

The Cobar Water Board



From Data to Decisions: Strengthening Regional Water Resilience Through Digital Asset Management

AMPEAK 13th April 2026

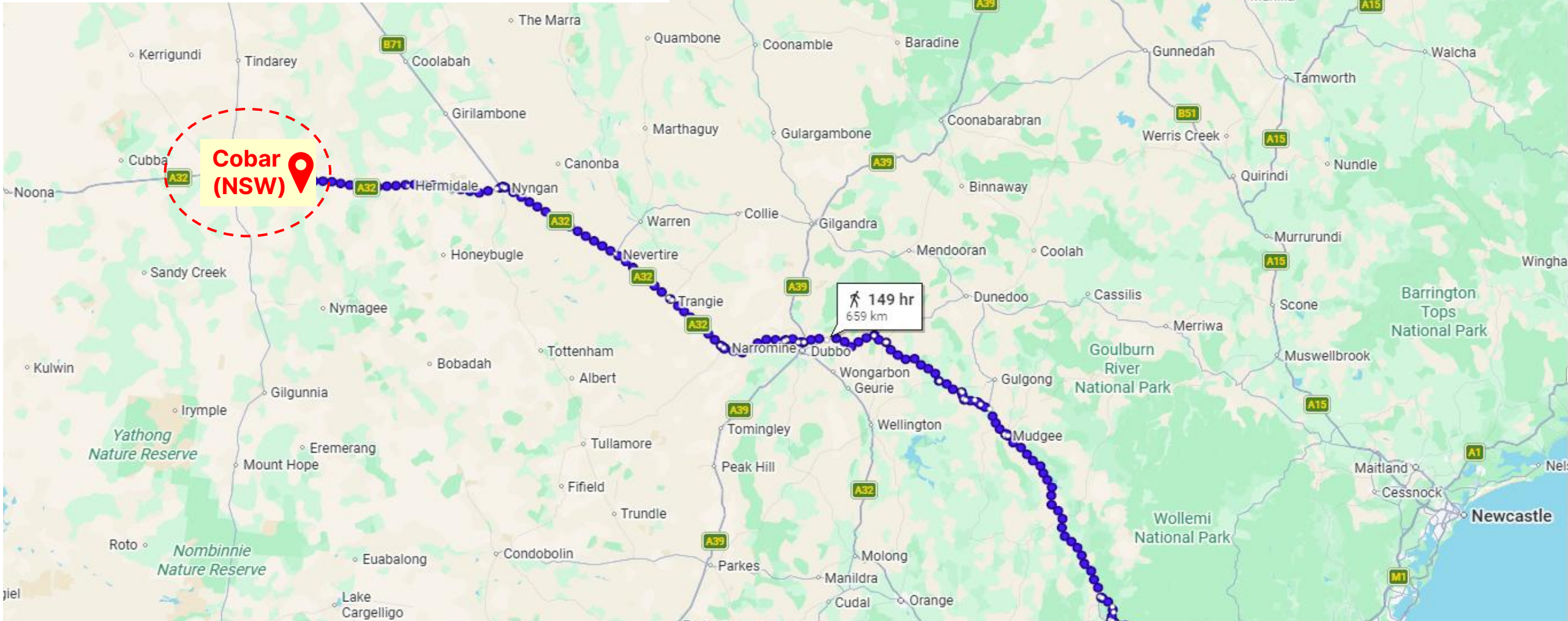


Agenda

- Background
 - Water Supply to Cobar (NSW)
- Issues and Challenges
- Digital AM application
- Cobar's Outcomes

