planning for site-wide emergency power.





DAF #2 UNIT INSTALLATION, FALL 2024 RUTHVEN WATER TREATMENT PLANT

DISSOLVED AIR FLOATATION (DAF #2) - CONVERSION OF CLARIFIER #4

PROJECT OVERVIEW

In Fall 2024, UWSS Inc. launched a key infrastructure project to convert Clarifier #4 into a second Dissolved Air Flotation (DAF) unit, known as DAF #2. This upgrade expands the Water Treatment Plant's pretreatment capacity and enhances its ability to respond to seasonal and weather-related changes in raw water quality. By integrating an additional DAF unit, the system gains improved efficiency in removing particulates before filtration, which supports more stable and effective downstream treatment.

IMPACT

DAF #2 increases overall operational resiliency by adding redundancy to the pretreatment process. This allows the plant to maintain performance even during equipment maintenance or high-turbidity events. It also reduces stress on existing filtration systems, extends equipment lifespan, and supports the continued delivery of safe, high-quality drinking water to the community—regardless of changing source water conditions.



RESERVOIR #3 UNDER CONSTRUCTION AT THE RUTHVEN WATER TREATMENT PLANT

RESERVOIR #3 - WATER STORAGE EXPANSION

In Spring 2024, UWSS Inc. began construction of Reservoir #3 at the Ruthven Water Treatment Plant. This \$50 million investment will significantly increase water storage capacity, enhance system resiliency, and improve management of high-demand flow periods.

IMPACT

Reservoir #3 will provide essential backup and operational flexibility, ensuring a stable supply of safe drinking water during peak usage and unexpected system challenges.

RESILIENCY BENEFITS

- Adds redundancy to storage capacity.
- Strengthens emergency preparedness.
- Supports reliable service during peak demand.

Scheduled for completion in 2026, this project is a key step in strengthening UWSS Inc.'s infrastructure for the future.

PLANNING AND ENGINEERING STUDIES

The following technical studies and planning efforts were initiated or continued in 2024 to support future infrastructure development and operational improvements:

Water Model Study

Updated hydraulic modelling of the system

Partner: CIMA+ | 2024 Status: Data collection underway

Water Treatment Plant Electrical System Upgrades

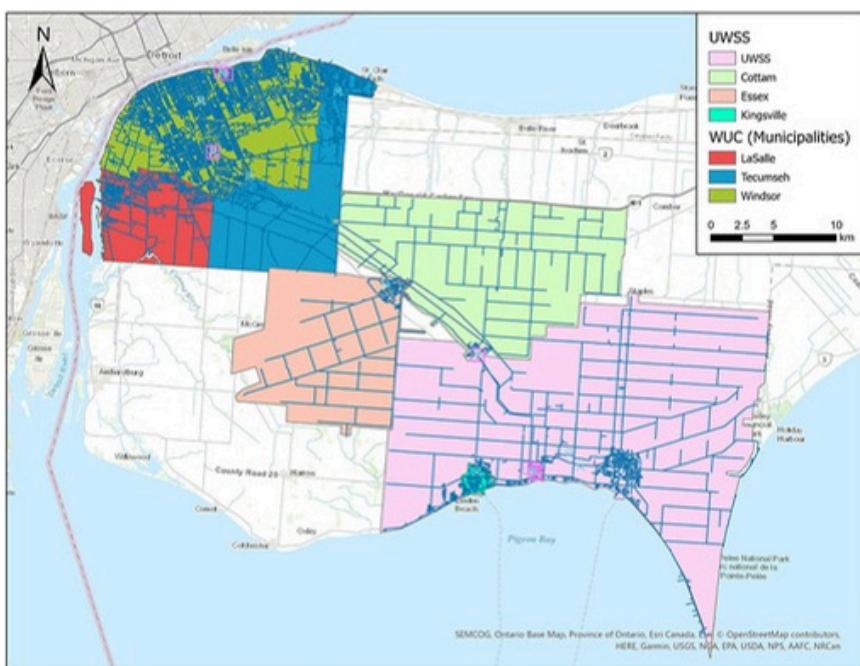
Power study and upgrade planning for the water treatment plant

Partner: AE | 2024 Status: In analysis phase

Resiliency Study (UWSS) Union Water Supply System - (WUC) Windsor Utilities Commission

Joint system redundancy and resilience planning

Partners: CIMA+, UWSS, WUC | 2024 Status: Class EA phase



SERVICE AREAS OF THE UNION WATER SUPPLY SYSTEM (UWSS) AND WINDSOR UTILITIES COMMISSION (WUC) MUNICIPALITIES IN ESSEX COUNTY.

