



## Intelligent Networks and Digital Realities - Exploring a Geospatial Data and Analytics Future

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“Intelligent Networks and Digital Realities: How four projects demonstrate the value of capturing spatially accurate water infrastructure data in the field to deliver outstanding results across diverse business cases”

Water is such a fundamental element to underpin healthy and happy societies. If water is in short supply or of poor quality everyone and everything suffers. Every Council has a responsibility to ensure that existing assets are managed efficiently and effectively by maintaining them in a sustainable way and to ensure economic decisions are made for new assets while also mitigating the risk of storm events which may trigger floods, injury, and damage.

Growing Cities need to manage water fresh, waste and storm sources more effectively as an integrated view of a precious resource.

To optimise plans to enable Water Sensitive Cities, Community Health and Environmental Sustainability requires a dedication to obtain and keep current high quality data sets about the infrastructure.

This information then makes it possible to engage with experts to provide water monitoring for pollutants, network modelling for the future development decisions, as well as adopt mobile applications to streamline everyday maintenance operations with internal staff and contractors.

This presentation explores four engineering, environmental and community protection case studies and how spatially accurate data sets representing drainage networks and catchments have enabled diverse investigations for Local Government which cover:

1. Asset Management incorporating Strategic, Financial and Operational views
2. Environmental and Community Health (featuring Drainage network Pollutant tracking and reporting)
3. Hydraulic Modelling for Urban Planning for upstream development, climate change predictions for coastal communities and risk mitigation of flooding events.
4. Auditing irrigation assets above and below ground to reduce water loss and prioritise supply.

The presentation will also show how an Australian mobile workforce application can also help to keep everyone informed while conducting maintenance activities, and how pit installed sensors recording

observations along the network will in the future deliver online analytical portals to visualize the health of drainage network and related intelligence in real-time to prioritise response.

Our journey will demonstrate the value of high quality data capture services to establish the foundation of the 3D connected network is a onetime investment which will continually deliver many benefits for intelligent water management for all stakeholders in the future to establish Water Sensitive Cities.