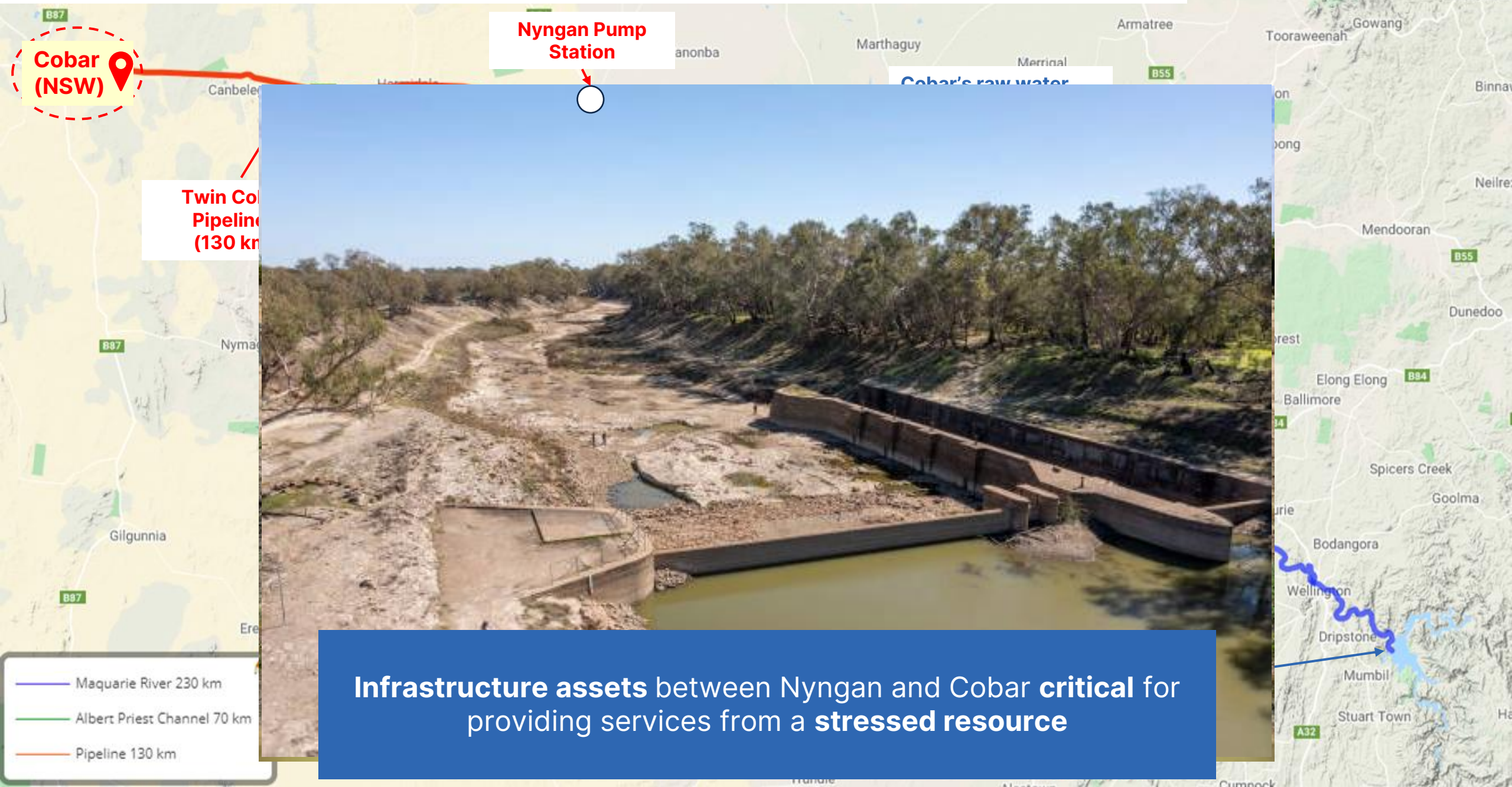


Background – Cobar (NSW)

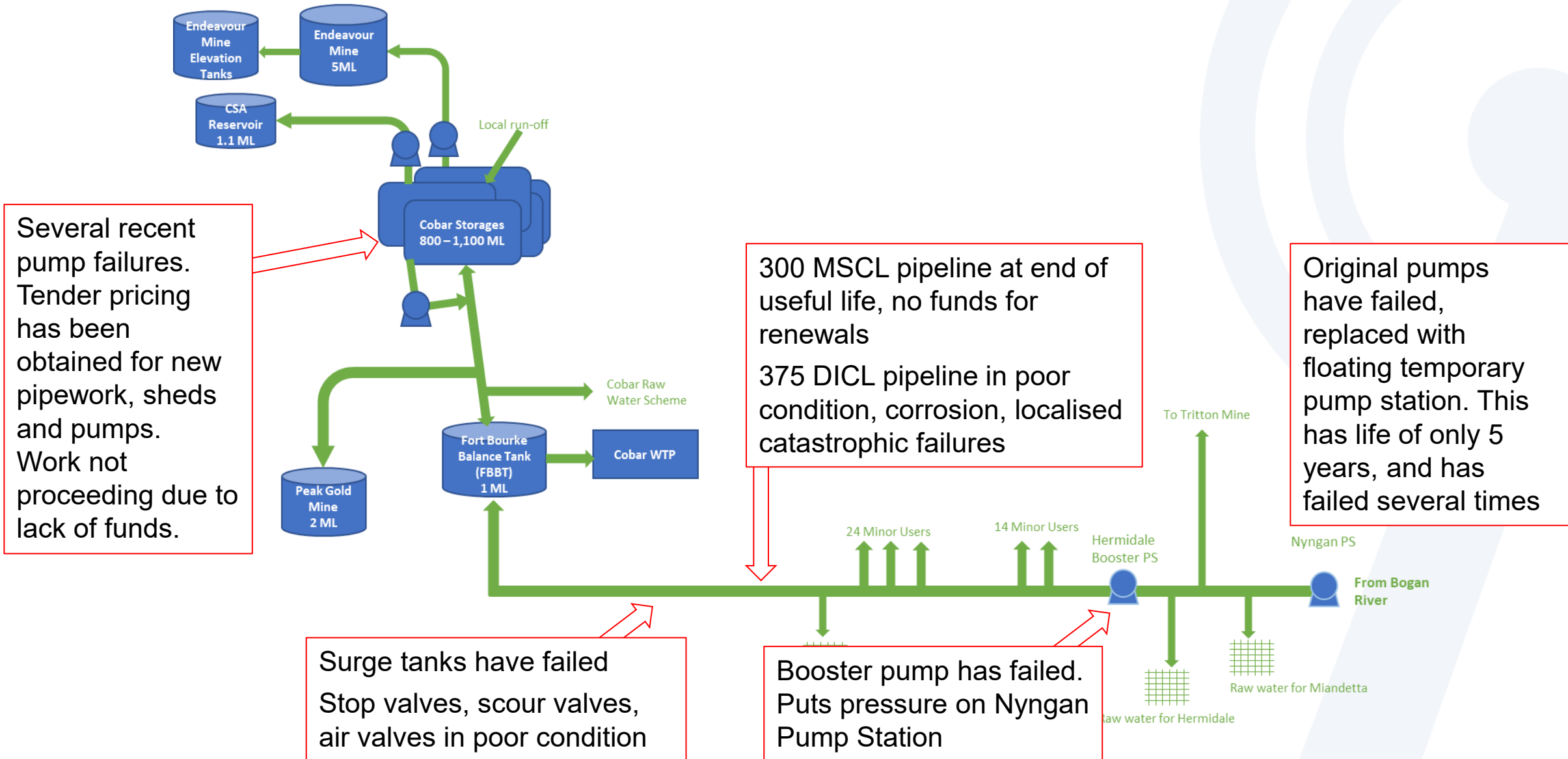


Cobar is a town in [Outback New South Wales](#), Australia, whose economy is based mainly upon base metals and gold mining. The town is 712 km (442 mi) by road northwest of the state capital, [Sydney](#). It is at the crossroads of the [Kidman Way](#) and [Barrier Highway](#). The town and the local government area, the [Cobar Shire](#), are on the eastern edge of the [Outback](#). At the 2021 census, the town of Cobar had a population of 3,369.^[2]

Background – Where does Cobar's water come from?



Background – Infrastructure State of the Assets



Asset Management Challenge

- 2019 Nyngan and Hermidale raw water pump station failures.....



