# sunwater

# Burdekin Falls Dam Improvement and Raising projects

**Industry Briefing** 

15 September 2023

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## First Nations Commitment Statement

Sunwater acknowledges Aboriginal and Torres Strait Islander peoples as the first peoples of this country and Traditional Owners and Custodians of the land and water we rely on. We respect and value their continued sacred connection to Country, including the diverse, rich traditions, languages and customs that are the longest living in the world. We acknowledge their resilience in the face of significant and ongoing historical, cultural and political change within Australia. We recognise and value the importance of truth-telling today, and our role to listen and learn. Our vision for reconciliation is that we are a nation of unity and fairness for all; a nation that owns its history and acknowledges its First Nations peoples, their strength and their living culture.

Our goal is to work together to realise mutual benefits with First Nations peoples through authentic relationships and respect for cultural value; fostering a sense of belonging and pride in our people, community, customers and stakeholders. We can learn so much from Traditional Custodians who have cared for Country for thousands of years in the way we sustainably manage water and land. Going beyond compliance and embedding reconciliation into core business practices and decision making brings to life our purpose of Delivering Water for Prosperity through Valuing People, Working Together and Taking Responsibility.

This commitment has been endorsed by our Board and Executive Leadership team and reflects what our people, communities, and Shareholders expect of us. Aligned with our Code of Conduct, which describes how we work together no matter our role or where we are located, this commitment statement will be enabled through an Aboriginal and Torres Strait Islander recognition, engagement and participation strategy.

### Agenda

Sunwater overview and why a collaborative 01. delivery model

Mal Shepherd, Chief Development Officer

O2. Project overview and proposed delivery model Simon Thomas, Project Director

O3. Contract packages and procurement process Steven Garrick, General Manager Procurement

O4. Probity briefing
Rory O'Connor, Partner, O'Connor Marsden

06. Questions



## Sunwater overview and why a collaborative delivery model

Mal Shepherd, Chief Development Officer



We service more than





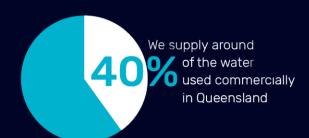




customers

Industrial

Urban







per year to deliver the lifeblood of regional Queensland

On average, we deliver more than 1300 gigalitres of water each year



**Sydney Harbour 3 times** 

Capacity of 6715 gigalitres of water storage in dams, weirs and barrages







64 weirs and barrages



595 kilometres of water channels



70 major pumping stations



1951 kilometres of pipelines



6 water treatment plants



#### **Irrigation customers**

Includes Local Management entities, irrigation consultative groups and individual irrigators

**Urban customers** 

Local Councils of Local

Government Association

of Queensland

Industrial customers

Includes mines and

power stations



## sunwater

Registered water service provider under the Water Act 2000

Government Owned Corporation established under the *Government Owned Corporations*Act 1993 (Qld)

Governed by an independent Board of Directors, who are appointed by the Governor in Council in accordance with this Act

#### Supports safe use

Provides

water to

bulk

0,000

## Regulates

Regulates

#### Community

In the communities in which we operate, our stakeholders include recreational dam users, suppliers and contractors, local government bodies and environmental interest groups

#### **Queensland Treasury**

Regulates Sunwater under legislation including:

Government Owned Corporations Act 1993 (Qld)

#### **Shareholding Ministers**

Our shareholding Ministers are:

#### The Hon. Cameron Dick, MP

Treasurer and Minister for Investment

#### The Hon. Glenn Butcher, MP

Minister for Regional
Development and Manufacturing
and Minister for Water

## Department of Regional Development, Manufacturing and Water

Regulates Sunwater under legislation including:

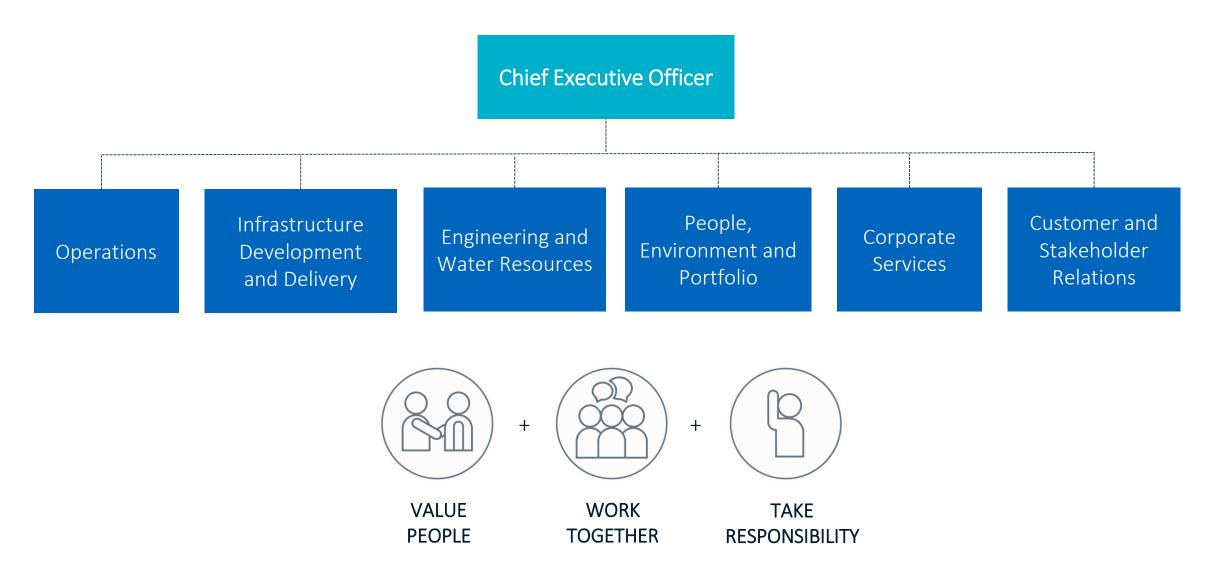
Water Supply (Safety and Reliability) Act 2008

Water Act 2000

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#### Sunwater structure





## Sunwater infrastructure projects in design or delivery



Rookwood Weir Project, Central Queensland — near-complete



Paradise Dam Improvement Project, Bundaberg — planning



Paradise Dam Essential Works, Bundaberg — complete



Rocklea Hydraulic Laboratory, Brisbane — planning



## Dam Improvement Program and why a collaborative model

- Dam Improvement Program part of wider Asset Management Strategy
- Implemented in response to Queensland Government regulatory guidelines