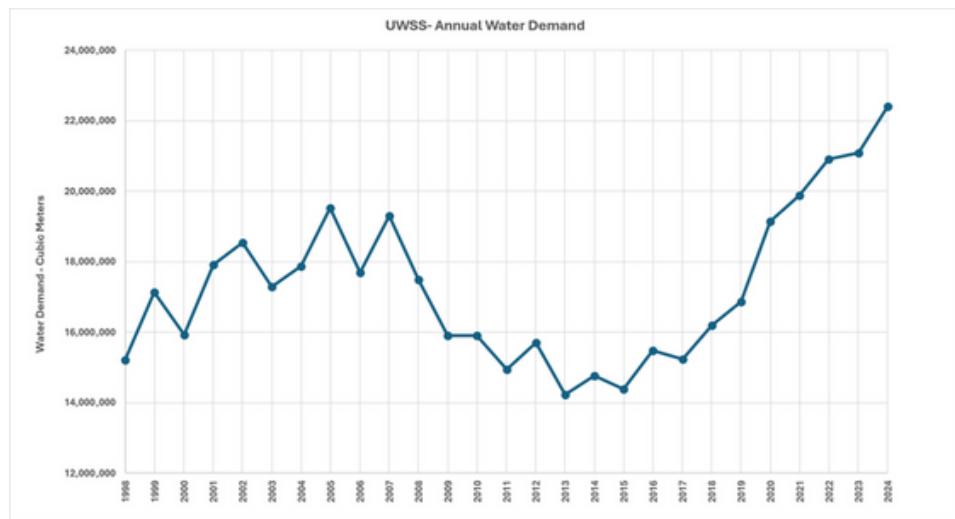
CIMA+ was retained to assess the feasibility of a UWSS-WUC interconnection through three key studies:

- An operational study to examine system compatibility and overall functionality.
- A reservoir study to determine the optimal size, location, and design.
- A water-quality study to ensure continued safe and reliable water distribution.

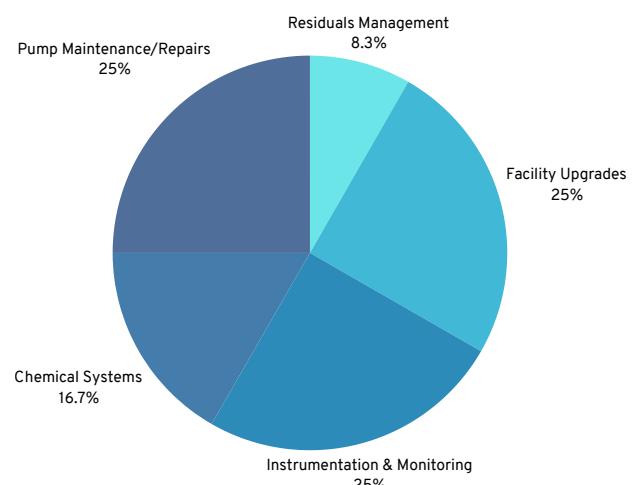
OPERATIONS & MAINTENANCE

In 2024, UWSS Inc. experienced a significant rise in water demand, surpassing 22 million cubic meters. This represented a 6.2% increase over 2023 and a 10.7% increase compared to the four-year average, driven by ongoing residential growth, agricultural expansion, economic recovery, and a hot, dry summer. To meet this higher demand, UWSS Inc. implemented extensive operations and maintenance efforts alongside targeted capital upgrades, focusing on treatment reliability, infrastructure renewal, energy efficiency, and the consistent delivery of safe, high-quality water.

UWSS Inc. - Annual Water Demand (1998-2024)



Operations & Maintenance Activities - 2024



KEY PROCESS IMPROVEMENT:

A FLOW METER WAS INSTALLED ON THE RESERVOIR FILLING LINE AT COTTAM BOOSTER PUMPING STATION, ALLOWING OPERATORS TO MONITOR WATER DIVERSION INTO THE RESERVOIR. SCADA WAS UPGRADED TO PROVIDE ESTIMATED FILL TIMES TO THE TOP WATER LEVEL.

2024 UWSS Inc. Operations & Maintenance Highlights

- Major maintenance on High Lift, Low Lift, and CBS pumps to ensure reliable operation.
- Energy-efficient lighting installed in plant areas, including Filter Gallery.
- Containment area relined with chemical-resistant materials for safe storage.
- Older pumps replaced with modern LMI units for improved efficiency.
- Heating and cooling system upgraded for High Lift pump.
- South residual management pond cleaned and prepared for drying and disposal.
- Multi-parameter analyzer installed at Cottam booster and inline spectrophotometer at main plant.
- Flow meters and SCADA enhancements improve monitoring of reservoir levels and water quality.