Asset Management Challenge

- 2021/22 floods – Nyngan temporary pump station.....



Asset Management Challenge

- Frequent pumping and pipeline failures....



Asset Management Challenge

ABC NEWS

2022 article “Infrastructure & Drought preparations in Western NSW”

Vital pipeline prone to failure

Projects being investigated to help western NSW communities have reliable back up water sources include the Western Weir Strategy, Nyngan to Cobar Pipeline and Dubbo pipeline.

The outback mining town of Cobar depends on water transported from Nyngan's Bogan River 130 kilometres away, via pipeline and three pumping stations that are "the town's lifeline" but past their design life and prone to failure.

During a major infrastructure failure, the Cobar township and mines only have three days' water supply.

When the infrastructure failed, water was so scarce officials considered trucking in supplies.

"To keep a town like Cobar and our mining industries alive, we need new pump stations in Cobar, Nyngan and Hermidale and a new pipeline," Cobar Shire Council general manager Peter Vlatko said.

"The pipeline broke down last weekend, we're lucky it's not a drought or summer."

In 2024, critical infrastructure considered to be “**on life support**”...funding to restore infrastructure reliability and services to community and mining customers was required.....

Underlying issues

- Ensuring costs for the residents are reasonably affordable
 - Balancing pricing against social economic status
- Aging asset base - Very little investment in renewals
- Staffing/skillset/retainment/succession issues
- Reactive maintenance – Crisis to Crisis
- Historically low regulatory oversight and intervention
- Remoteness and isolation – additional costs and difficulty with getting adequate staff/contractors



Commitment of Cobar team prevented complete system failure.....now need to demonstrate a **“safe pair of hands”** to state government

Asset Management Challenge

- Understanding system capacity/capability/efficiency
- Understanding key risks and challenges
- Understanding solutions to deliver services and resourcing needs
- Make and implement sound strategic decisions
- Implement sound pricing and prudent financial management

Defensible, evidence-based support to maintenance and renewals decisions required in a **short timeframe**



Reasonable
standard



Sufficient



Appropriate



Robust

Digital Asset Management Planning Tool

1

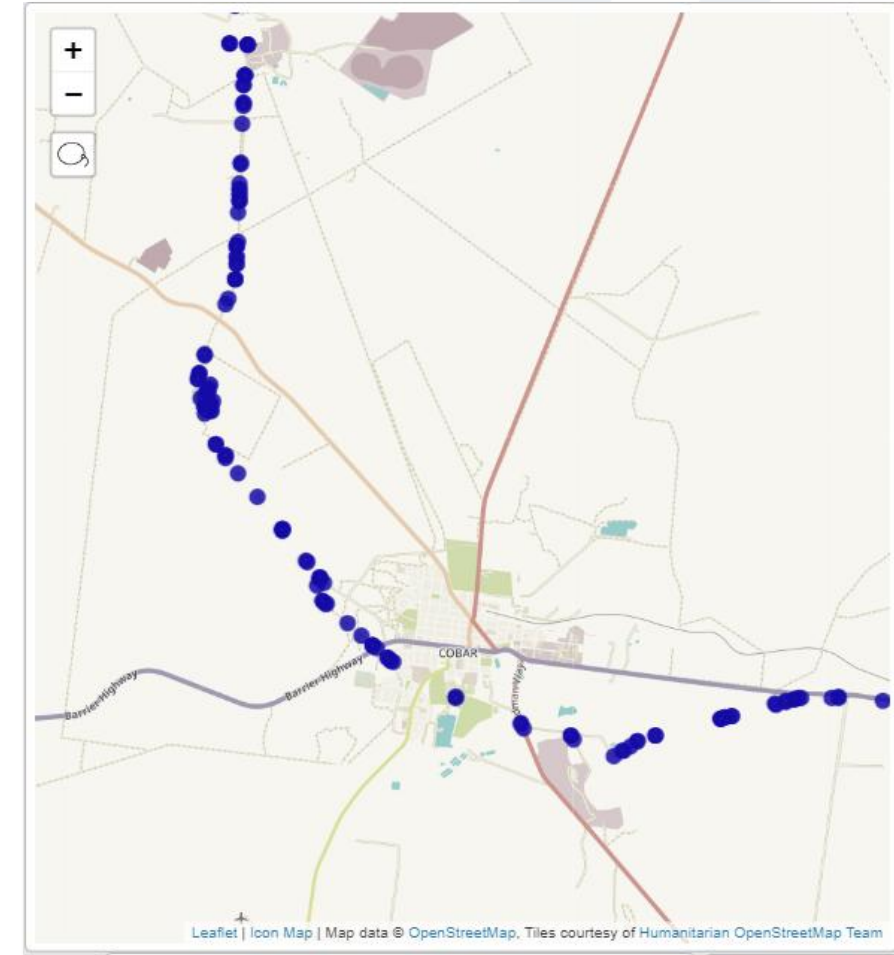
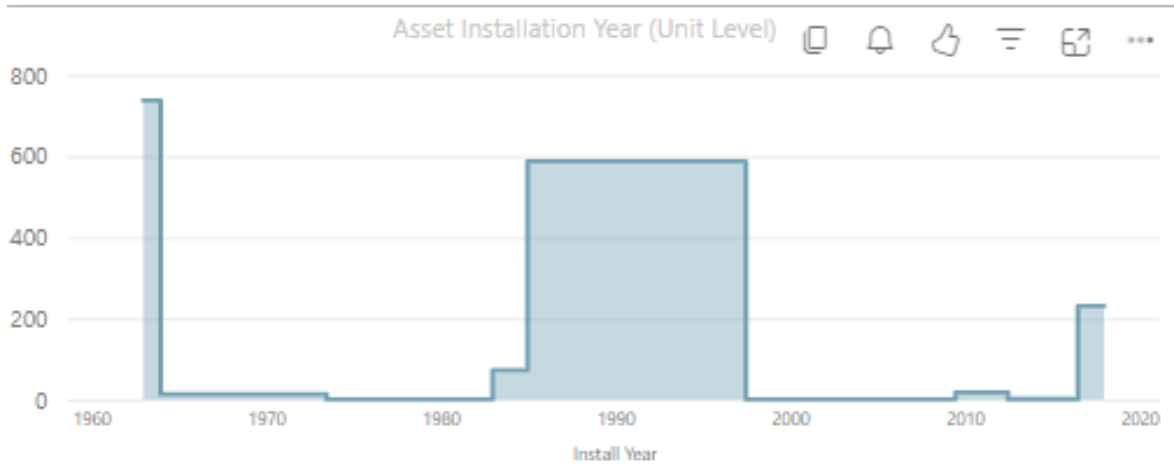