Fairbairn Dam Improvement Project, Emerald — completed 2020



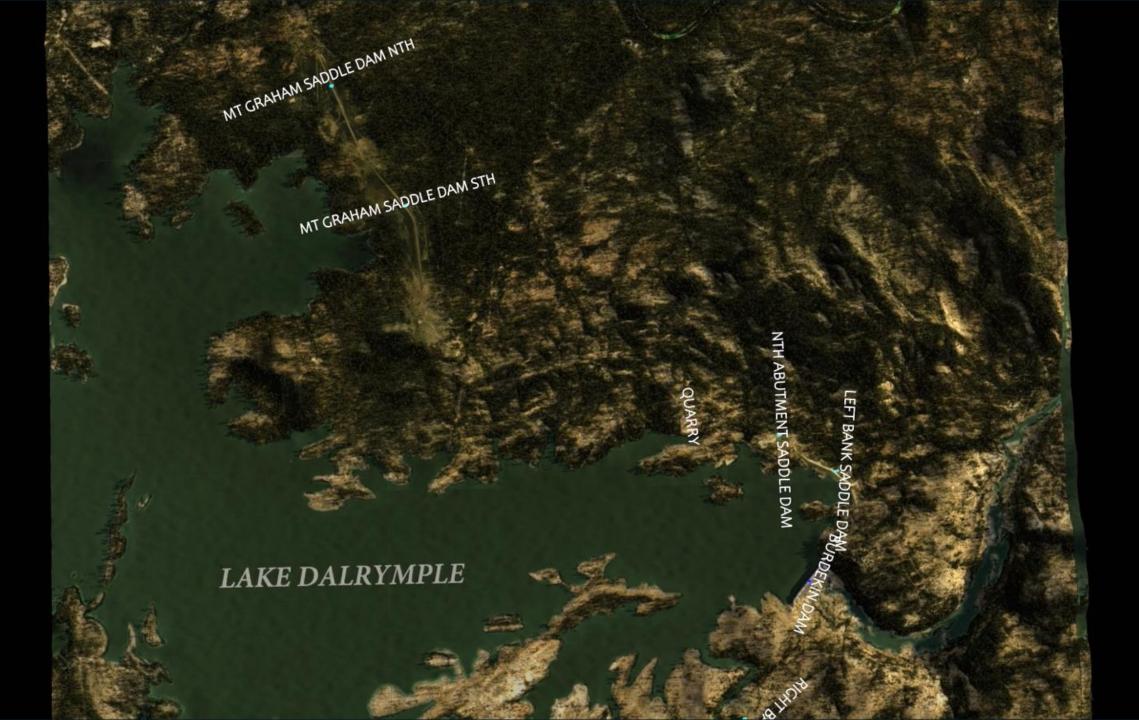
Burdekin Falls Dam



# Burdekin Falls Dam Improvement and Raising projects overview

Simon Thomas, Project Director





## Burdekin Falls Dam

Construction	Structure	Capacity	Catchment	Previous work
Completed in 1987	Mass-concrete ungated gravity dam  504 metre long, 35m high spillway  Four earth and rock-fill saddle dams	1.86 million megalitres at full supply level (FSL)	Approx. seven per cent the area of Queensland	Foundation Drainage Improvement Project, completed 2017

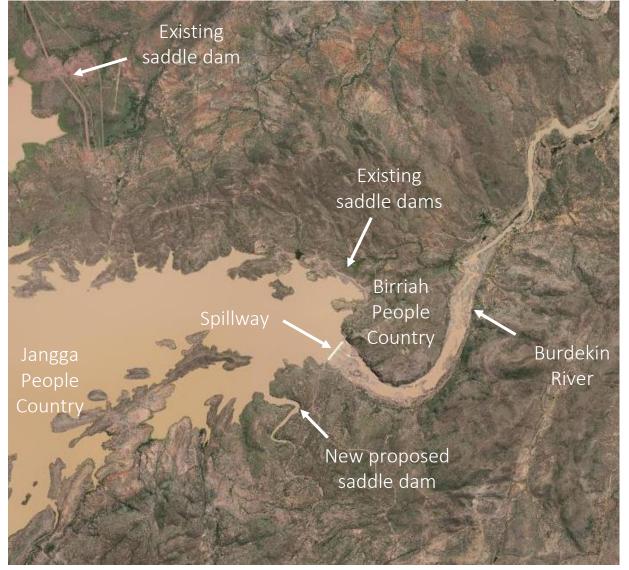


## Burdekin Falls Dam





Burdekin Falls Dam aerial and spillway







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#### Improvement and Raising projects' overview

Dam improvement	Two metre raising		
<ul> <li>Actions required to bring the dam in line with modern design and safety standards</li> <li>Dam is safe however, improvement work must be done Improvements will ensure the dam's long-term viability</li> <li>Environmental impact statement (EIS) not required</li> </ul>	Proposal to raise dam wall to increase water supply and support regional economic growth  Queensland Government approved Sunwater progressing EIS for two-metre raise.		

