Australian Gas Infrastructure Group

Management of Water Crossings

APGA POG Seminar – 5 March 2026

Troy Praag

Dampier Bunbury Pipeline

Multinet Gas Networks

Australian Gas Networks

Our Connection to Country

By artist
Karen Briggs

Wurundjeri people of the Kulin Nation

Acknowledgement of Country

AGIG acknowledges the Traditional Custodians of the lands upon which we live and operate, and we pay our respects to Elders past, present and emerging.

We recognise Aboriginal and Torres Strait Islander people's historical and ongoing connection to land and waters, and we embrace the spirit of reconciliation.

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Our Vision

To deliver infrastructure essential to a sustainable energy future

Our Strategic Pillars

Customer Focussed

- Public Safety
- Customer Experience
- Cost Efficient

A Leading Employer

- Health and Safety
- Employee Experience
- Skills Development

Operational Excellence

- Profitable Growth
- Benchmark Performance
- Reliability

Sustainable Communities

- Enabling Net Zero
- Environmentally Focussed
- Socially Responsible

Our Values

We build **Trust**

We are **Accountable**

We **Care**

We are **One Team**

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Customers

2.1+ million

Shippers

62

Distribution

34,996 km

Transmission

4,319 km

Electrolysis

1.4MW

Dampier Bunbury Pipeline

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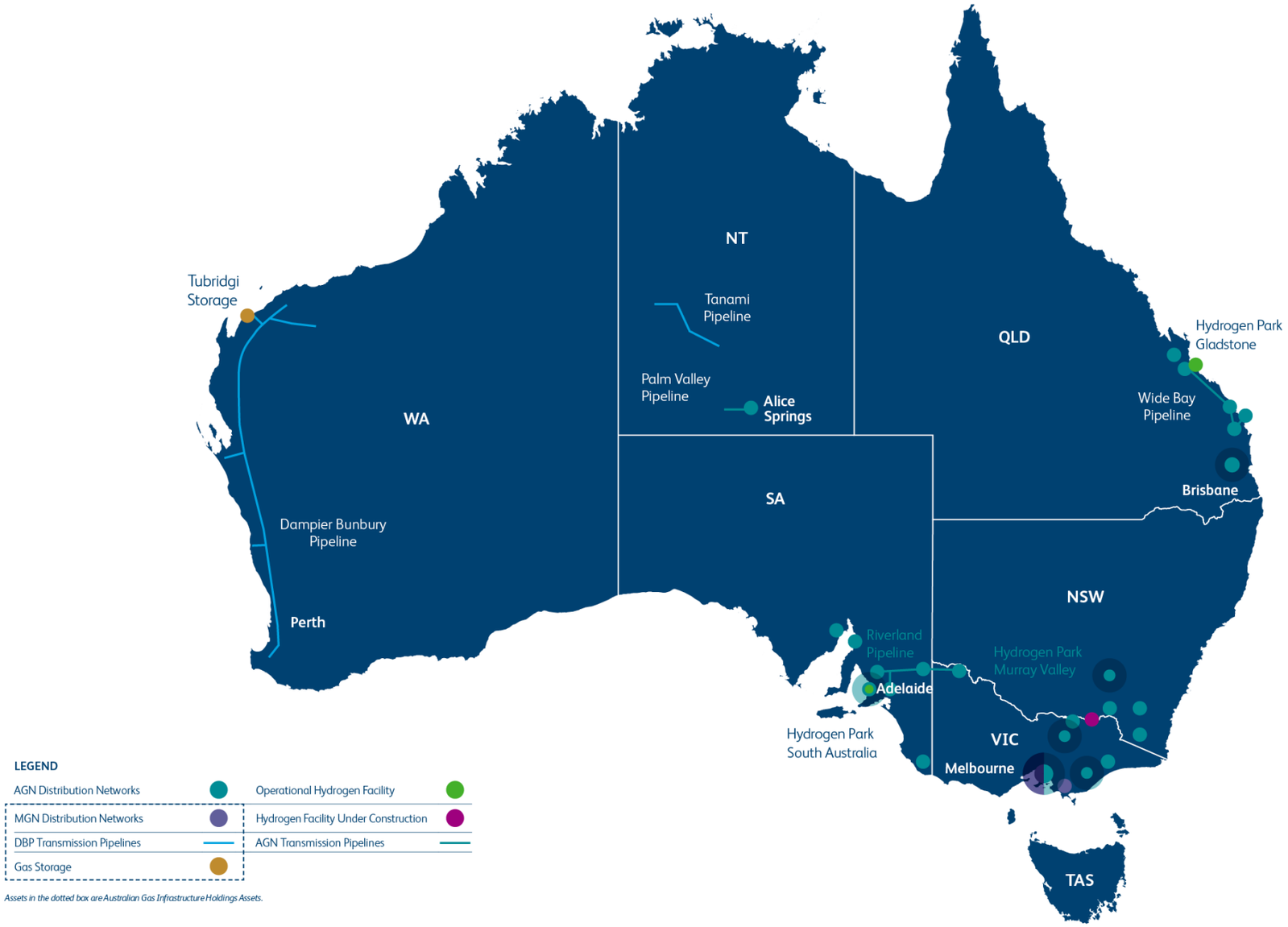

