

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades, set against a clear sky. The image is partially obscured by large, overlapping geometric shapes in shades of green, purple, and white.

BUYER'S GUIDE

Comprehensive Water Management

Proactively address water inefficiencies
and threats to reduce risk and safeguard
property value.



CONNECTED SENSORS



Turn Water Woes into Wins

Picture this: a bustling multi-dwelling building where people go about their day, completely unaware of the ticking time bomb beneath their feet. A hidden water leak has been silently draining resources, sending water bills through the roof and slowly eroding the building's infrastructure. And that's just one of the threats lurking beneath the surface.

Water issues don't stop there. Inefficient water usage is quietly wasting gallons, while the looming danger of floods could turn a property owner's worst nightmare into reality in an instant. These are the challenges that landlords and property managers face every day, often leaving them feeling like they're constantly battling an invisible enemy.

But here's the good news: with the right tools, you can flip the script and turn these water woes into wins. Smart water management isn't just a buzzword; it's your secret weapon against leaks, waste, and floods.

In this guide, we're diving into everything you need to know about smart water management systems. We'll break down how these solutions not only protect your property but also deliver a solid return on investment (ROI). Get ready to discover how you can take control, save money, and make your property more sustainable—all with a smart water management strategy.

Understanding Water Risk

From hidden leaks to unexpected floods, water-related issues can cause significant damage, disrupt operations, and drain financial resources. Here's a closer look at the key sources of water risks that property managers must contend with:

Water Waste

Water waste is one of the most pervasive risks, often driven by factors that can quickly go unnoticed. Leaky fixtures, outdated plumbing systems, and inefficient irrigation practices are prime culprits. When faucets drip, toilets run, or irrigation systems overwater landscapes, gallons of water are wasted daily. This increases utility bills and depletes valuable resources, putting a strain on the environment and the property's finances.

Leaks

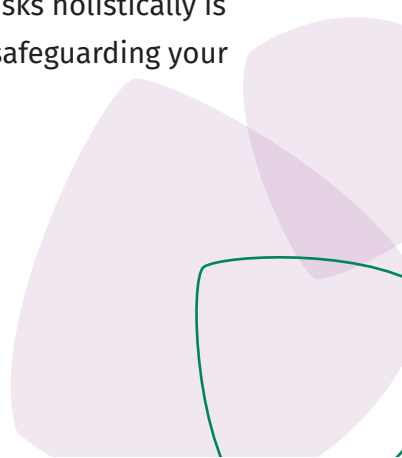
Leaks are a hidden but potent threat. They can occur anywhere—from small, undetected drips behind walls to significant pipe bursts. Even minor leaks, when left unchecked, can cause extensive damage over time, undermining the building's infrastructure, leading to mold growth, and skyrocketing repair costs. Leaks can also waste significant amounts of water, compounding the financial and environmental impact.

Floods

Floods represent the most severe water risk, with the potential to cause catastrophic damage. They can destroy property, disrupt operations, and result in hefty repair bills, whether due to extreme weather events, burst pipes, or sewer backups. The unpredictability of a flood makes them particularly dangerous, as they can occur with little warning and cause widespread devastation in a short amount of time. Managing this risk requires proactive measures and systems designed to respond swiftly to water emergencies.

The Intersection of These Risks

These water risks—waste, leaks, and floods—are closely linked. A small leak can lead to inefficiencies, drive up water bills, and, if left unchecked, escalate into a flood causing extensive damage and costly repairs. Addressing these risks holistically is essential for minimizing financial impact and safeguarding your property.



Key Components

- 1 Smart Water Flow Meter
- 2 Smart Water Flow Control for Toilets
- 3 Smart Leak Detection Sensor
- 4 Smart Flood Detection Sensor
- 5 Robust Network Infrastructure
- 6 Automated Logic
- 7 AI-Driven Data Platform

What is a Smart Water Management System?

A Smart Water Management System is a powerful, all-encompassing solution tailored to address every aspect of water management for your property portfolio. This system integrates advanced technology with strategic components to tackle head-on water inefficiencies, leaks, and flood risks. Continuously monitoring and analyzing water usage patterns delivers real-time insights that empower you to make informed decisions, optimize water consumption, and detect potential issues before they escalate.