#### Combined dam improvement and raising

- Opportunity to deliver both projects simultaneously
- Potential to reduce construction costs through combining
- Both options assessed through combined detailed business case (DBC)



## Dam raising

#### **Proposed works**

Raising and widening the saddle dams surrounding Lake Dalrymple

Constructing a new right bank saddle dam

Raising the spillway (two metres) and abutments

Additional buttressing (strengthening)

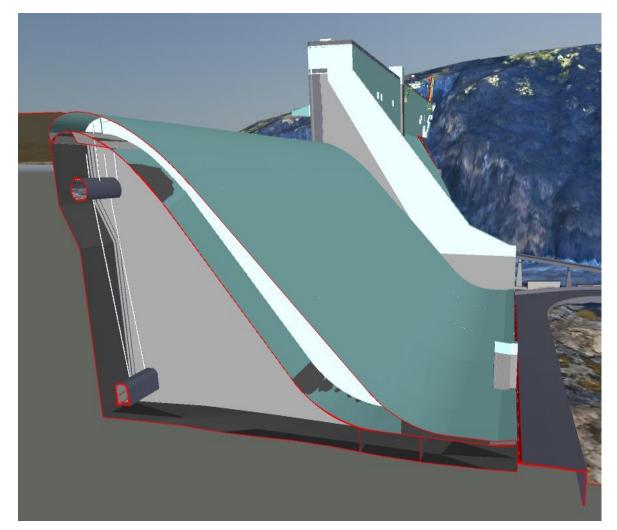
Storage capacity increase by 31 per cent and deliver approx.150,000 ML medium priority equivalent water

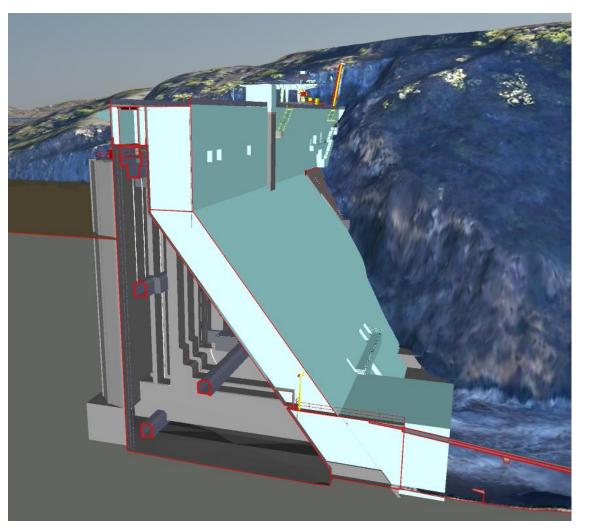
New dam capacity estimated at 2,434,240 ML

Will remain Queensland's largest dam



## Scope — spillway and abutment raising cross-section





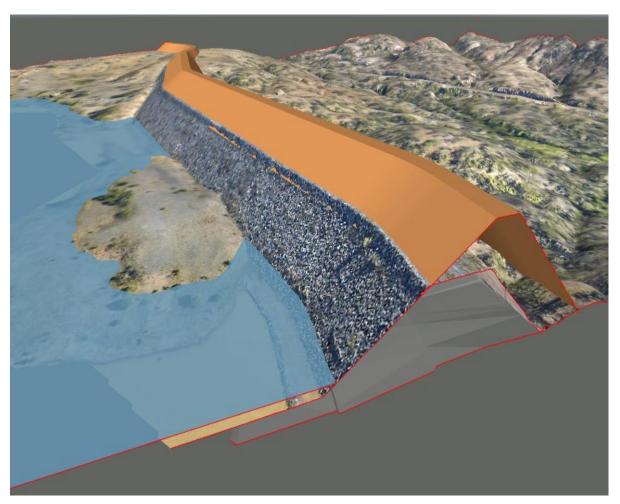
Draft preliminary design. Raised spillway and abutments shown in white