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A large variation in crossing types!

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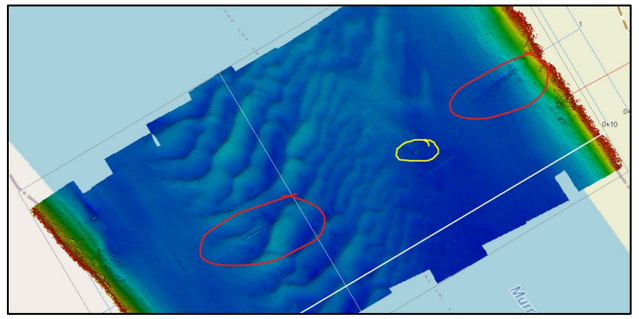
Transmission Crossings – Maintenance and Inspections

Inspection Frequencies:

- Water Crossings – Yearly and following a flood event (once safe to do so)
- Bridge inspections – Yearly and 5 yearly with specialised equipment

Inspection Methods:

- ***Visual inspections*** **-** where possible
- Aerial Surveillance - as required
- ***Hydrographic Survey*** **-** 5 years
- Drones / Barges
- Cover Concerns - physical verification (e.g. divers)



Hydrographic Survey outputs – Further investigation Required

Inner Ring Main DN 450 Bridge Inspection above Eastern Freeway

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What happens if we discover an exposed or shallow crossing?

As per AS2885 – Assess and manage the risk (short and long term) to ALARP.

Key Considerations

- Pipe condition and characteristics
- Local environment - physical threats e.g. anchor drag, foreign objects
- Cover - physical & depth of water
- ***River flow patterns & characteristics***
- Vortex Inducted Vibration (VIV)
- Other environmental considerations - implementation of controls
- Consequence of failure - location & downstream

Implementation

- Additional controls - short term / long term
- Downstream contingencies – ERP and redundancy of supply

