

Device Monitoring

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Case Study: Stormwater Pump Monitoring

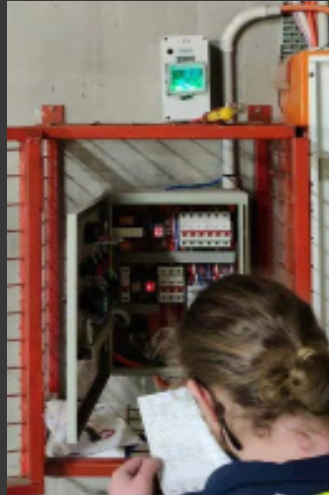
02 8033 3169

Problem

RSL Lifecare Tobruk in Austral experienced costly stormwater damage to the lifts due to flooded lift pits which damaged the lift equipment, requiring costly repairs (appr. \$50,000) and downtime to the lifts for residents (3-4 storey buildings).

The existing pump system required manual operation and maintenance, leading to high labour costs just to ensure the system was working as it should.

Due to the manual nature, actual observations are infrequent, which would often lead to overlooking flooding events and causing damage to the lifts.

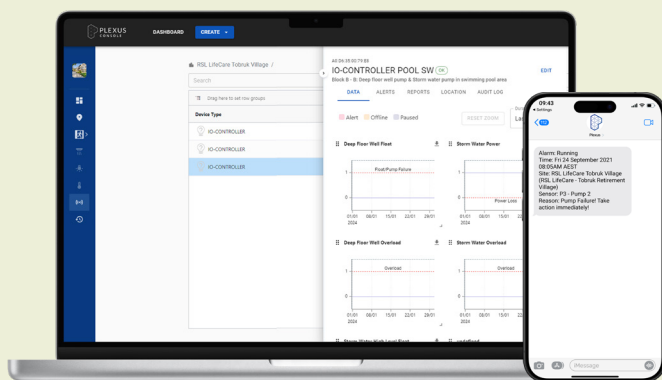


Pump Distribution Board



Tether installed on the stormwater pump in carpark located in a waterproof enclosure

Solution



- Real-time monitoring
- Alerts and Notifications
- Stress-free maintenance



Scan to find out more about this case study

The Tether solution addresses the challenge of managing water levels and pump status in buildings by utilizing the Plexus network for remote monitoring over the Internet.

In the event of a pump failure SMS and email notifications are sent to relevant staff, enabling timely preventative pump maintenance and minimizing the eyewatering costs from damages and emergency services.

Integration into pre-existing Plexus-enabled emergency lighting system at RSL Lifecare Tobruk, installation was straightforward and cost-effective, streamlining the activation, commissioning, and pump reporting across the facility.

RSL Lifecare's asset management team, responsible for overseeing a broad portfolio of properties, now receives emergency alerts via SMS and emails detailing when and how a pump has failed on site, allowing them to instantly rectify the issue. This proactive measure ensures timely preventive maintenance, stopping eye-watering damage costs to facility assets such as lifts and minimizing inconvenience to residents caused by asset downtime.

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Case Study: Wastewater Pump Monitoring

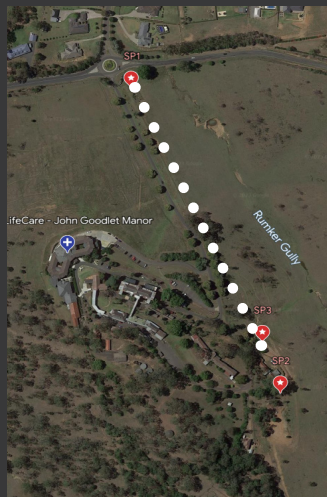
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Problem

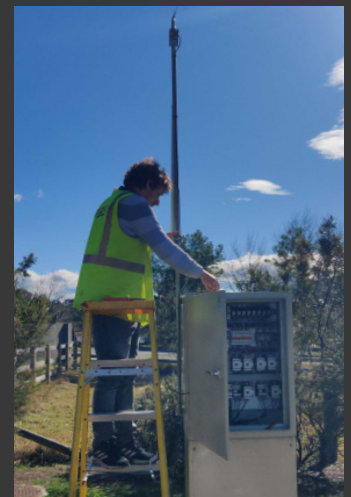
RSL LifeCare - John Goodlet Manor encountered significant challenges with their sewage pump system, leading to frequent overflow into their smaller collection tank. This issue not only caused a messy and labor-intensive cleanup process but also posed substantial environmental hazards. If left unaddressed, the overflow could contaminate the surrounding area, notably the Rumker Gully, potentially resulting in severe penalties from the EPA under the POEO Act, with fines amounting to \$1 million for water pollution offenses.

Previously, RSL LifeCare had deployed a 3G-based wireless monitoring system for the pumps. However, due to the considerable distance between sewage pumps (>500m), persistent signal interference issues arose. Consequently, data attenuation occurred, causing the system to frequently malfunction at best and completely fail to operate or report at worst.

Given these challenges, the implementation of a robust monitoring system became an urgent necessity.