## Scope — saddle dam raising



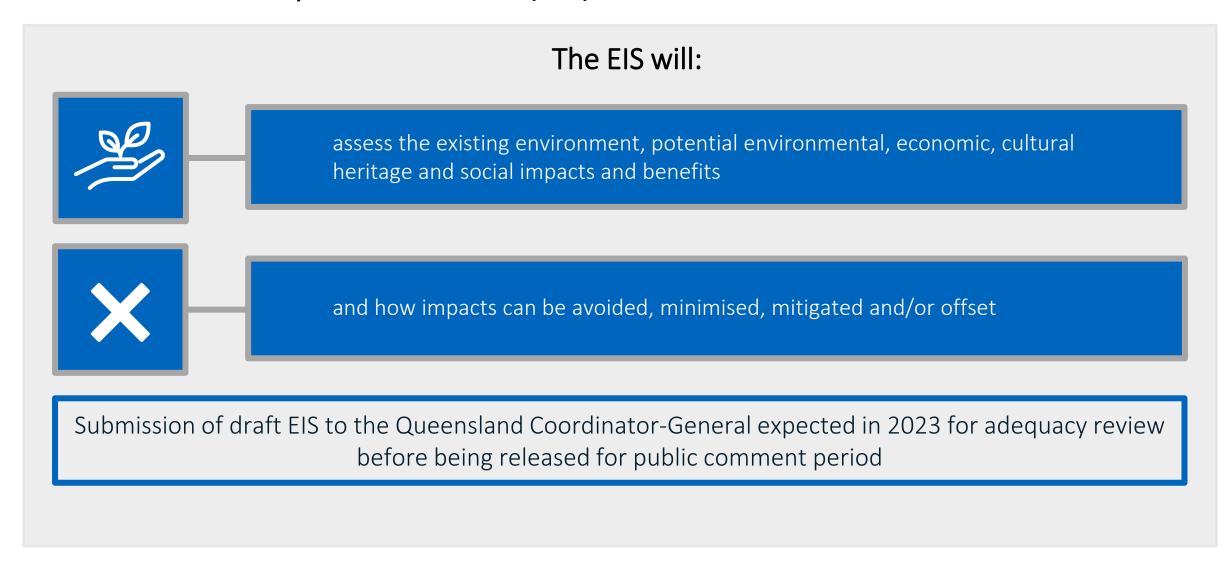
Current Mt Graham North Saddle Dam



Draft preliminary design. Example of saddle dam raising (orange)



### **Environmental impact statement (EIS)**





#### Planning for construction

- Planning and undertaking enabling works in next 18 months
- Commencement of works subject to environmental, cultural heritage and planning approvals
- New water / wastewater treatment plants, road and telecommunications upgrades
- Build of accommodation village to support approx. 350 workers

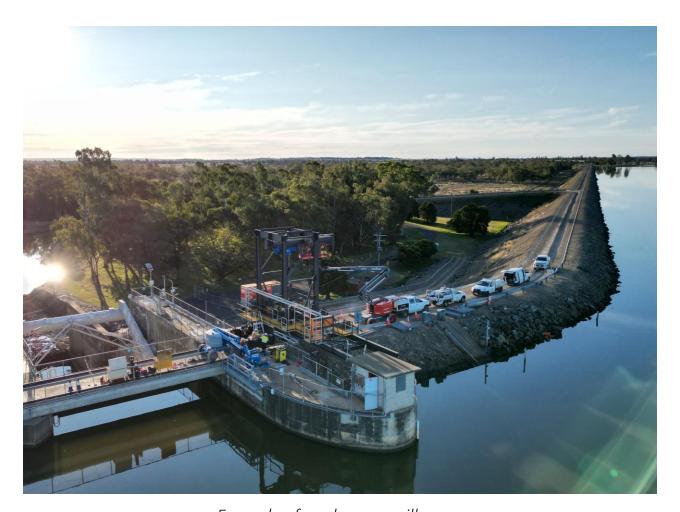




Above: Burdekin Falls Dam Road and an example accommodation village for illustrative purposes **sunwater** 

## Key risks and opportunities

- EIS conditions
- Construction material locality
- Weather and operations
- Scheduling
- Remote location
- Temperature



Example of works on a spillway -Sunwater's Coolmunda Dam Variable Counterweight Works