Smart Water Flow Meter

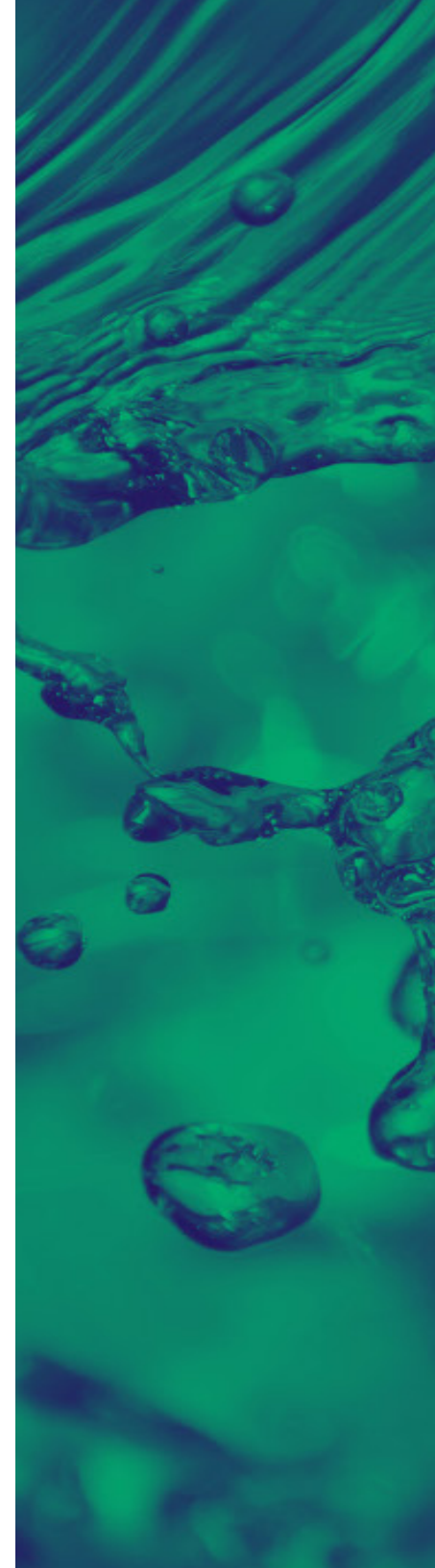
A Smart Water Flow Meter is an advanced device designed to measure and monitor water flow accurately. It provides real-time insights into water consumption, flow rates, and usage patterns. It enables users to remotely access and analyze data, detect leaks, and make informed decisions for efficient water management and risk mitigation.



Water Monkey

The Water Monkey provides real-time insights into water consumption and leak detection.

- ✓ Compatible with most meter makes and models
- ✓ Integrates with existing infrastructure
- ✓ Easy to install - No wiring or pipe cutting
- ✓ Adaptive AI monitoring
- ✓ Real-time email, SMS, & telegram alerts
- ✓ Day, time, and volume threshold alerts



Smart Water Flow Control for Toilets

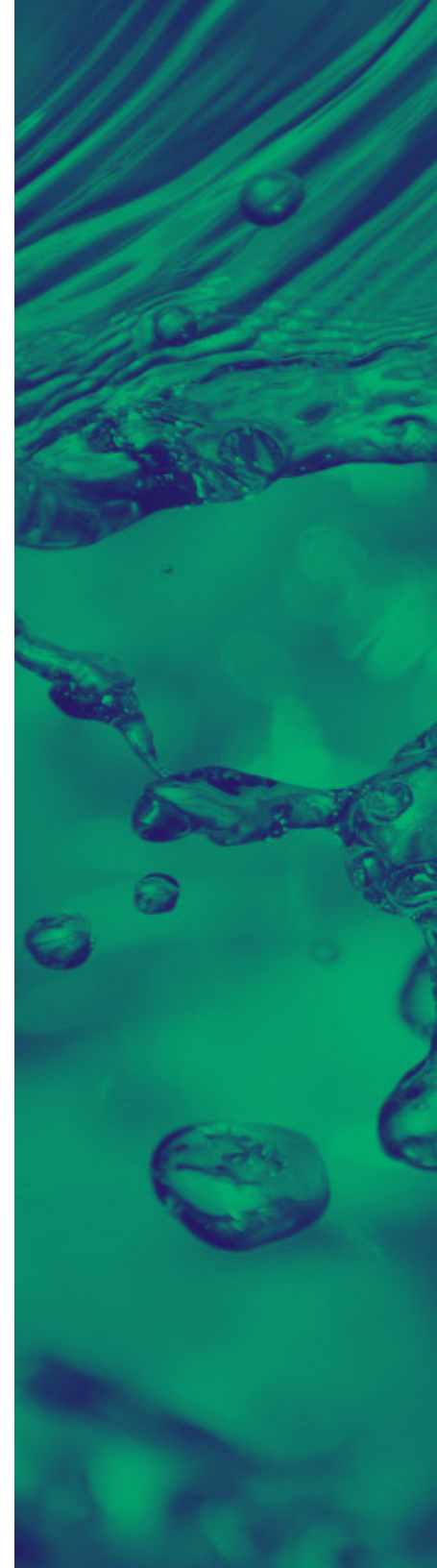
This smart water-saving device for toilets automatically manages water flow, activating only when a user is present and shutting off immediately after use, dramatically reducing water waste. Perfect for both residential and commercial buildings, this device is especially suited for aging or existing infrastructures that are prone to leaks and inefficiencies.