Typical flow

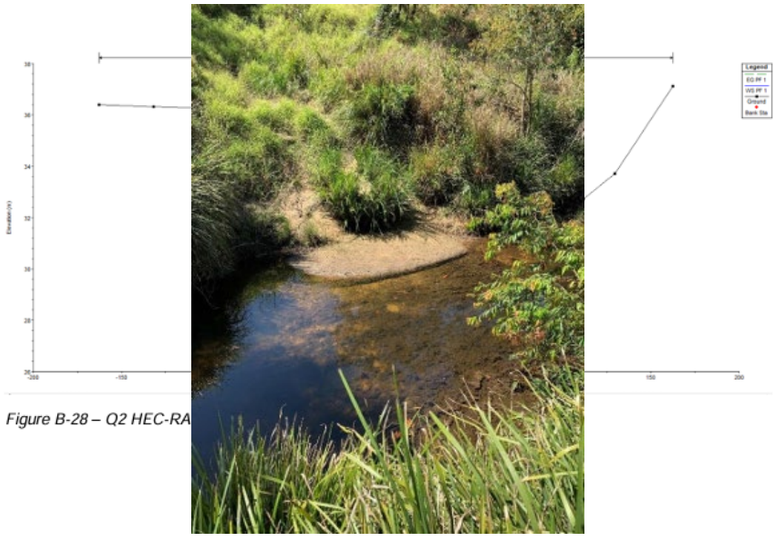


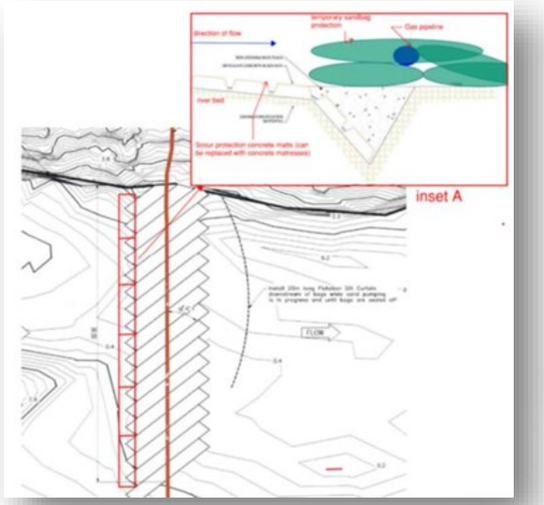
Figure B-28 – Q2 HEC-RA

Figure B-3 –

Flood event

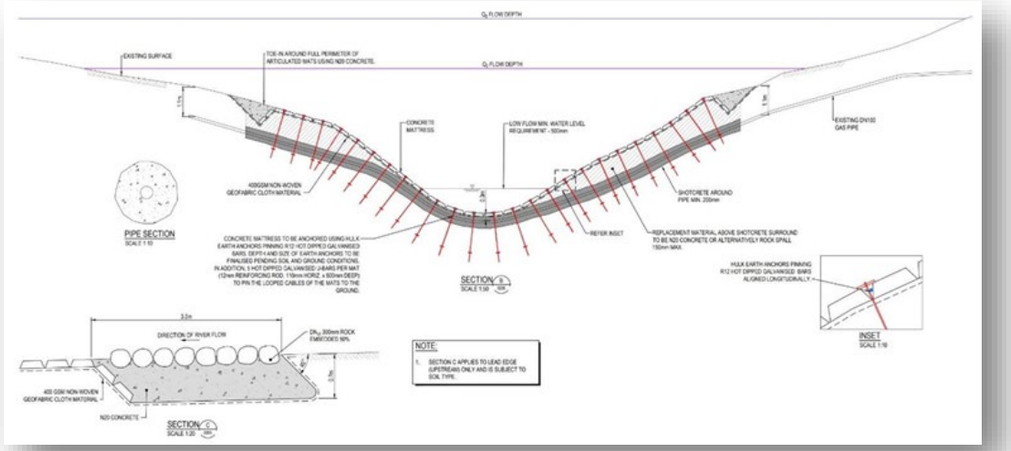
Potential Controls – Short Term & Long-Term