Asset Data Model

Setting up the asset register to allow **insights** to be gathered and **conveyed easily**. Register set up to show the **impact** of asset condition and asset risk on services

Digital Planning Tool – Asset Details

Facility Name	Unit #	Unit #%	Length Km	Avg. Expected Life	Avg. Remaining Service Life	CRC	CRC%
200 AC CSA Line	40	2.4%	5.00	48.1	-12.0	\$4.1M	0.5%
Cobar Storage - Endeavor Mine	98	5.9%		36.5	-23.5	\$30.4M	3.8%
Cobar Storages	113	6.8%		36.8	3.7	\$17.1M	2.1%
Ft Bourke-Storage Line 1A 300	21	1.3%		35.2	-24.8	\$5.7M	0.7%
Ft Bourke-Storage Line 2A 375	23	1.4%		37.5	-22.5	\$9.5M	1.2%
Hermidale Raw Water Pump Station	68	4.1%		35.4	-0.7	\$4.2M	0.5%
Nyngan pump station	7	0.4%		35.0	-25.0		
Nyngan Raw Water Pump Station	71	4.3%		25.5	20.0	\$7.9M	1.0%
Nyngan-Ft Bourke 300 Line 1	552	33.2%	127.00	57.4	-2.6	\$273.5M	34.0%
Nyngan-Ft Bourke 375Line 2	521	31.3%	127.00	58.5	21.5	\$367.8M	45.7%
Nyngan-Ft Bourke N375 Line 3	150	9.0%	30.48	53.8	48.8	\$85.1M	10.6%
Total	1664	100.0%	289.48	51.6	8.9	\$805.3M	100.0%



Digital plan allows asset portfolio to be understood and conveyed effectively – What assets to do we own? How old? How much to replace? Where are the data gaps?

Digital Planning Tool – Asset Defects, Condition & Health



Cobar

Cobar Condition & Defect R...

Condition

Defects

Unit Detail

Defect Detail

Cobar Water dAMP

Cobar Shire Council dAMP



Condition Status

Condition Filter

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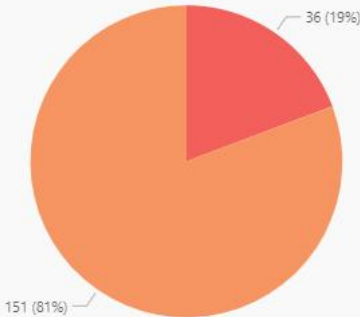
Asset Hierarchy Filter

☐ Cobar Raw Water Scheme

☒ Cobar Raw Water Distribution

- ☐ 200 AC CSA Line
- ☐ Cobar Storage - Endeavor Mine
- ☐ Ft Bourke-Storage Line 1A 300
- ☐ Ft Bourke-Storage Line 2A 375
- ☐ Hermidale Raw Water Pump Station
- ☐ Mount Boppy Reservoir
- ☐ Nyngan pump station
- ☐ Nyngan Raw Water Pump Station
- ☐ Nyngan-Ft Bourke 300 Line 1
- ☐ Nyngan-Ft Bourke 375Line 2
- ☐ Nyngan-Ft Bourke N375 Line 3

