

# ALVARO CAÑIZARES

## PLANNING ENGINEER



alvarojcanizares@gmail.com | linkedin.com/in/alvaro-canizares | Gold Coast, Australia

Innovative infrastructure planner with over seven years of experience delivering efficient, data-driven solutions for water distribution and collection systems. I have developed and optimized Capital Improvement Plans for high-profile utilities and engineering consultants across Australia, New Zealand, and the United States.

My creative, client-focused approach ensures technically robust master plans across diverse contexts. I specialize in automating workflows to enhance efficiency while maintaining high-quality outputs.

### PROFESSIONAL EXPERIENCE

#### Digital Water Solutions - Gold Coast, Australia

Aug 2024 - Aug 2025

- Delivered monthly InfoWorks ICM and WS Pro training sessions across Australia and New Zealand.
- Developed an InfoWorks ICM training course focused on advanced modeling techniques and practical, hands-on software application.
- Led master planning projects for rural Australian towns, covering model building, calibration, and strategic planning.

#### WCS Engineering - Kingscliff, Australia

Jul 2019 - Feb 2024

- Successfully delivered large-scale and complex optimization projects for high-profile clients across Australia, New Zealand, and the United States.
- Reduced optimization project timelines by 60% through workflow automation, enhancing efficiency.
- Developed a methodology to create one-stop ArcGIS Pro Online dashboards to summarize and enhance optimization outputs (similar to Aperture), which was adopted as a standard deliverable.
- Created a comprehensive technical video series on the full optimization workflow - from model conversion to optimized outputs processing - significantly reducing new staff training time.

#### UrbanDAC - Gold Coast, Australia

Aug 2018 - Jul 2019

- Gained hands-on experience in wastewater model calibration, under the direct guidance of Senior Engineer Michael Austin.

### SOFTWARE EXPERIENCE

- **Hydraulic Modeling:** InfoSWMM, InfoWater, InfoWorks ICM, InfoWorks WS Pro, PC-SWMM, EPA SWMM, EPA Net, SSOAP
- **Planning:** Optimizer WCS, Optimizer ICM
- **GIS:** ArcGIS Pro, ArcGIS Pro Online, QGIS
- **Automation:** Python, Power Automate, SQL
- **Others:** Power BI, Canva, DaVinci Resolve (video editing)

### EDUCATION

Bachelor of Civil Engineering (Honours)  
University of Queensland - Brisbane, Australia

2019

High School Diploma  
Jim Thorpe High School - PA, USA

2012

## RELEVANT PROJECT EXPERIENCE

---

### Digital Water Solutions - Gold Coast, Australia

- *MidCoast Council (MCC) - Sewer Servicing Strategies*

Led model building, calibration, and master planning for seven MidCoast Council regions: Bulahdelah, Coopers Creek, Gloucester, Harrington, Manning Point, and Wingham. This project involved traditional master planning and hydraulic modelling.

- *Unity Water - Capital Expenditure GIS Database (Sunshine Coast, Australia)*

Led the digitalization and update of hundreds of capital expenditure projects related to water and wastewater assets for Unity Water.

- *"Advanced InfoWorks ICM" training course*

Developed an InfoWorks ICM training focused on efficient software use, integration with QGIS, ArcGIS Pro, and CSV imports to streamline Excel and Power BI workflows.

### WCS Engineering - Kingscliff, Australia

Led city-wide wastewater master plan development, optimization, and prioritization for:

- City of Salem, OR, USA
- Springfield, MO, USA
- Johnson County Wastewater, KS, USA\*
- Jefferson County, AL, USA

Supported wastewater master plan development, optimization, and prioritization as a project engineer for:

- Christchurch City Council, New Zealand
- Jefferson County, AL, USA - Valley Creek SSO Remedial Measures Plan\*
- City of Tulsa, OK, USA (Northslope Basin) - Included manual calibration of 37 flow metering points across two storms using InfoWorks ICM for a complex, interconnected system.

Supported development and optimization as a project engineer for:

- Kainga Ora, Christchurch, New Zealand – Development Opportunity Optimization\*
- Brisbane, QLD, Australia – S1 Catchment Treatment Plant Optimization

### Other Relevant Work

- Marion County, FL, USA – Water Distribution Model Calibration
- Gold Coast Water, Australia – Water and Sewer Network Capacity Assessments

### Note:

\* Presented at WEFTEC by WCS Engineering