

5 Tips to Minimize Security Risks at Water Utilities



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The US Cybersecurity and Infrastructure Security Agency (CISA) considers the ability to both “supply water” and “manage wastewater” National Critical Functions – functions of government and the private sector so vital to the U.S. that their disruption, corruption, or dysfunction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof. CISA further identifies water contamination, physical attacks, natural disasters, and cyberattacks among the risks to this critical infrastructure sector. As such, the security solutions implemented here must be multifaceted and adaptable, covering a wide range of threats while remaining flexible to address evolving risks.

In this tip sheet, we present five essential strategies to help minimize security risks at your water treatment plant. By following these recommendations, you can enhance the resilience of your water or wastewater facility, safeguard the purity of the water supply, and ensure the long-term well-being of your community.

- 1. Calculate and Compare Coverage Costs** – Water utilities are typically expansive facilities consisting of both indoor and outdoor infrastructure. Providing the most comprehensive and consistent video coverage and manned guard services across all areas can be cost prohibitive for most public works. Further, consider the implementation and maintenance costs of such solutions, including hardware, software, network infrastructure, installation, training, insurance, etc. Look for security solutions that function in all light conditions and even the most challenging environments to ensure you achieve the desired levels of surveillance at the best cost/performance ratio attainable.
- 2. Consider All Possible Threats** – As history has shown, some of the most dangerous threats to utilities are often the least sophisticated, and/or due to accidents or mechanical failures. Therefore, it is critical to implement security solutions that automatically identify a wide range of threats simultaneously. This includes those that address physical intrusions by bad actors, as well as potential leaks, fires, and other environmental risks. Some security solutions will even enable continuous monitoring of mission critical resources. The ability to monitor as many potential threats as possible enables a more cohesive, comprehensive approach to security that can help mitigate emergencies and contain both unexpected and long-term costs.
- 3. Eliminate False Alarms** – The vast majority of false alarms triggered by access control and surveillance systems are costly and largely preventable. False alarms are disruptive to daily operations and take the focus away from essential procedures. Frequent false alarms can even result in alarm fatigue, the dangerous phenomenon where individuals become desensitized to all alarms, even real ones, due to the frequency of false alarms. With the right security solution in place, it is possible to reduce false alarm rates by up to 95%, conserving valuable security personnel time and expenses.

4. **Integrate, Integrate, Integrate** – When searching for new physical security solutions, it is important that they integrate with both existing and new solutions. Not only does system integration simplify ease of use, it also enhances the overall performance and effectiveness of your security infrastructure. When your physical security solutions seamlessly integrate, they can share information and work in harmony to provide a more comprehensive and coordinated defense, as well as valuable business intelligence to improve future operations.
5. **See Beyond Traditional Security** - Guard services, access control systems, and video surveillance systems are largely ‘reactive’ in nature, primarily responding to security incidents and breaches *after* they have occurred. 3D LiDAR (Light Detection and Ranging) security solutions work differently, alerting the presence of perceived threats in real-time to help proactively prevent crimes and incidents from occurring or escalating further. This high level of proactive awareness also reduces false alarms, improves response times, and ultimately enhances the overall security posture of your water utility.

Quanergy is a leading provider of 3D LiDAR security solutions. Our Q-Track™ 3D LiDAR solution uniquely integrates Quanergy’s long-range 3D LiDAR sensors with advanced perception software to deliver extreme performance accuracy and cost-efficiency. Q-Track provides 360° coverage with up to 15,000 square meters of coverage per sensor day or night without the need for any supplemental lighting, and under virtually any environmental condition. Plus, Quanergy 3D LiDAR solutions are also not susceptible to occlusions caused by visual reflections, making them ideal for water treatment plants where reflections are an issue. Quanergy solutions also integrate with today’s top-market VMS systems and existing camera-based perimeter intrusion detection (PID) systems to create a fully operational physical security system.

We invite you to Contact Us today, to discuss how Quanergy Q-Track 3D LiDAR solutions can help dramatically improve security, operations and cost-efficiency at your water utility.