Water Warden

By targeting one of the most common sources of water waste, toilets, the Water Warden conserves resources and contributes to significant cost savings over time.

- ✔ Automatic water control
- ✔ Non-invasive PIR sensor
- ✔ Leak detection and audible alarms
- ✔ Easy to install - no professional plumbing required



Smart Water Leak Detection Sensor

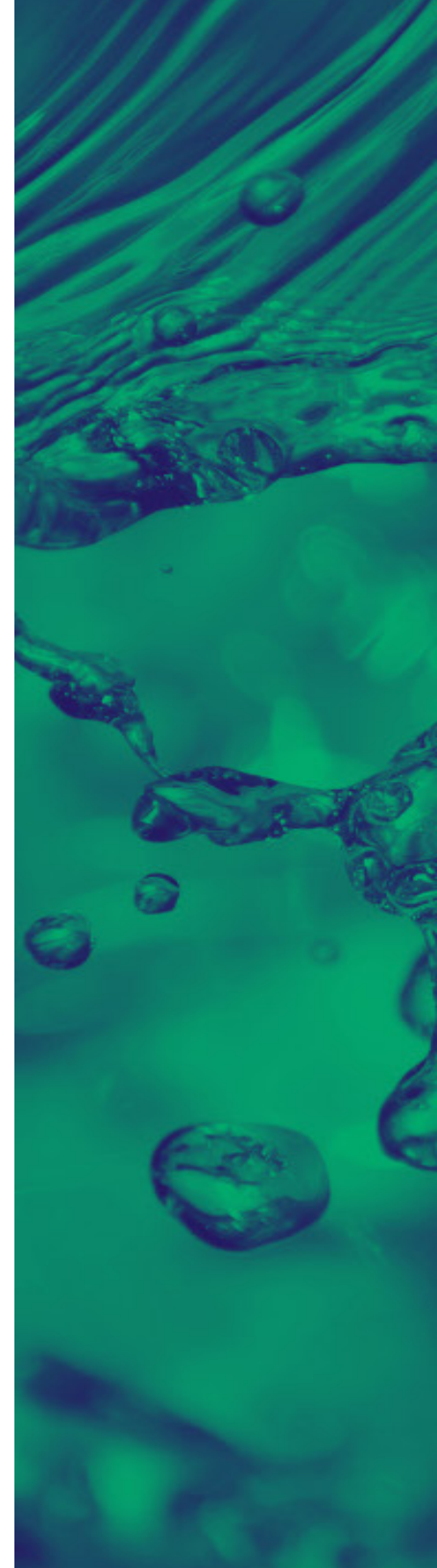
A Smart Water Leak Detection Sensor is an advanced device designed to identify water leaks. It provides granular litre-by-litre insights into water usage to help detect burst pipes, leaks, and irregular consumption at the source. It also enables users to set up instant alerts about unusual usage patterns and leaks to empower you to take immediate action.



