



**DRAPPER  
ENVIRONMENTAL  
CONSULTANTS**

## Remote Water Level and Time-lapse Camera Monitoring Station Sandy Creek, Yatala

Drapper Environmental Consultants were engaged to provide real time, smart water level and velocity measurement monitoring for Sandy Creek, Yatala, QLD. The deployed systems provide real-time data for flow monitoring, helping to understand the complex and dynamic waterway in this location. In addition to the data collection, the systems incorporate an IP-rated camera to collect timelapse photos.



### Challenges

- The catchment is highly complex with a large industrial area upstream that responds quickly to rainfall.
- Survey data shows multiple potential secondary, ephemeral flowpaths.
- Flood modelling inputs relied upon for future projects uses several assumptions requiring clarification.
- No onsite power (240V).
- Heavily vegetated study area.
- Of concern Regional Ecosystems

### Solution

Three remote monitoring stations (12V) on the Telstra NB-IoT network configured to record data every 60 seconds and report in to the online Dashboard, from 15 min to daily data (depending on activation by an event). Water Level is measured by an ultra-low power “top-down” Ultrasonic sensor at 2 sites, and by a submerged Area-Velocity Sensor at the third. All sites have time-lapse cameras to visually confirm water level and waterway behaviour. The stations are IP68 rated, which means it can be submerged for up to 4 m of water for up to 4 days, though have been pole-mounted to minimise the likelihood of this happening. The stations can be accessed and configured remotely, which makes the systems not just ultra-low power but low maintenance as well.

### Key Features

- 12V or 5V power
- Solar charged
- IP68 rated
- IOT-enabled (in-built modem)
- Compatible with SCADA systems
- Ultrasonic water level & Area Velocity probes
- Time-lapse cameras
- Real-time alerts & updates
- Online Dashboard
- Multiple sensors possible

Drapper Environmental Consultants have over 30 years combined experience providing environmental services Australia-wide. The team are specialists in water, stormwater, wastewater, and environmental services. We design and supply the WATSOL Sewer Overflow technology.

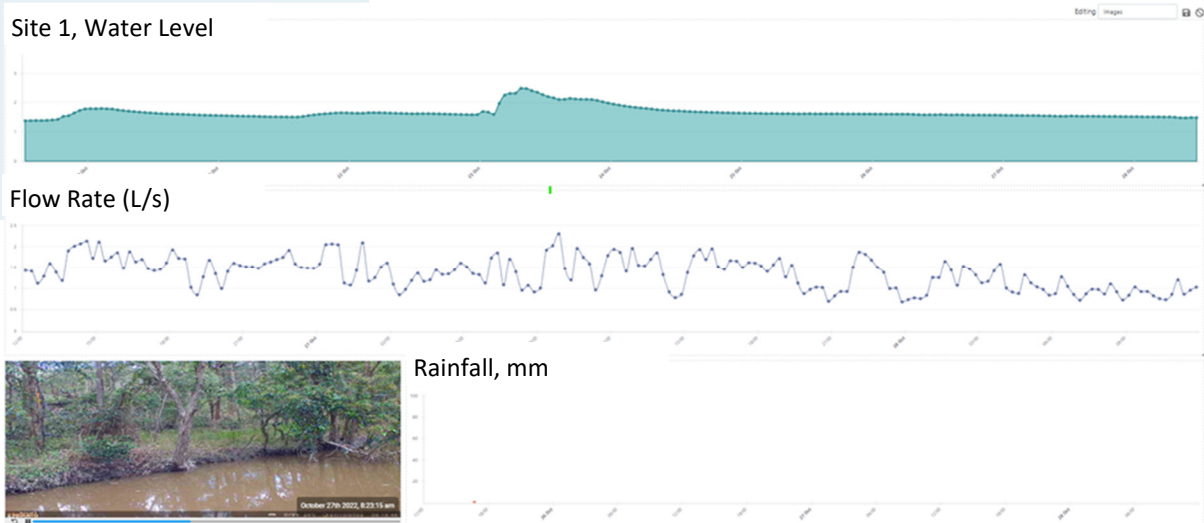
#### MISSION

Our Mission is to solve our client's challenges in the environmental, water, stormwater and wastewater fields by providing tailored, cost-effective, innovative solutions

## Online Dashboard

Data is displayed on an Online platform (Processr.io), fully customised to the client's needs. This provides real-time alerts as an event commences, and can assist Disaster Management Teams by issuing notifications as different levels are reached (eg. Alert, Prepare to Leave, Take Action, Road Flooded).

The Dashboard can be fully public, private or a hybrid depending on the sensitivity of the data collected.



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