CASE STUDY

Applewood Heights Identifies $26,000 in Water Savings Per Annum

CLIENT	TYPES OF BUILDINGS	SERVICES
QuadReal Property Group	Multi-family Residential	Water monkey install, city meter monitoring
TOTAL NOI ENHANCEMENT	**START DATE**	**RESULTS**
$26,000 per annum	August 2022	Identified and resolved hot water holding tank leak

THE CHALLENGE

QuadReal Property Group is a global real estate investment, operating and development company headquartered in Vancouver. Their $27.4 billion real estate portfolio spans 23 global cities across 17 countries. Until now, QuadReal had little visibility into their water consumption at their multi-family sites and could not determine if they were experiencing water leaks or waste.

As a result, QuadReal turned to Connected Sensors to monitor the city water meters amongst several multi-family sites. This case study highlights Applewood On The Park.

THE SOLUTION

Connected Sensors deployed and installed their non-intrusive, battery-operated water monitoring device called the Water Monkey onto Applewood's compound water meter. Using LTE, the Water Monkey provided minute-by-minute insight into Applewood's water consumption data.

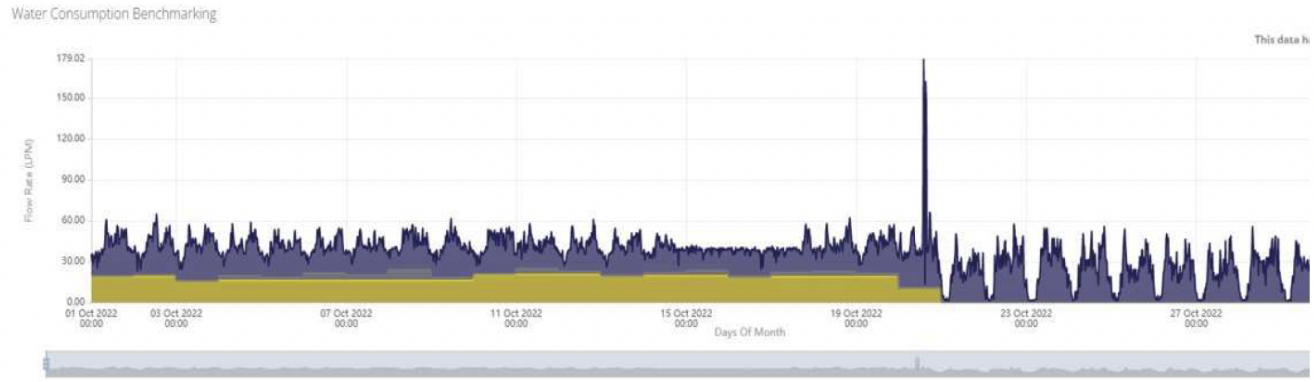
Once the WaterMonkey was installed, Connected Sensors provided YPM with a dashboard that tracked water consumption data in real-time and exposed issues such as continuous leaks, also known as runoff water.

CONNECTED SENSORS

PROJECT FINDINGS

After a continuous leak was identified by the Connected Sensors Analytics Engine, a QuadReal Operations Manager reported the issue to the maintenance department on site. A thorough walkthrough of the area determined that the hot water holding tank had a leak causing the wastewater to go directly into the drain stack. This leak would otherwise go unnoticed without a water monitoring and leak detection system.