ODEUS

ODEUS is a point-of-use clamp-on smart water leak detection sensor that offers unprecedented insights into your water usage

- ✔ Always-on active water detection
- ✔ AI and machine learning analytics
- ✔ Waterproof enclosure (IP54)
- ✔ No plumbing / electrical technician required
- ✔ Compatible with various pipe sizes and materials
- ✔ Operates over LoRaWAN backed by LTE
- ✔ Bluetooth Low Energy (BLE)



Smart Flood Detection Sensor

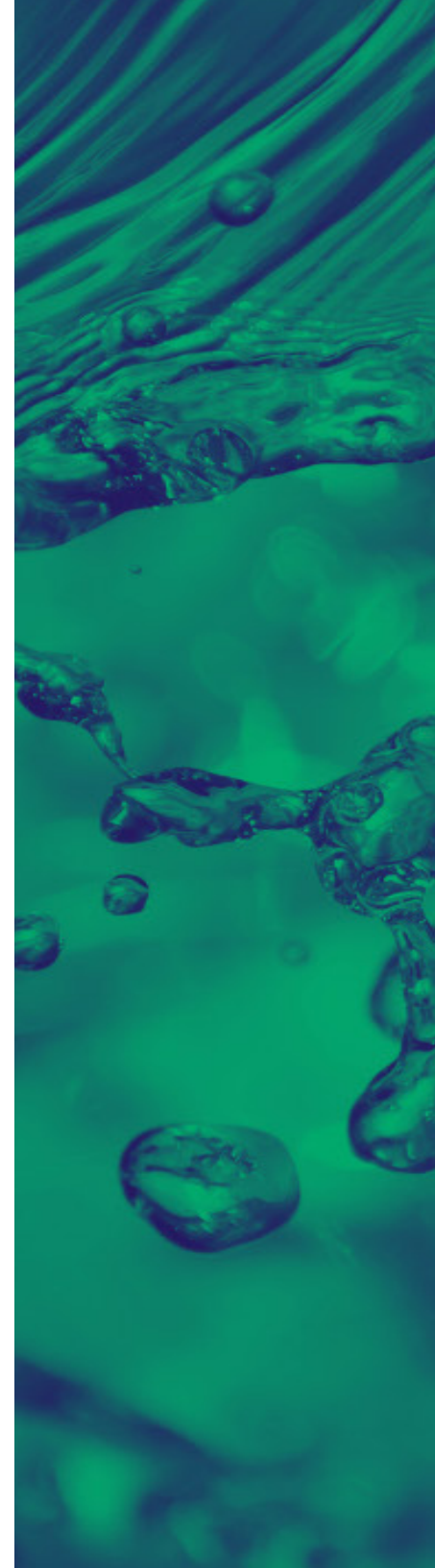
Flood Detection Sensors are the "eyes and ears" of your flood prevention system. They are strategically placed in areas prone to water leaks or flooding, such as basements, utility rooms, or under sinks. They continuously monitor for any signs of water intrusion, including leaks, drips, or rising water levels. When triggered, these sensors send immediate alerts to the system's control center, initiating rapid response protocols.



Water Sniffer

The Water Sniffer senses water precisely where it's needed, providing comprehensive coverage.

- ✓ Precise flood and leak detection
- ✓ Temperature, humidity, and barometric pressure sensors
- ✓ Easy-to-install
- ✓ Connects to AI-driven platform
- ✓ Long-range connectivity
- ✓ Up to 10-15 year battery life



Robust Network Infrastructure

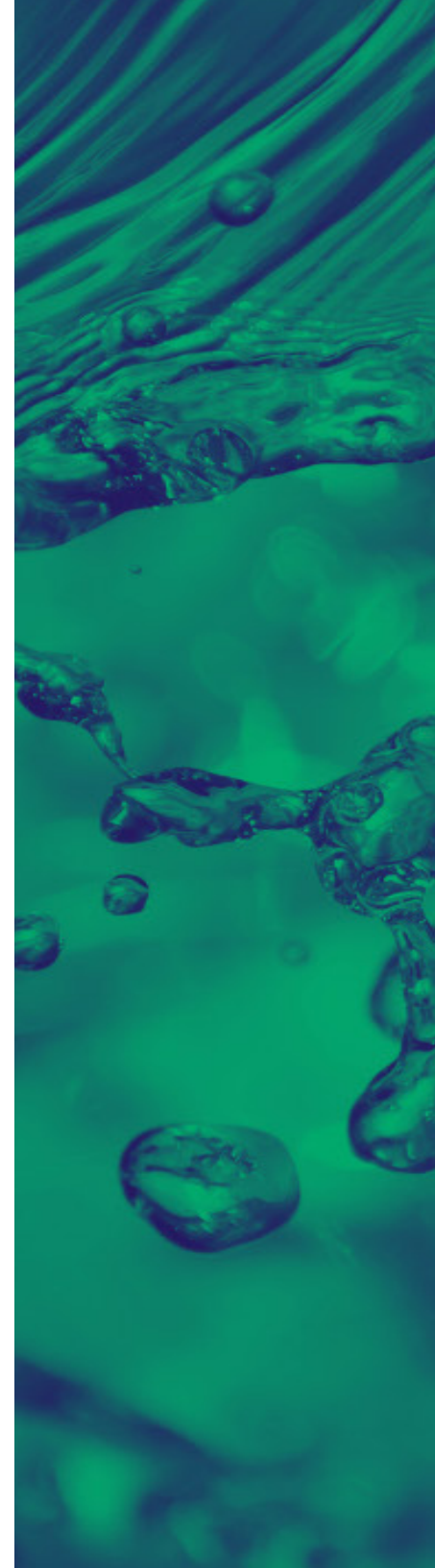
A robust network infrastructure forms the backbone of the water monitoring system. It includes networking hardware, such as gateways and antennas and communication protocols, to ensure seamless connectivity between all system components. A reliable network infrastructure is essential for real-time data transmission, remote control, and system reliability. Redundancy and failover mechanisms are incorporated to enhance system resilience.