#### Geotechnical investigations

- Investigations progressing on dam characteristics and for clay, aggregate and sand resources
  - o cultural heritage and ecology field surveys to support
- Concept design estimate:
  - o more than 200,000 m3 concrete
  - o more than 2,000,000m3 of earthworks for saddle dams



Geologists undertaking mapping work



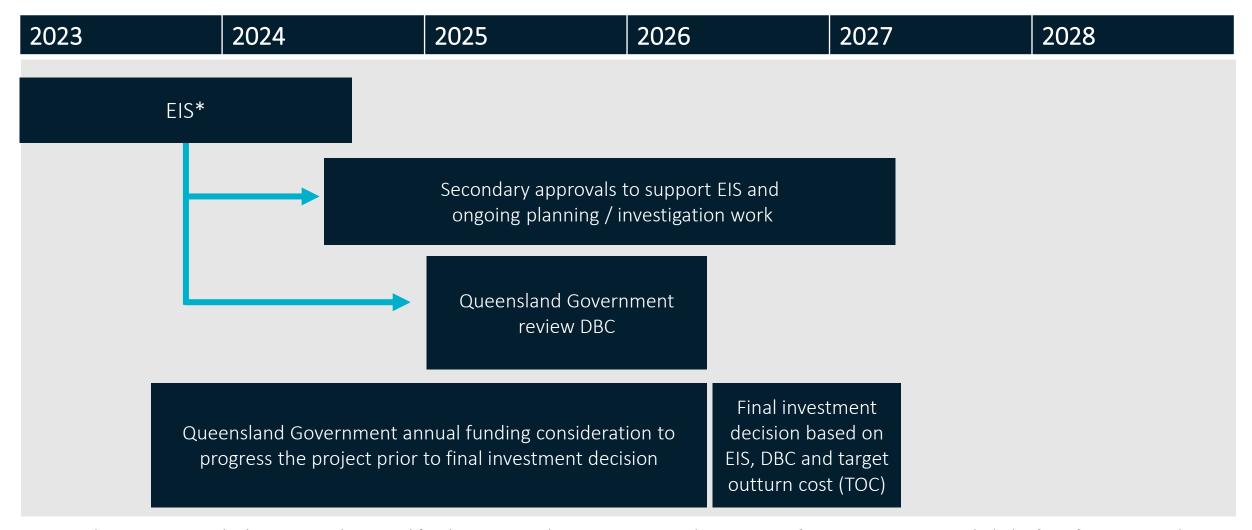
Logging sample data



Existing quarry from original construction

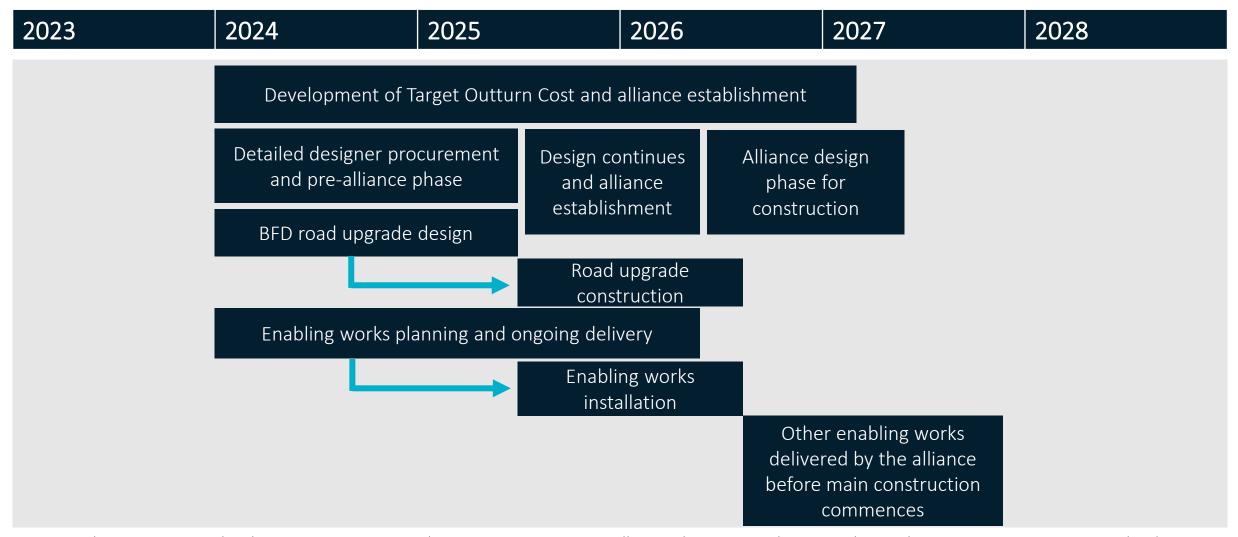


## Project approval and funding process



**NOTE:** Indicative timing only. \*EIS approval required for dam raising. This presentation is the property of Sunwater. Content included is for information and planning purposes only and subject to change. **Sunwater** 

### Alliance