CASE STUDY

Gemstone Corporation Saves 1758L in Daily Water Waste

CLIENT Gemstone Corporation **TYPE OF BUILDING** Multi-family Residential

SERVICES

Water Monkey & ODEUS Smart Water Monitoring **RESULTS & NOI ENHANCEMENT** Identified 1758L of water waste per day and \$2,567 in water savings per annum

Gemstone Corporation is an enduring beacon of excellence and innovation in the heart of Ottawa's vibrant real estate landscape. As a family-owned and operated entity, Gemstone boasts a rich legacy spanning over a decade with multifaceted experience encompassing commercial ownership, property management, and the transformation of Ottawa's most coveted residential addresses.

Within Gemstone's diverse property portfolio, an unexpected surge in water consumption created ripples of concern within one of their multifamily apartment buildings at 1431 Laperriere Ave. As a result, Gemstone turned to Connected Sensors to conduct a comprehensive investigation and find a solution to this pressing issue.

THE CHALLENGE

Until now, conventional troubleshooting methods such as searching for leaking toilets have yielded no definitive answers to the root cause of excessive water consumption across this six unit building.

To further exacerbate the issue, this building had only one water meter for the whole property, which had to manage six separate boilers. This situation made it impossible to pinpoint which unit was the cause of excessive water consumption. This emphasized the immediate need for an advanced water monitoring system that could provide granular insights into water consumption and anomalies across the property units.

THE SOLUTION

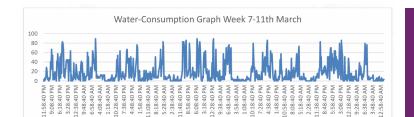
Connected Sensors implemented their smart water monitoring system to identify potential leaks and irregular usage in the building. First, they deployed the Water Monkey, a Smart Water Flow Meter, to gather detailed information on water flow rates and patterns. Concurrently, they strategically placed six ODEUS smart water leak detection sensors on the lines supplying water to each independent boiler. This comprehensive setup enabled them to track the entirety of water usage while also detecting any irregular patterns linked to specific units.

The Water Monkey provided real-time water consumption data at 10-minute intervals throughout the week, offering continuous insights. Simultaneously, ODEUS meticulously tracked water consumption per unit over seven days, documenting the daily usage patterns.

This extensive dataset emerged as an invaluable tool in identifying potential issues and making informed comparisons between the property's water consumption and industry benchmarks.

THE RESULTS

The weekly summarized view of hot water usage highlighted the disparity among units, demonstrating the extent of the problem. Specific units within the building exhibited notably higher hot water consumption rates compared to others. For example, Unit 5, as highlighted in the pie chart below accounted for nearly 30% of total water usage. This exceeds the national average for water consumption, which typically ranges between 9% and 12% for a family unit of 2.5 people.





Average water consumption per day = 2799.00 L

Property water consumption is above the recommended average of 125L PPD vs 199L PPD*

Identified 1758L of water waste per day leading to \$2,567 in water savings per annum.

*Total occupancy = 12 adults, 4 children.



Weekly % Hot Water Usage Per Unit		Sun.	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.
15%	Unit 6							
4%	Unit 5 Unit 4 Unit 3	Unit 6Unit 5	Unit 6Unit 5	Unit 6Unit 5	Unit 6Unit 5	Unit 6Unit 5	Unit 6Unit 5	Unit 6Unit 5
22% 29%	Unit 2	Unit 4Unit 3	Unit 4Unit 3	Unit 4Unit 3	Unit 4Unit 3	Unit 4Unit 3	Unit 4Unit 3	Unit 4Unit 3
		Unit 2Unit 1	Unit 2Unit 1	 Unit 2 Unit 1 	Unit 2Unit 1	 Unit 2 Unit 1 	Unit 2Unit 1	 Unit 2 Unit 1

The granular insight provided by Connected Sensors smart water monitoring system was pivotal in helping the property owner take targeted actions to address the issue and empowering them to have informed conversations with the appropriate tenants on water-saving initiatives. It serves as a testament to the positive impact that proactive measures can have on enhancing NOI and environmental sustainability, ultimately contributing to more efficient resource management.