Mikrotik Gateway

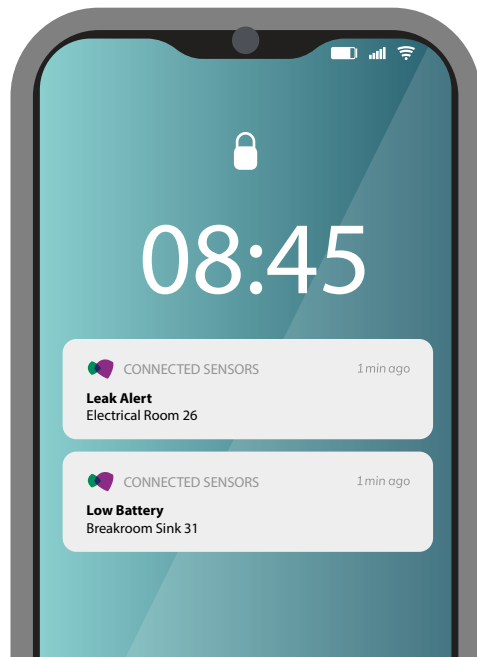
An out-of-the-box IoT Gateway and robust antenna for powerful and reliable long-range connectivity.

- ✓ All-in-one: LoRa, CAT-M/NB, 2.4 GHz wireless, Bluetooth
- ✓ Omni-directional antenna
- ✓ 2x 100 Mbps Ethernet Ports
- ✓ 5V MicroUSB In
- ✓ Supports 8 different channels, Listen Before Talk (LBT), and spectral scan features



Automatic Logic

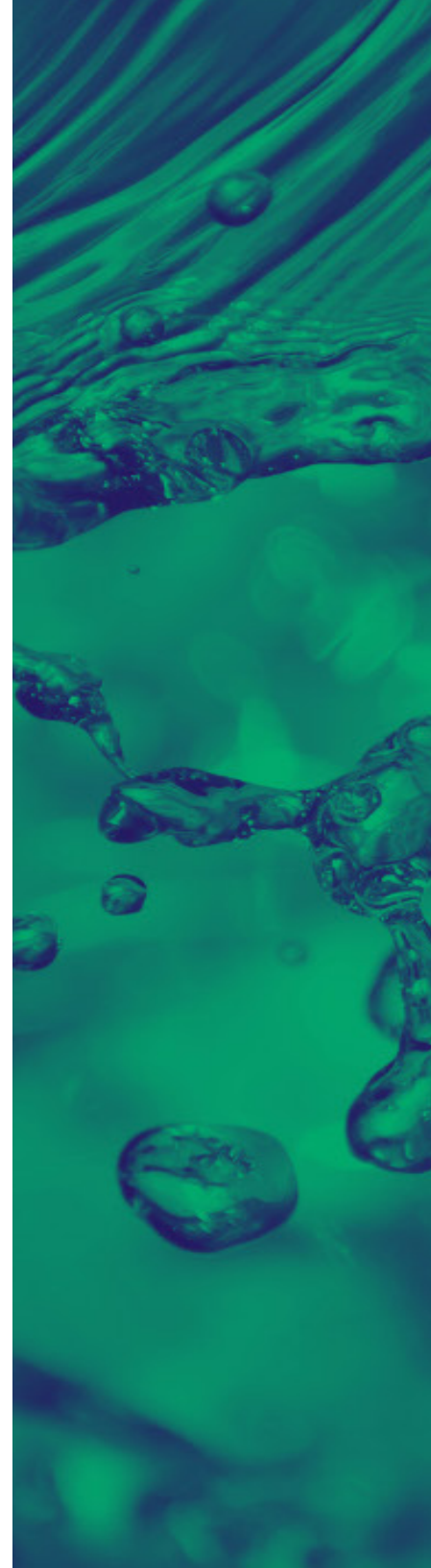
Automated logic refers to the water monitoring system's intelligent programming and decision-making capabilities. It involves algorithms and rules dictating how the system responds to sensor inputs and events. Automated logic ensures that the system can take immediate and appropriate actions, such as sending alerts without human intervention when a potential leak is detected.