REGULATORY COMPLIANCE

2024 COMPLIANCE HIGHLIGHTS:

- **Full regulatory compliance** was maintained under Ontario's Safe Drinking Water Act and Drinking Water Systems Regulation (O. Reg. 170/03).
- **Microbiological testing** of raw and treated water confirmed treated water was free of E. coli and total coliforms.
- **Inorganic and organic parameters**, as well as nitrates, nitrites, and sodium, were consistently below Ontario Drinking Water Quality Standards.
- **Operational testing** of turbidity and chlorine residuals met all performance requirements, ensuring effective treatment and disinfection.
- **Lead testing** in connected municipal distribution systems met all Schedule 15.1 requirements, with no exceedances reported.

In 2024, internal and external DWQMS audits found one opportunity for improvement and no non-conformances. All required accreditations and approvals were renewed or obtained to maintain compliance.

Laboratory and Monitoring Services

- **53 raw water** and **53 treated water samples** were analyzed during the year, confirming safe and compliant treated water quality.
- **8,760 continuous monitoring tests** for turbidity and chlorine residuals were performed, ensuring treatment process integrity.
- Additional sampling, including suspended solids and chlorine residuals under regulatory approvals, demonstrated compliance with operating requirements.
- Laboratory operations upheld rigorous quality standards, supporting operational decision-making with accurate and reliable data.

Incident Reporting:

- One low-pressure event was reported on July 25, 2024, in accordance with the Safe Drinking Water Act.
- Corrective actions included bacteriological testing and system restoration.
- Follow-up results confirmed continued safety of the drinking water supply.

Environmental and Safety Management:

- Routine internal compliance reviews confirmed alignment with regulatory and operational requirements.
- One minor non-conformance and one improvement opportunity were identified in internal environmental evaluations and are being addressed.
- Worker health and safety practices were supported through updated documentation and operational procedures, ensuring consistent standards across facilities.

COMMUNICATIONS

COMMUNITY PARTNERSHIPS:

IN 2024, UNION WATER SUPPLY SYSTEM INC. CONTINUED SUPPLYING THE TOWN OF WHEATLEY AFTER ITS PLANT FIRE AND SUPPORTED THE COMMUNITY OF HARROW DURING CLARIFIER AND RESERVOIR REPAIRS.



Community Engagement:

In 2024, UWSS Inc. participated in community events including Essex Fun Fest, Kids Camp Day, Belle River Splash Days, Kingsville Colasanti Cup, Kingsville Baseball Tournaments, and Kingsville Music Festival. At these events, the Hydration Station was provided to promote safe drinking water, encourage healthy hydration, support the use of reusable water containers, and offer residents opportunities to learn about water treatment and conservation.

Educational tours were also hosted for St. Clair College Power Engineering students and Canterbury ElderCollege participants, further enhancing public awareness and understanding of water operations. These initiatives demonstrate a strong commitment to engaging the community, promoting education, and advancing sustainability.



Communications and Organizational Updates:

UWSS Inc. enhanced community communications by improving the website, which includes a subscription feature and continues to be developed to improve user experience and engagement. In 2024, an active Facebook presence was maintained, with plans underway to expand to additional social media platforms to strengthen communication and engagement with the community.

Organizational capacity was strengthened with the addition of a Senior Manager – Infrastructure and a Human Resources Generalist, supporting operations, governance, and overall organizational development. These initiatives demonstrate a commitment to effective communication, engagement, and a strong organizational framework.

FINANCIALS

Financial Overview

UWSS Inc.'s financial performance for the fiscal year ending December 31, 2024, was consistent with budgeted expectations. Revenues covered operating costs and contributed to capital reserves, ensuring long-term sustainability.