Condition



● 5
● 4

Unit Photo



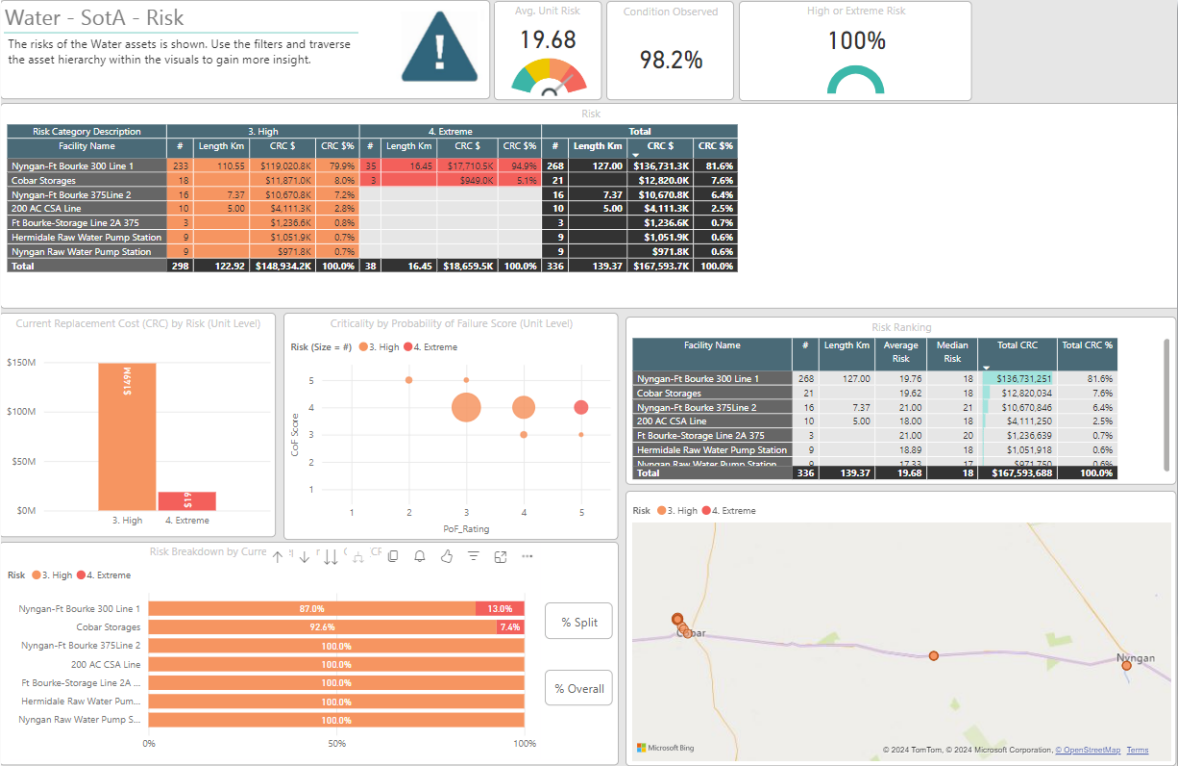
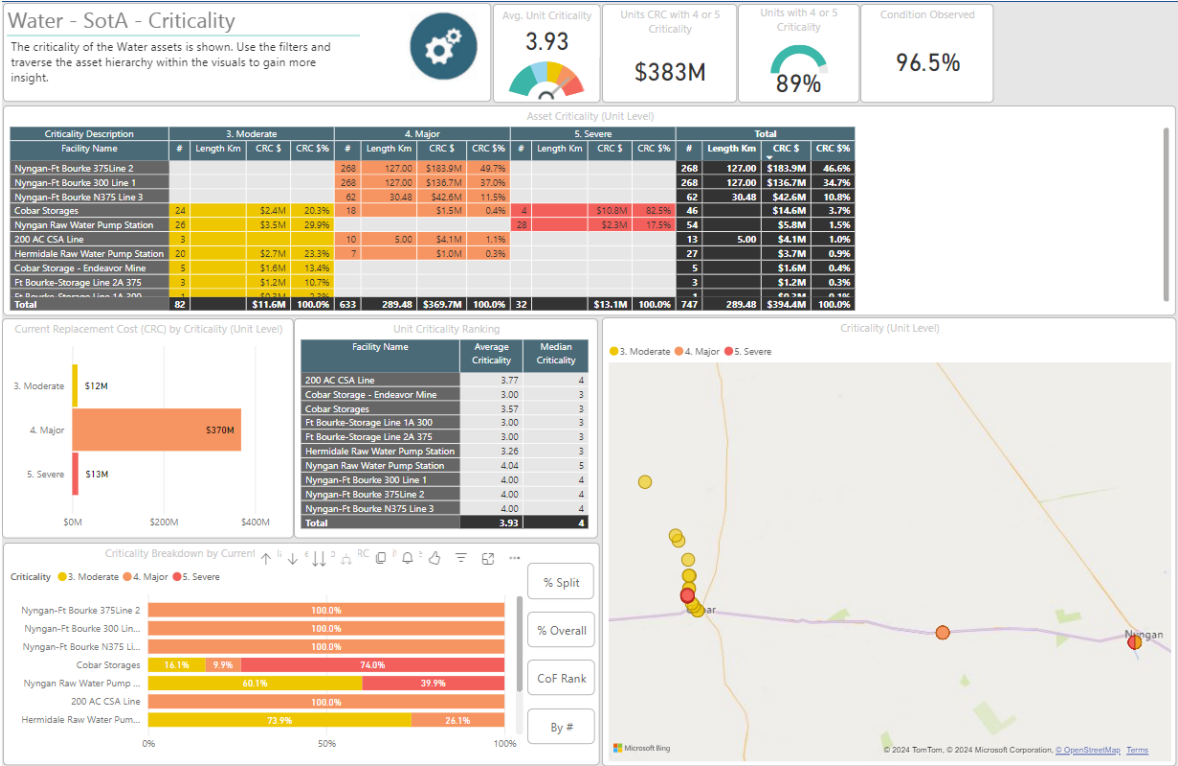
Condition

Scheme_Name	#	CRC	Average Condition
Cobar Raw Water Scheme	187	\$27.96M	4.19
Cobar Raw Water Distribution	187	\$27.96M	4.19
Nyngan-Ft Bourke N375 Line 3	3	\$0.58M	4.67
Nyngan-Ft Bourke 375Line 2	42	\$12.21M	4.31
Nyngan-Ft Bourke 300 Line 1	48	\$9.24M	4.27
Trunk Main Section 9	3	\$0.58M	4.33
Trunk Main Section 7	3	\$0.58M	4.00
Trunk Main Section 5	4	\$0.77M	4.25
Trunk Main Section 4	1	\$0.19M	5.00
Trunk Main Section 3	2	\$0.39M	4.00
Trunk Main Section 24	2	\$0.39M	4.50
Trunk Main Section 2	8	\$1.54M	4.00
Trunk Main Section 18	2	\$0.39M	5.00
Trunk Main Section 16	1	\$0.19M	4.00
Trunk Main Section 14	3	\$0.58M	4.33
Trunk Main Section 12	2	\$0.39M	4.50
Trunk Main Section 11	1	\$0.19M	4.00
Trunk Main Section 10	3	\$0.58M	4.00
Trunk Main Section 1	13	\$2.50M	4.38
Nyngan Raw Water Pump Station	1		4.00
Nyngan pump station	6		4.00
Mount Boppy Reservoir	15	\$0.11M	4.07
Hermidale Raw Water Pump Station	28	\$0.25M	4.00
Ft Bourke-Storage Line 2A 375	5	\$0.82M	4.60
Ft Bourke-Storage Line 1A 300	6	\$0.65M	4.00
Cobar Storage - Endeavor Mine	33	\$4.10M	4.12
Total	187	\$27.96M	4.19