Connected Sensors Automatic Logic

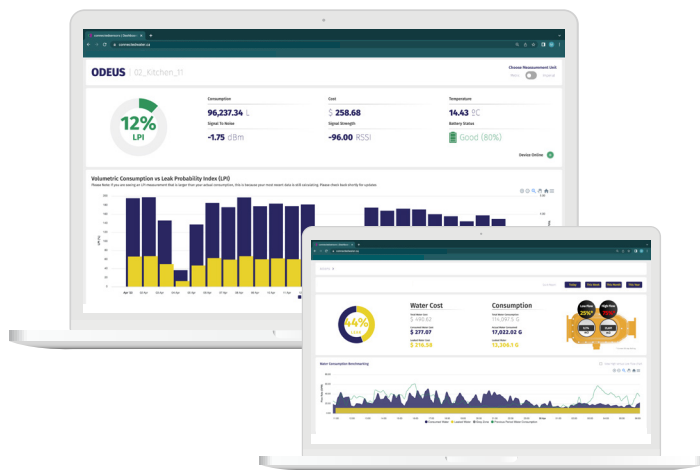
Respond to events before costly water waste occurs

- ✓ Early warning alerts
- ✓ Customizable thresholds
- ✓ Automatic logging



AI-Driven Platform

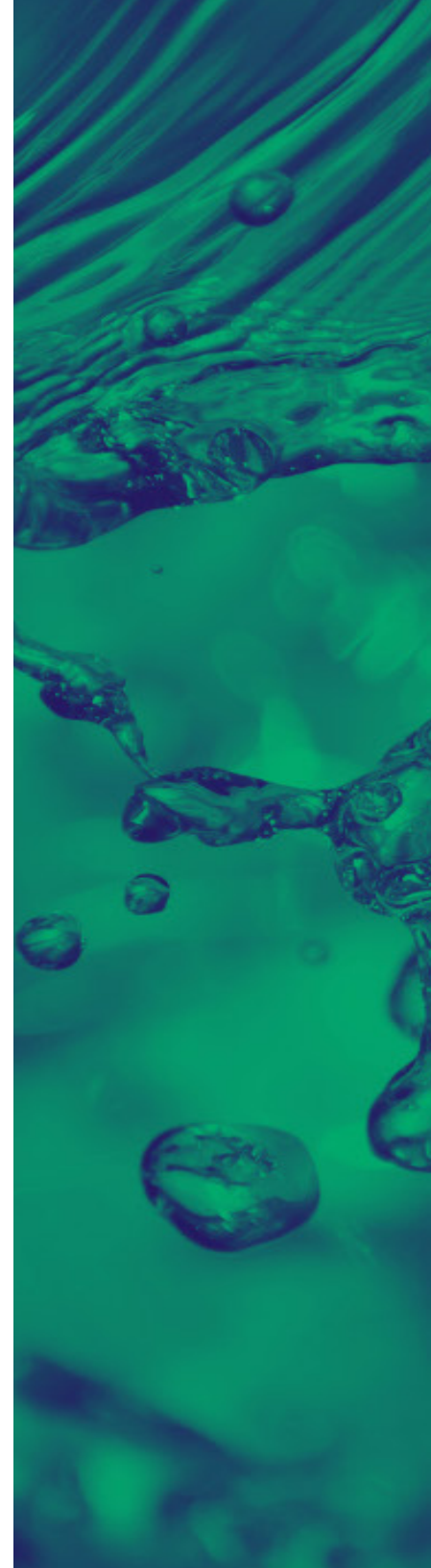
An AI-driven data platform is a sophisticated software component that processes, analyzes, and interprets data from smart sensors, and other system components. It employs artificial intelligence and machine learning algorithms to identify patterns, anomalies, and potential risks. This platform can provide predictive insights, helping property managers and owners make informed decisions to prevent water waste and optimize system performance proactively.