Revenues

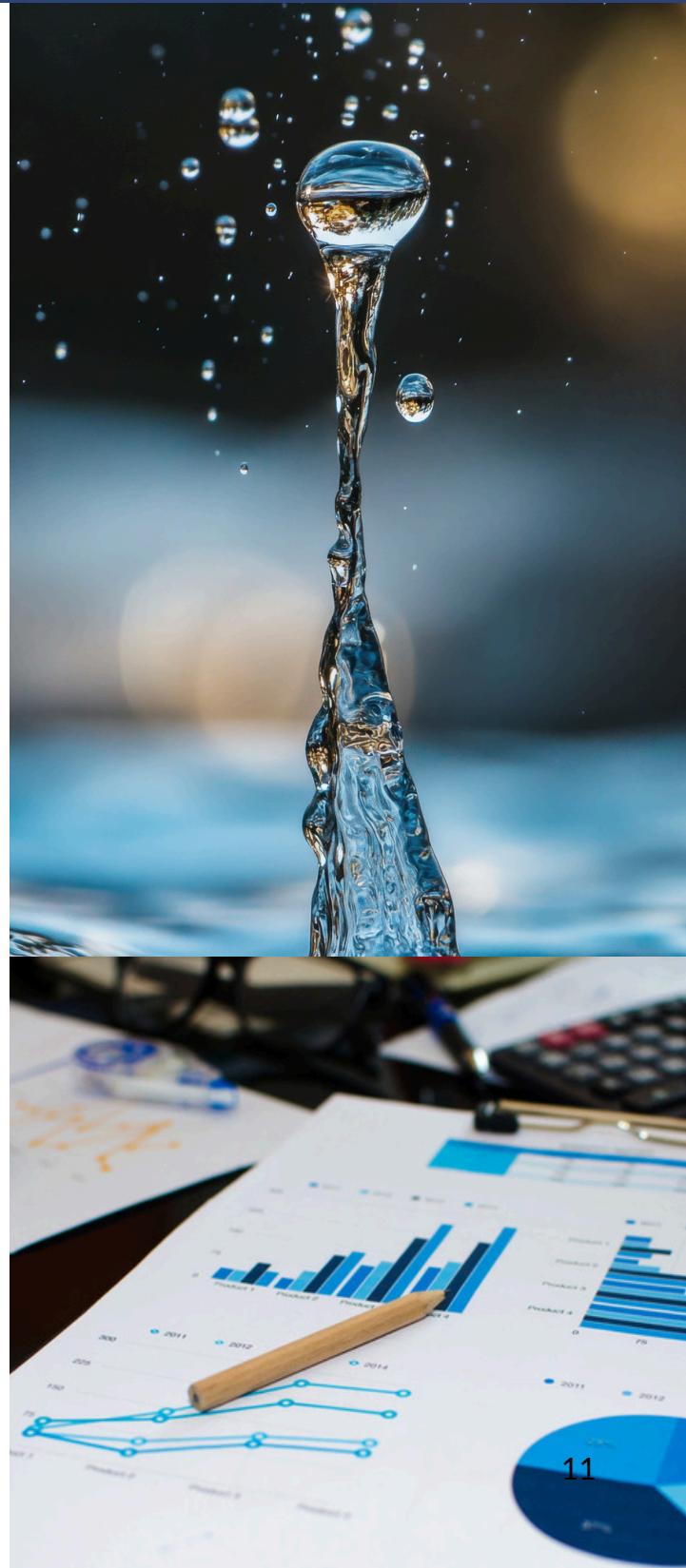
Total revenues totalled \$16.5 million derived from:

- **Water supply services** – \$15.2 million, representing a 4.4% increase from budget attributed to increased water supply demand and lower water losses.
- **Investment interest income** – \$1.2 million, a 51.8% increase from budget primarily due to conservative budget estimates, a strong cash position, and higher interest rates.
- **Rental income** – \$57,798, above budget as a result of annual rental income escalation adjustments.

Operating Expenditures

Operating expenditures totalled \$10.8 million, representing 65.3% of total revenues. Major expenditures included:

- **Water maintenance service** – \$4.1 million, representing a 4.3% increase from budget attributed to higher personnel costs due to additional personnel, as well as retroactive regulatory salary adjustment mandated in Ontario, and higher chemical costs.
- **Utilities** – \$1.6 million, reflecting a 5.2% decrease from budget due to energy efficiency gained from the implementation of a new rooftop unit.



ADMINISTRATION'S ANNUAL REPORT 2024

- **Interest on long-term debt** – \$758,539, includes interest paid on the payout of UWSS Inc. long-term debt.
- **Professional services** – \$460,122, representing higher than budget legal and accounting services from establishing UWSS Inc.'s new corporate contracts, settling long-term debt arrangements, and supporting governance requirements.
- **Repairs and maintenance** - \$426,106, representing primarily watermain repairs.
- **Wages and benefits** - \$334,496, representing lower than budgeted salaries and benefits of key administrative and operational personnel.
- **Administrative fees** - \$192,048, representing non-budgeted administrative costs of residential customer accounts managed by the municipalities.

Overall, total operating expenditures were below 2024 approved budget.

Capital Expenditures

Capital expenditures totalled \$5.9 million, funded through cash reserves. Notable projects completed or advanced include:

- **Reservoir #3** (\$2.5 million).
- **Dissolved Air Flotation Unit (DAF) #2** (\$1.3 million).
- **Back up portable generator – Albuna Tower** (\$398,000).
- **Travelling screen #4** (\$242,000).

A detailed discussion of the major capital projects is discussed in the Infrastructure section of this report.

Financial Position

At year-end, UWSS Inc. maintained a strong financial position with cash, operating and capital reserves of \$21.2 million. UWSS Inc. had approximately \$4 million in trade accounts payable and accrued liabilities associated primarily with the reservoir #3 project, and no long-term debt.