Digital Planning Tool – Asset Criticality & Risk to Service

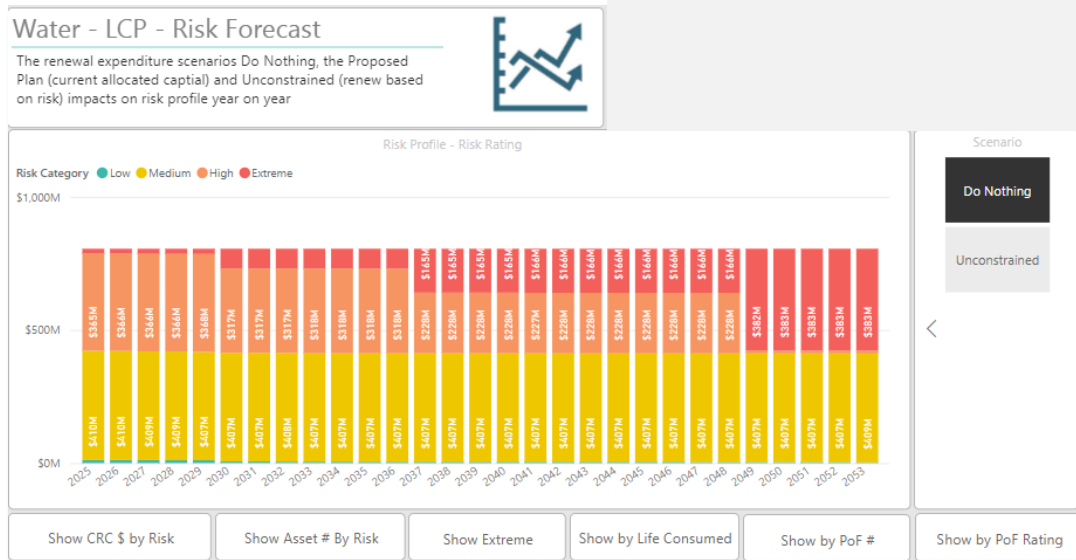
Which assets impact the business the most? Where are they located? What's their replacement cost?



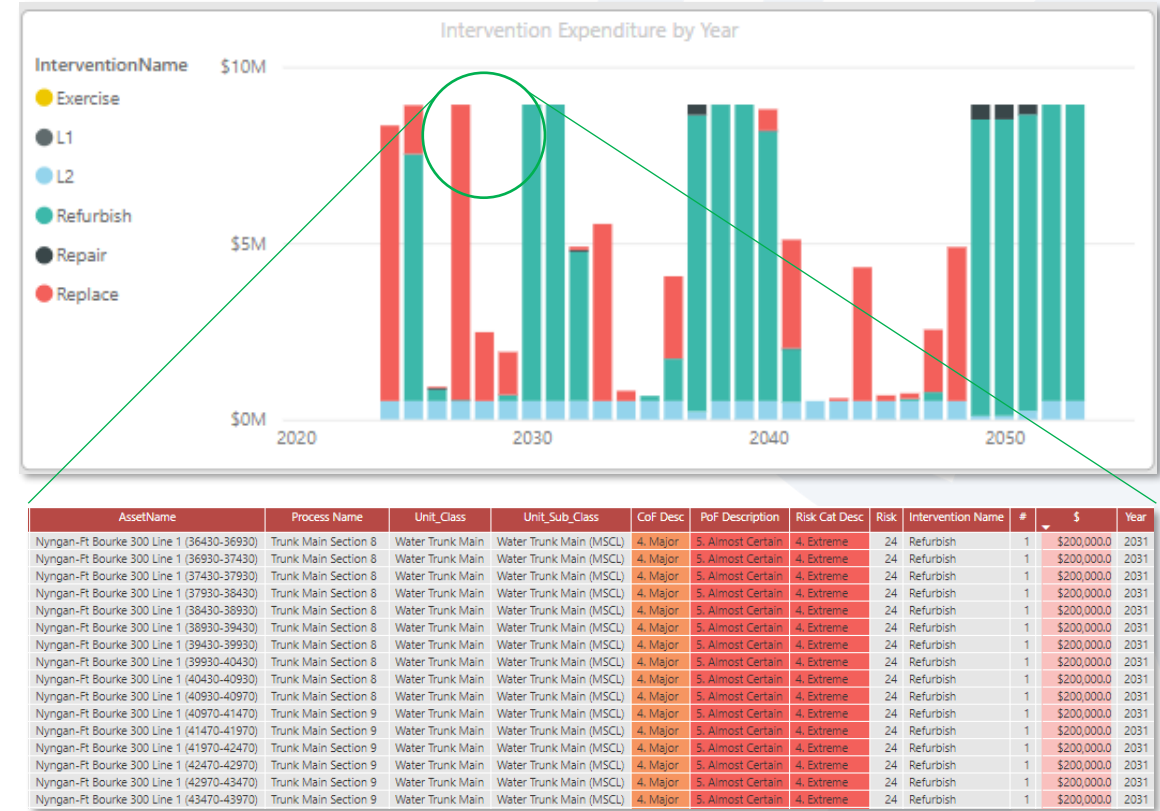
As a result of this, where are the risky hot spots?
How large is our risk exposure?

Digital Planning Tool – Risk Mitigation & Funding Requirements

Is it possible to mitigate the risk with the budget we have?



What are we doing? Where are we doing it? When?



Can we get approval? Can activities be aligned with other projects?

Cobar's Outcomes

- ✓ • Understanding system capacity/capability/efficiency
- ✓ • Understanding key risks and challenges
- ✓ • Understanding solutions to deliver services and resourcing needs
- ✓ • Make and implement sound strategic decisions
- ✓ • Implement sound pricing and prudent financial **management**

Digital Asset Management Plan provided a **collaborative** tool to **demonstrate assurance**
Project duration: **3 months**



Reasonable
standard



Sufficient



Appropriate



Robust

Cobar's Outcomes

Work begins on Nyngan to Cobar pipeline

Farren Hotham
21 July 2025, 12:40 PM



Joint media release: Construction begins on landmark Nyngan and Hermidale pump stations

28 November 2025

Senator The Hon Murray Watt, Minister for the Environment and Water
The Hon Rose Jackson MLC, NSW Minister for Water

Construction on one of the largest water infrastructure projects in western NSW is now underway, with the new Nyngan and Hermidale pump stations set to deliver long-term water reliability for Cobar.