Connected Sensors Dashboard

Round-the-clock monitoring and powerful analytics.

- ✔ Real-time monitoring
- ✔ Leak probability indexing
- ✔ Cost and consumption overview
- ✔ Water usage benchmarking
- ✔ Per unit analysis
- ✔ Unified sensor insights



How Much Does a Water Management System Cost?

Our systems are not only built to ensure long-term water management success but also come with a transparent, predictable pricing model. We understand that property owners and managers prioritize solutions that offer both immediate and sustained value. That's why each system is custom-configured based on the number of units in your property, ensuring you're only paying for what you need—no unnecessary extras, no hidden costs.

But we know things change. That's why our systems are designed with flexibility in mind. You can seamlessly add on components as your property's needs evolve, without worrying about complex upgrades or surprise costs. This future-proof approach helps you scale your water management efforts efficiently, protecting your investment as your property grows.

Our system comes with a 10-year contract. Installation and an annual inspection is included in the pricing. This ensures your system is always operating at peak performance with minimal effort on your end. And because all costs are built into the contract, you can plan your finances with confidence, knowing there won't be any unexpected maintenance fees or hidden charges

down the road. We provide the support and expertise to keep your system—and your investment—running smoothly, year after year.

Included Components (E.g 100 Unit Multi-Dwelling)

	Devices Included
Water Monkey	1 device
Water Sniffer	25 devices
Gateway	3 devices
ODEUS	17 devices
Water Warden	1.25 devices

Pricing Packages

No. of Units	Cost Per Unit Per Month
100-249	\$11
250-499	\$8.30
500+	\$7.50

Installation

Installation comes included with your smart water management system, ensuring a hassle-free setup from start to finish. The system, along with all necessary components, will be shipped directly to your property. Each sensor is preconfigured within our dashboard for easy integration, with locations pre-assigned, clearly labeled, and ready to go. Sensor gateways are also prepared for seamless installation by our team of experts or certified contractors.

In addition to the equipment, the installation covers all electrical and mechanical costs, ensuring everything is operational and optimized for long-term performance.

- ✔ Conduct notification/configuration tests
- ✔ Execute network tests
- ✔ Where applicable, perform integration tests to ensure the system is operating as expected

Annual Inspection

An annual inspection of the leak detection system by a certified professional is included with your system package. To maintain warranty, each year, a certified professional must:

- ✔ Conduct a thorough test of the leak detection system
- ✔ Perform sensor alarm/resistance tests





What is the ROI of a Smart Water Management Solution

ROI of a Smart Water Management Solution

Investing in a Smart Water Management System is a strategic financial decision that can deliver substantial returns across multiple fronts. By addressing water inefficiencies, leaks, and flood risks, this system can transform your property's financial outlook, enhance its value, and fortify its resilience against unexpected water-related challenges. Let's dive into how each component contributes to an impressive ROI.

Reduced Water Bills

Consider this scenario: At any given moment, one in five toilets leaks. Now, let's examine a typical multi-residential building with 300 toilets installed. If we apply this statistic, it means that at any given time, 20% of these toilets are leaking, amounting to a staggering 60 toilets in constant disrepair.

Each moderate toilet leak has the potential to squander a substantial 6,000 gallons of water per month. When we consider water prices, for example, in Toronto, which are \$0.01395781 per gallon, this translates to a monthly cost of \$84 per leaking toilet. In the context of our sample building, where we have 60 toilets experiencing leaks, this

equates to a significant monthly loss of \$5,024.

The financial impact becomes even more evident when we extend this calculation over a year.

A whopping \$60,297 is lost annually due to toilet leaks in our sample multi-residential building.

Smart Water Management Systems are crucial in reducing water waste by identifying inefficient infrastructure and potential leaks that might go unnoticed for extended periods.

This proactive approach ensures that every drop of water is accounted for and used efficiently, leading to substantial savings on water bills.

