

EXCELLENCE IN THE ENVIRONMENT AWARDS



COUNCIL NAME

Central NSW Joint
Organisation

WEB ADDRESS

www.Centraljo.nsw.gov.au

SIZE

47,000 square
kilometres

POPULATION

157,686

Regional Water Loss Management Hub

The Central NSW Joint Organisation's (CNSWJO) Regional Water Loss Management Hub Project sets a benchmark for regional water management, enhancing water security and resilience in Central NSW. A significant output from the project is the identification of a pathway, tools and resources to enable further rollout and embedment of water loss management practices in local water utilities across regional NSW.

Background

A comprehensive Water Loss Management (WLM) maturity audit conducted across member councils revealed significant water loss due to outdated infrastructure, lack of proper maintenance, and inefficient data management systems.

Data from the audit highlighted that non-revenue water loss accounted for a significant portion of total water usage, leading to an estimated annual financial loss of \$3,952,000 and 1,661,000 kWh of wasted energy. Findings also revealed that many councils lacked the necessary infrastructure and accurate data collection systems to manage water loss effectively.

Implementation and Outcomes

The project achieved significant milestones from January 2023 to June 2024. Key achievements included conducting water loss management maturity audits, implementing pressure management systems, and delivering targeted training programs to council staff. The project also established a regional reporting tool and automated data updates, leading to enhanced data accuracy and management across councils.

Unexpected outcomes included the realisation that many councils lacked the necessary infrastructure for effective water loss management, prompting immediate procurement and installation of essential equipment like pressure reduction valves and flow meters. Additionally, the collaborative approach fostered stronger relationships among councils, leading to shared learning and resources.



To ensure ongoing benefits, CNSWJO has developed "The Wedge," a regional support program that includes periodic external audits, leveraging governance and accountability frameworks, and automated data updates. The regional reporting tool and continuous training programs will maintain momentum. Embedding water loss management into Integrated Planning and Reporting and council operational plans will ensure sustained focus and accountability.

Components such as the regional reporting tool, training programs, and aggregated procurement processes are transferable to other water management initiatives. The collaborative governance model and periodic external audits can also be applied to other projects, ensuring continuous improvement and accountability. The project's success provides a replicable template for other regions and water management challenges.



Key Learnings

CNSWJO learned that accurate data collection and management are essential for effective water loss management. Ground truthing revealed data inaccuracies and highlighted the need for improved data systems.

Training and knowledge transfer are essential, as gaps in staff understanding and lack of system schematics were barriers. The complexity and variability in water systems emphasise the need for continuous, adaptable management practices.



If embarking on this project again, CNSWJO would focus more on initial data accuracy and infrastructure assessment. Ensuring all necessary equipment is in place and maintained before starting would mitigate early challenges. Implementing more robust, "learning by doing" training programs from the outset would better prepare staff. Prioritising clearer system schematics and naming conventions would simplify the implementation process.



Future Directions

The next steps include continuing the regional support program and maintaining regular external audits to ensure ongoing compliance and improvement. CNSWJO plans to expand training programs to cover more aspects of water loss management and develop additional modules for the regional reporting tool. Leveraging existing networks and partnerships will enhance the project's reach and impact. Continued data automation and integrating water loss management into broader regional water security strategies are key focuses moving forward.

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This project was the 2024 Overall Winner of the Water Management category at the LGNSW Excellence in the Environment Awards. This award was supported by our category partner the Water Directorate.