development, design and enabling activities process



**NOTE:** Indicative timing only. The pre-construction and construction activities will extend over several years and are subject to government approvals. This presentation is the property of Sunwater. Content included is for information and planning purposes only and subject to change. **sunwater** 

## Procurement process and contract packages

Steven Garrick, General Manager Procurement



#### Procurement at Sunwater

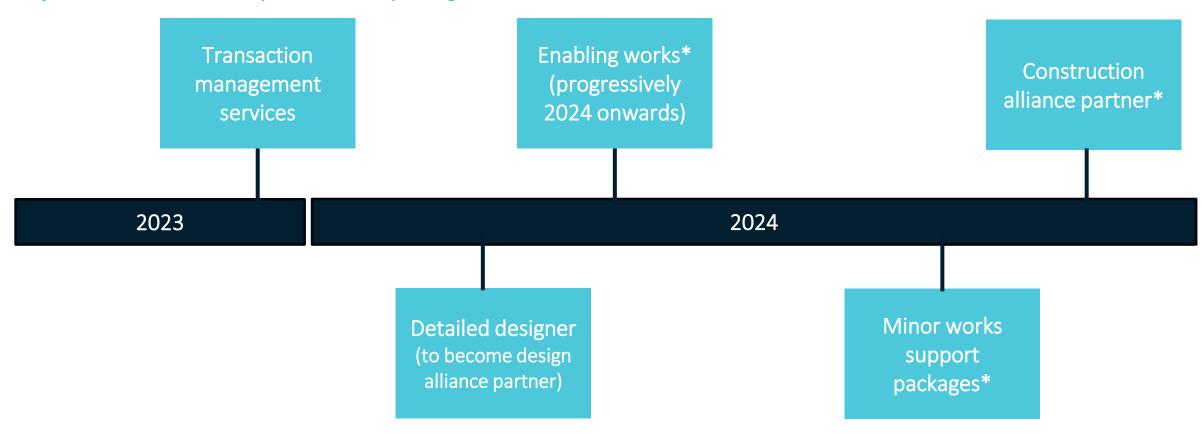






### Key packages and tender release timings

Projects consist of several procurement packages to enable alliance formation

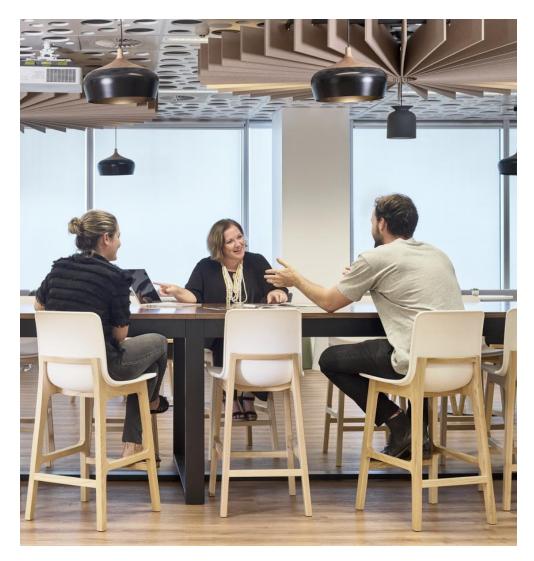


Further package-specific briefings will be held in addition to today's briefing.