The project is jointly funded by the Australian Government through the National Water Grid Fund and the NSW Government.

The \$49 million project will be a gamechanger for Cobar, one of the only towns in NSW without its own water source, which relies on water being transferred via 130km of pipeline.

Pit 11	19.19km	Minimum 20 year life expectancy	Pit 36	69.21km	Minimum 20 year life expectancy
Pit 12	20.22km	Minimum 20 year life expectancy	Pit 37	70.75km	Minimum 20 year life expectancy
Pit 13	22.06km	Minimum 20 year life expectancy	Pit 38	72.64km	Minimum 20 year life expectancy
Pit 14	23.62km	Minimum 20 year life expectancy	Pit 39	74.73km	Minimum 20 year life expectancy
Pit 15	26.43km	Minimum 10 year life remaining	Pit 40	76.64km	Minimum 20 year life expectancy
Pit 16	27.53km	Minimum 20 year life expectancy	Pit 41	78.58km	Minimum 20 year life expectancy
Pit 17	29.18km	Minimum 20 year life expectancy	Pit 42	80.30km	Minimum 20 year life expectancy
Pit 18	31.92km	Minimum 20 year life expectancy	Pit 43	82.07km	Minimum 20 year life expectancy
Pit 19	35.58km	Minimum 20 year life expectancy	Pit 44	84.85km	Replace ASAP / Already Failed
Pit 20	38.00km	Replace ASAP / Already Failed	Pit 45	86.91km	Replace ASAP / Already Failed



Digital Planning applied to provide a **rapid uplift in Asset Management practice**, demonstrate **risk to services**, and provide **funding assurance**

Cobar's Outcomes

Challenge

- Exceptionally long, remote water supply system with **life-expired assets**
- **Insufficient asset data and visibility**, increasing risk to services, **limiting** assurance and informed investment decisions

Response

- Comprehensive, rapid field data capture working **alongside operations staff**
- Implemented a **digital, risk-based** asset and life-cycle management **planning tool**

Outcomes

- **Demonstrable improvement in asset governance**, risk transparency and investment prioritisation
- Defensible evidence-base to support **funding decisions, pricing settings, and long-term financial sustainability**

Thank You

Contact us:

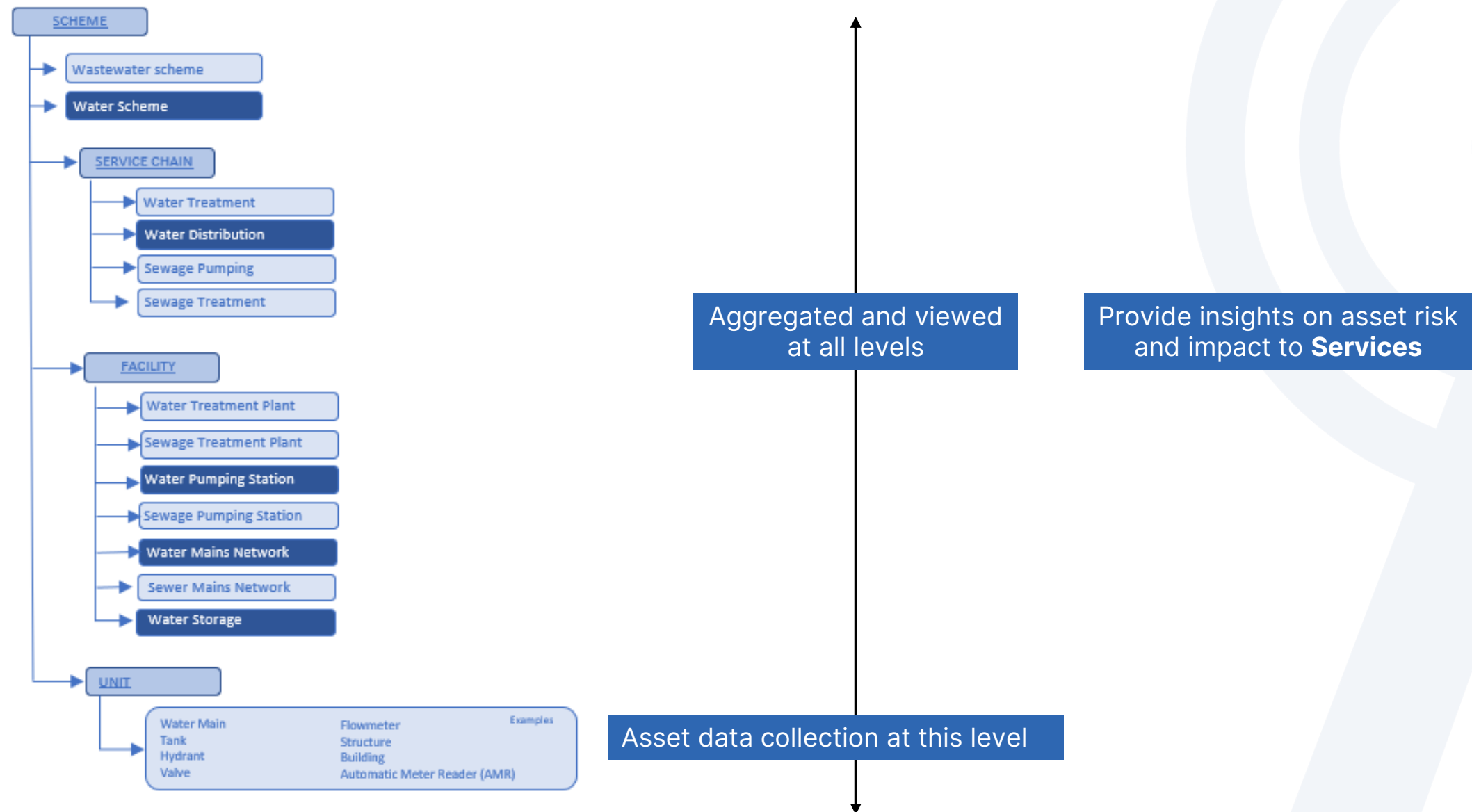
hello@betteraim.com.au

www.betteraim.com.au

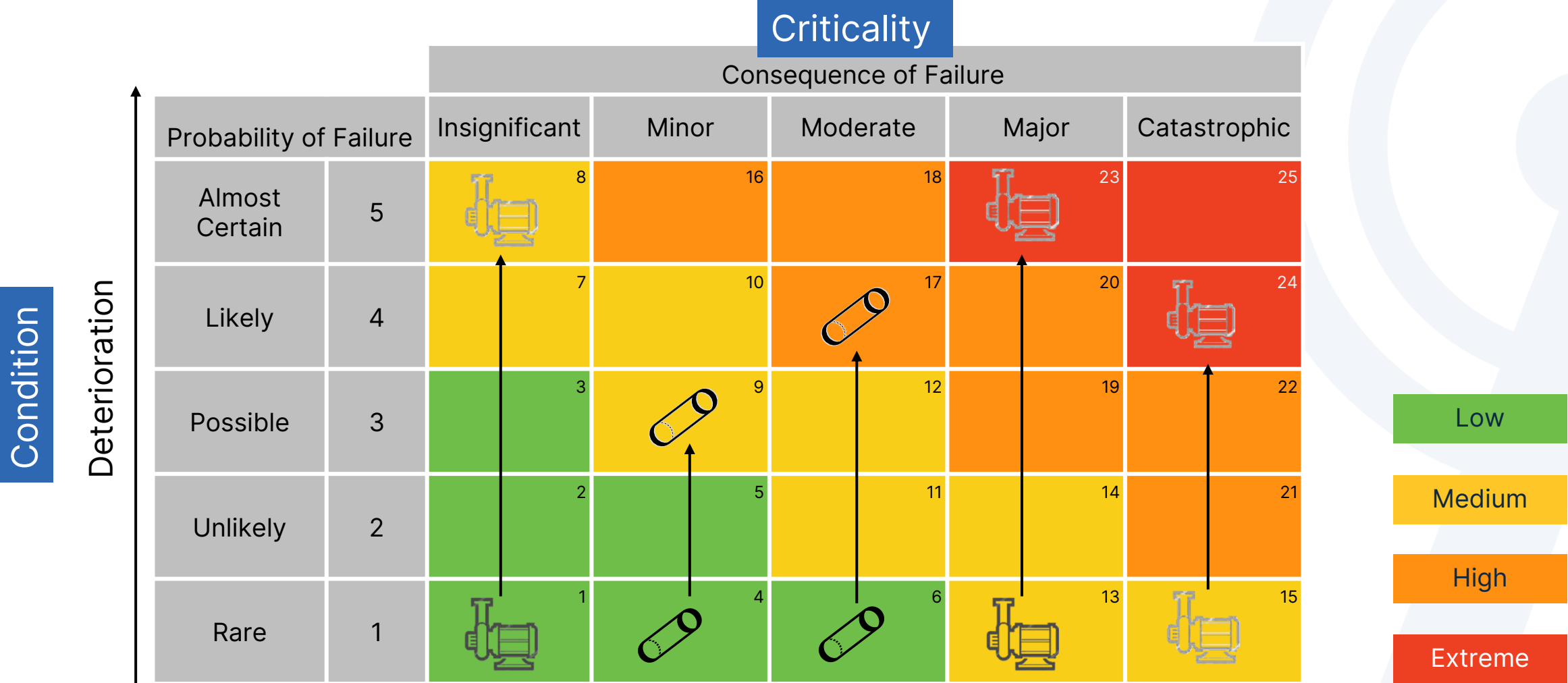
Perth, Western Australia 6010



Digital Asset Management Planning Tool



Digital Asset Management Planning Tool



Can forecast risk to service exposure over time

Digital Asset Management Planning Tool

		Consequence of Failure				
Probability of Failure		Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	5	8 Renew	16 Renew	18 Renew	23 Renew	25 Renew
Likely	4	7 L1 Visual (5yr)	10 L1 Visual (1yr)	17 L2 Detailed (2yr)	20 Renew	24 Renew
Possible	3	3 No intervention	9 L1 Visual (5yr)	12 L1 Visual (1yr)	19 L2 Detailed (2yr)	22 L2 Detailed (1yr)
Unlikely	2	2 No intervention	5 No intervention	11 L1 Visual (5yr)	14 L1 Visual (2yr)	21 L1 Visual (2yr)
Rare	1	1 No intervention	4 No intervention	6 No intervention	13 L1 Visual (5yr)	15 L1 Visual (5yr)

Low

Medium

High

Extreme

Can forecast planned investment over time

From Data to Decisions: Strengthening Regional Water Resilience Through Digital Asset Management

Paul Davis ¹

1. BetterAIM, WA/TAS, Australia

Regional councils across New South Wales face a shared challenge: ageing infrastructure, limited funding, and fragmented asset information that hinder effective decision-making. Many organisations are constrained by incomplete registers, undocumented knowledge, and a lack of clear linkage between asset condition, risk, and investment.

This paper presents a collaborative model, demonstrating how digital asset management systems can drive operational readiness and long-term sustainability. The approach centred on establishing a comprehensive digital asset register that integrated asset condition, criticality, and risk information to provide a single source of truth.

Field inspections verified the asset base and captured performance and defect data, while structured data models enabled visibility across water and sewerage services. The resulting digital framework aligned to ISO 55001 and the NSW Regulatory and Assurance Framework enabled utilities to forecast deterioration, assess risk exposure, and model intervention scenarios over time.

Integration with financial modelling tools connected asset performance data directly to investment and pricing strategies. This evidence-based planning approach allowed councils to identify which assets required renewal, where operational risks were highest, and what level of funding was needed to deliver safe, reliable, and sustainable services.

Within 12 months, Cobar Shire Council achieved a significant asset management maturity uplift, gaining a defensible foundation for risk-based maintenance, financial prudence, and regulatory assurance.