Increase in Property Value & Financial Leverage

The correlation between reduced water bills and increased property value holds significant relevance.

ROI of a Smart Water Management Solution

Let's expand on the above example:

Let us assume that you own a property that annually pulls in \$200,000 in revenue and incurs \$100,000 in operating expenses. In this circumstance, it will have a resulting NOI of \$100,000. With a capitalization rate of 4%, the building's initial market value is 2,500,000.

If the building implements the water-saving measures above that save \$60,297 annually, this would increase the NOI to \$160,297 and increase the market value to \$4,007,425, leading to \$1,504,425 in asset value appreciation.

This higher property value also equates to an additional \$1,130,568 in financial leverage that a property owner could use to refinance the property at its new value, obtain a loan with more favorable terms, or secure additional funds. This cash can then be reinvested into the property for long-term capital improvements, used to purchase additional properties, or deployed into other ventures, diversifying income sources and spreading risk. The extra leverage also means property

owners can negotiate better interest rates with lenders due to the lower loan-to-value ratio, which reflects a more secure investment for the lender.

Overall, water monitoring and conservation initiatives unlock strategic financial opportunities that can significantly strengthen a property's market standing and profitability.

Reduced Insurance and Risk

Condos and high-rises face a 14% chance of experiencing a water-related claim annually, with such incidents occurring roughly once every seven years. Given that water damage accounts for 48% of all claims in the built environment, mitigating this risk is essential.

A Smart Water Management System can significantly improve your insurance costs and risk profile in several key ways:

Escalating Insurance Costs

Insurance premiums have steadily risen, with some

ROI of a Smart Water Management Solution

markets seeing increases as high as 780%. Implementing a Smart Water Management System reduces your risk profile, making your property more appealing to insurers and potentially lowering premiums.

Limited Insurance Options

Some property owners struggle to secure coverage or face outright denials in today's market. By proactively managing water risks, you can enhance your risk profile, increasing your chances of obtaining coverage and gaining a competitive edge.

Costly Water-Related Losses

Water-related claims typically range from \$150,000 to \$250,000, with costs surging by 400% over the past decade. A Smart Water Management System helps minimize the frequency and severity of these claims, easing the financial impact.

High Deductibles

Property insurance deductibles have skyrocketed, often reaching \$250,000 or more. A Smart Water Management System can help you avoid costly out-of-pocket

expenses by preventing water issues before they escalate into significant claims.

Higher Tenant Attraction & Retention

In today's market, tenants are more environmentally conscious than ever, and they're looking for properties that align with their values. A Smart Water Management System signals your commitment to sustainability, which can be a major draw for tenants who prioritize eco-friendly living. This doesn't just attract new tenants; it also helps keep current tenants satisfied, reducing turnover and associated costs like marketing, unit preparation, and screening. Furthermore, sustainable practices can justify higher rental rates, directly boosting your NOI and contributing to long-term financial stability. According to industry reports, green-certified buildings can see up to a 31% increase in sales values, 23% higher occupancy rates, and an 8% rise in rental income.

ROI of a Smart Water Management Solution

Opportunities for Grants, Tax Incentives & Rebates

A Smart Water Management System can also open doors to various financial incentives. Many regions offer grants, rebates, and tax incentives to support sustainability initiatives, including water conservation. These programs can significantly offset the upfront costs of installing your system, enhancing your ROI right from the start. Beyond immediate savings, these incentives contribute to the overall financial health of your property, reducing operational expenses and enhancing your reputation as a forward-thinking, environmentally responsible business.

Operational Efficiency and Preventive Maintenance

A Smart Water Management System doesn't just react to problems—it helps you prevent them. By continuously monitoring water flow and usage, the system identifies minor issues before they escalate into significant problems, reducing the need for costly emergency repairs. This proactive approach extends the lifespan of

your plumbing infrastructure, lowers maintenance costs, and ensures that your property operates smoothly and efficiently. The savings on operational costs and reduced water waste contribute directly to your bottom line, further enhancing the system's ROI.

Final Thoughts

In property management, smart water management systems are indispensable tools for safeguarding your investments. The hidden threats of water leaks and inefficient water management can lead to substantial financial losses, damage to infrastructure, and environmental harm. However, landlords and property managers can become architects of intelligent water management by embracing proactive strategies and adopting state-of-the-art technology.

Contact the Connected Sensors team if you're ready to take the next step in proactive smart water management.



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