

# Future Proofing Town Of Port Hedland's Irrigation Water Network

## Client:

The Town of Port Hedland

## Keywords:

Data Collection, Hydraulic Modelling, Report Writing, & Engineering Design

## Background:

The Town of Port Hedland is a local council in the Pilbara region of Western Australia.

It is the second largest town with an urban population of 15,298 (2021 Census Data).

It is a port town with a high level of traffic from the mining activities in the region.

## Challenge

The Town of Port Hedland had plans to expand their public open spaces creating new parks and upgrading old ones. The issue was they didn't know if their current water network was capable of supplying the increased demand and where areas of improvement needed to be made.

## What we did

The current water monitoring network at the sites had multiple data gaps and made it difficult to model across the site. Engineered Efficiency conducted a site visit to collect data by installing temporary flow meters with our in-house equipment across the irrigation locations. A meeting was organized with council members to discuss their future plans for a better appreciation of their future development plans.

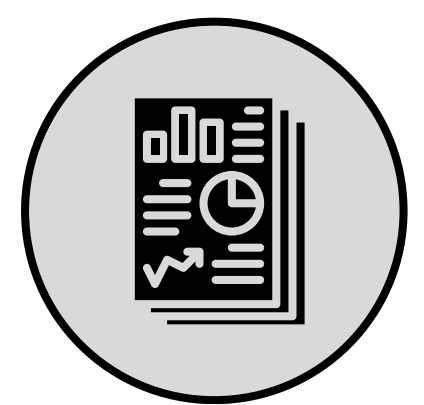
A water network model was then developed on WaterCAD to predict future demand scenarios based on when and where new developments were located and categorized them into the four priorities (current-, short-, medium-, and long-term).



30 Irrigation Sites Analysed



6 Critical Areas Identified



Recommendations and Upgrades Reported

## Results

The modelling identified a few choked areas and inefficiencies in the irrigation network and we developed a series of recommendations to the council with which upgrades and changes to prioritize.

The modelling results confirmed the proposed upgrades at the irrigation sites will be suitable for the future capacity requirements.