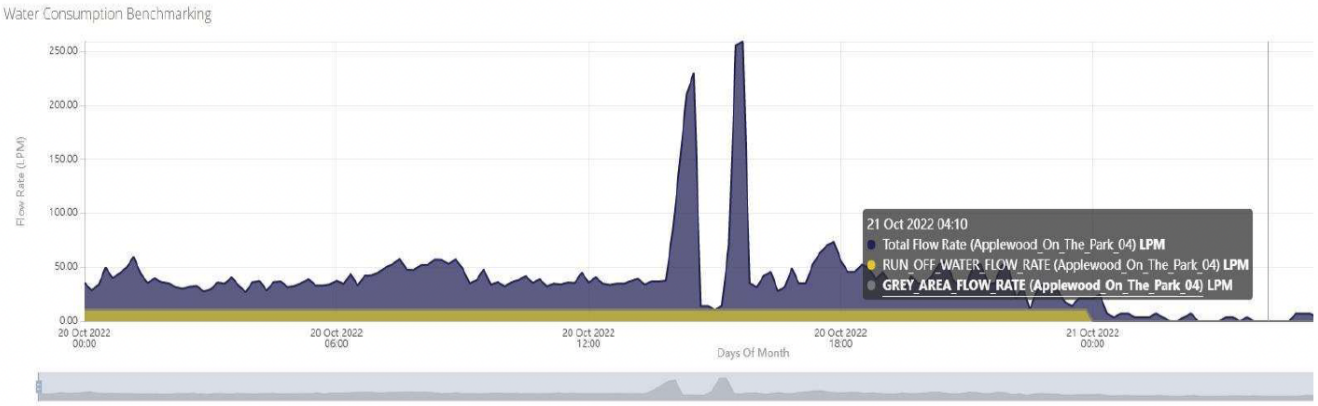
BEFORE & AFTER LEAK



The purple on the graph represents the total consumption of water. The yellow on the graph represents the continuous water flow.

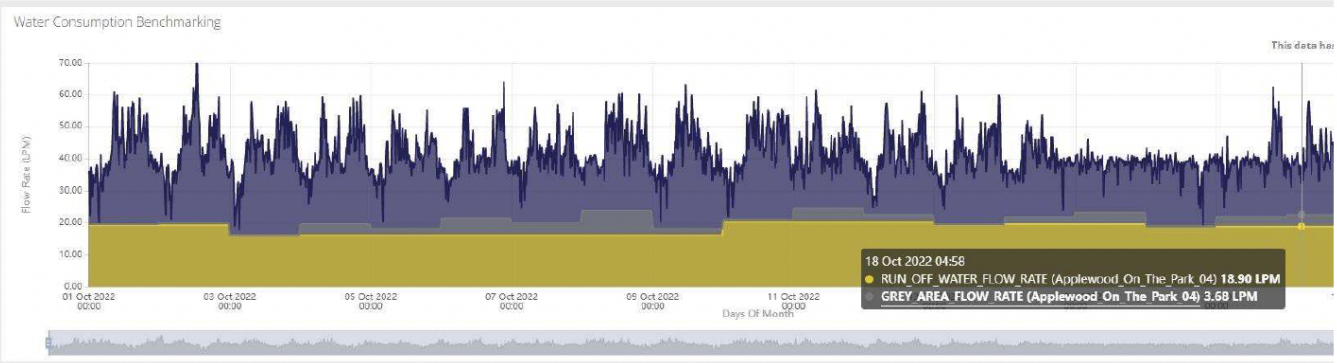
Graph 1 clearly illustrates that before October 20th, 2022, a significant amount of water was leaking. The purple spike seen on October 20th indicates refilling the hot water tank after the leak was repaired. The absence of yellow and the small peaks and valleys of purple after October 20th suggest that the leak was repaired.

LEAK RATE OF 0 LITERS PER MINUTE



During the night of October 21st, 2022, we saw the water consumption dipping to 0, indicating that the continuous leak had been resolved.

RUN OFF WATER - 18.9 LPM



The cursor hovering over the graph identifies the continuous leak rate of 18.9 LPM monitored consistently daily.

PROJECT FIX

The maintenance department dispatched the mechanical contractor, who drained the hot water tank and relined the necessary area. The mechanical contractor tested the site to confirm the repairs were successful, then refilled and commissioned the tank.

PROJECT SAVINGS

When annualized, the savings represent approximately $26,000.

The above graph indicates the magnitude of the leak of 18.9 litres per minute. Over a year, this represents over 9,900,000 liters of water or 9,900 cubes of water. The water and its wastewater in the Region of Peel are estimated to be a combined $2.7/cubic meter resulting in an estimated cost savings of $26,000 per annum.

FUTURE OPPORTUNITIES

Like car engines, water systems are dynamic. They have moving parts and fluids continuously, resulting in long-term maintenance and repair requirements. The difference here is that in today's world, we can rely on our car and its built-in "smart technology" to give us the necessary information to make decisions on our following routine or urgent repair requirements. However, until now, such solutions were not readily available for building plumbing infrastructure. Our experience has been that problems and resolutions such as these will continue to occur regularly without the proper technology in place. This is why using the Connected Sensors Analytics Engine alongside the Water Monkey for macro insight and ODEUS for a more targeted approach is necessary to help building owners manage what they measure when it comes to water.

CONNECTED SENSORS

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