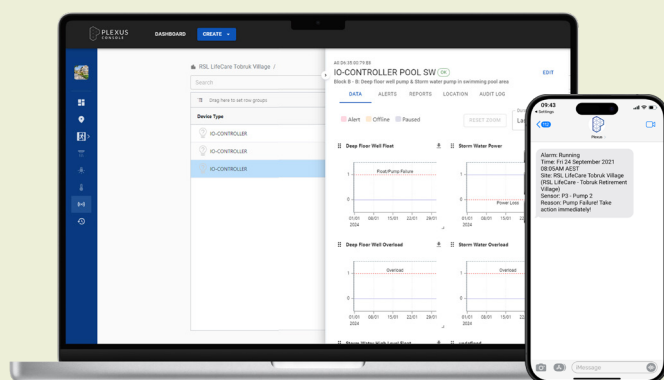


Over 500m distance between pumps



Distribution Board zoomed out shot of installation

Solution



- Real-time monitoring
- Alerts and Notifications
- Stress-free maintenance



Scan to find out more about this case study

The Tether solution effectively tackles the challenge of preventing sewage pump overflow by continuously monitoring pump and float levels using up to 6 input monitors. By seamlessly integrating into the building's wireless Plexus network, the system enables custom alerts to be sent to relevant staff members based on pump status, with live monitoring of the pumps and float levels accessible via the internet.

To compensate for the site's lack of existing Plexus infrastructure, each Tether was equipped with a long range antenna to wirelessly reach over 500m to the Gateway. Once connected directly to the pump and activated, the Tether promptly begins reporting pump and float switch status, with SMS and email alerts configured for the appropriate maintenance staff in case of failure or abnormality in operation.

With this implementation, RSL Lifecare's building manager and asset management team, responsible for managing a diverse portfolio of facilities, now receive immediate alerts via text and email detailing any pump failures onsite. This instantaneous and proactive approach enables swift intervention, ensuring timely preventive maintenance, averting potential environmental crises, and mitigating the risk of associated fines and penalties.

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Case Study: UV Sterilisation Monitoring

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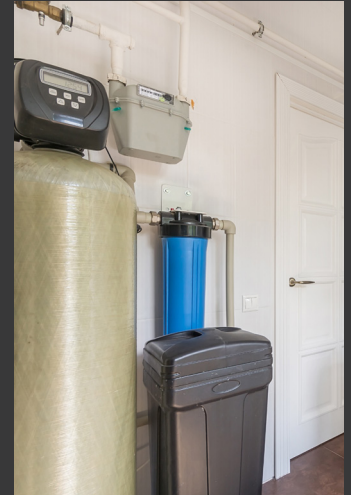
Problem

RSL LifeCare - ANZAC Village relies on a UV water treatment system to safeguard against water-related risks as part of their water risk management plan. Continuous operation of the UV lamp is vital for maintaining water sterility, particularly in the context of caring for vulnerable patients who are at increased risk of waterborne illnesses. Failure of the lamp could leave drinking water untreated, heightening the potential for outbreaks of bacteria like legionella.

Given the susceptibility of residents to such pathogens due to potential immunocompromised status, careful management of water sterilisation systems is paramount.

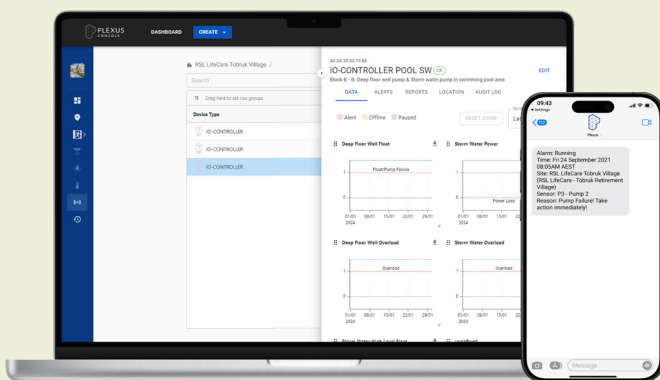


UV light system



UV Water Purification System

Solution



- Real-time monitoring
- Alerts and Notifications
- Stress-free maintenance



Scan to find out more about this case study

SmartBT addressed this challenge by deploying the Plexus Tether to monitor the status of the ballast powering the UV Lamp in the sterilisation system. Seamlessly integrating with the existing infrastructure, the Tether enables real-time monitoring and sends SMS and email alerts in case of lamp failure.

The implementation of the tether solution was both simple and cost-effective. Leveraging the pre-existing Plexus-enabled emergency lighting infrastructure, each Tether joined the Plexus network seamlessly. Activation merely required wiring on the Tether, completing commissioning, and initiating lamp status reporting.

With this solution in place, RSL LifeCare's asset management supervisor and team receive prompt SMS and email notifications in the event of UV sterilisation lamp failure. This proactive notification system empowers them to swiftly coordinate lamp replacement in the event of failure, mitigating the risk of infection spread to vulnerable residents susceptible to waterborne illnesses.