Sandbags



Aqua rock bags

Concrete Mattress



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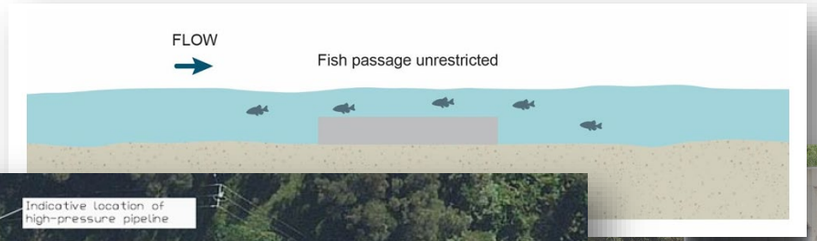
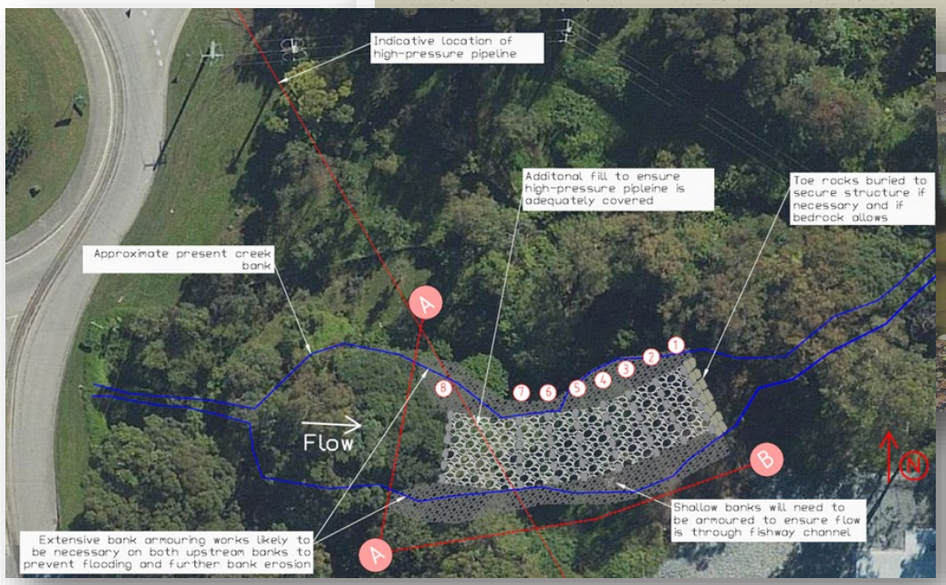
Potential Controls – Short Term & Long-Term

Waterway Barrier Works





Increased signage & procedural controls

New Crossing

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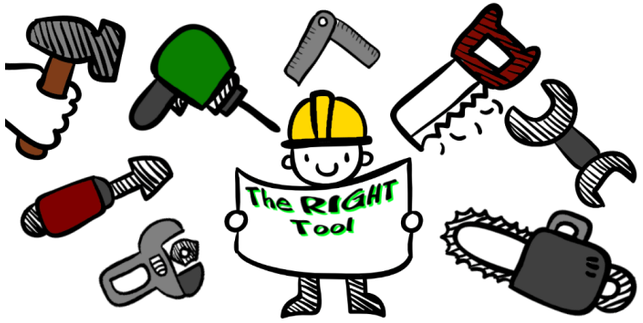
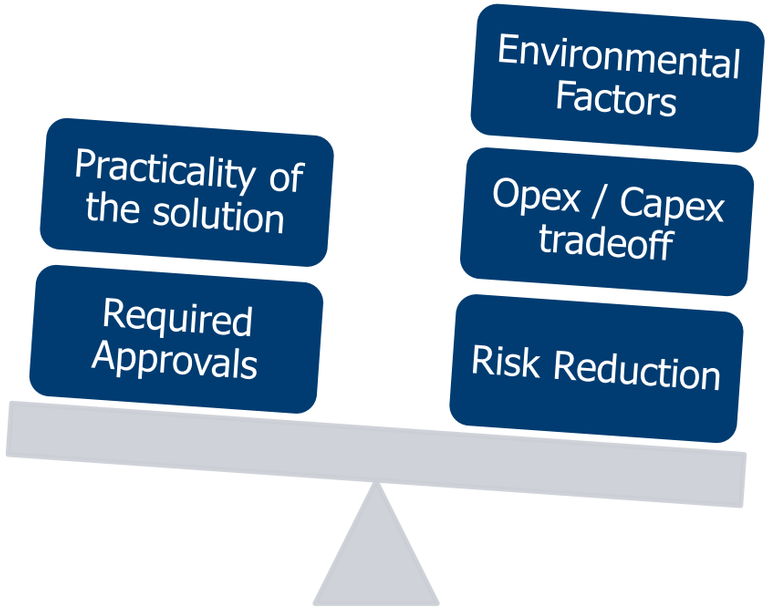
Potential Solutions

- Each crossing is different… **the balancing act**





- **Challenges with declining network demand** – cost effective / innovative solutions
- **Technical Regulators**
  - Pulling in the same direction – hand and glove, aligned
  - Communication – Help manage the narrative
  - Reducing barriers – Approvals!