



Urban Catchment Water Quality Monitoring

Project background

The Western Sydney Parkland Sensor Network Project has rolled out a shared, scalable sensing and data network across eight local council in the Western Parkland City, Sydney. Technology deployed within this network collects data on some of the big issues impacting on city living.

As part of the project ICT International has installed a network of LoRaWAN based water quality monitoring stations in the Camden area. The South Creek corridor is central to the future sustainability and liveability of the Western Parkland City. Improving the health of waterways is also essential in protecting aquatic biodiversity and groundwater dependent ecosystems.



Monitoring and Network solution

Water quality data will be used to monitor the effect of development and urban growth in the South West Growth Area/upper South Creek catchment; with monitoring sites located along Kolombo Creek and South Creek providing publicly available near real-time data (updated at 15-minute intervals).

The public nature of the monitoring sites required a customised sensor and cable housing, and node mounting infrastructure solution. Supported by the S-NODE with LoRaWAN communications, sensors installed included:

- AWQ-C4E for water temperature, EC, salinity, TDS-KCl;
- AWQ-pH for pH, Redox;
- AWQ-DO for Dissolve Oxygen;
- AWQ-NTU for Turbidity

Data from the public LoRaWAN network (AS923 -managed by the public network provider, Meshed Pty Ltd), was handled by The Things Network (TTN) and displayed using thingsboard.io.