Indicative timings only. \*Subject to EIS approval and consultation with regulatory agencies. This presentation is the property of Sunwater. Content included is for information and subject to change.

#### Transaction management services

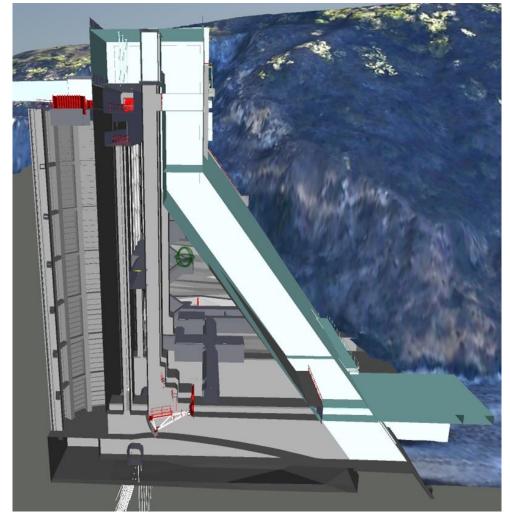
- Create work packages procurement strategy
- Manage industry engagement activities
- Manage tender sessions and evaluations
- Lead market-facing procurement and tender documentation
- Oversee design / construction partner procurement
- Two-phase market approach EOI & RFO
- Sunwater Consultancy Agreement





#### Design partner

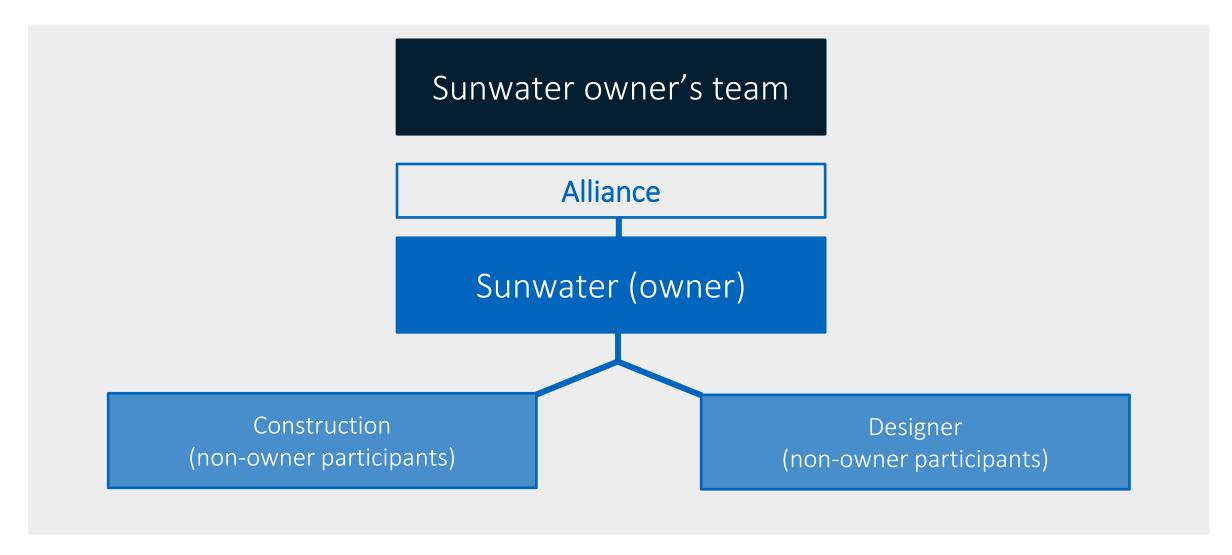
- Detailed designer procured to process design up to approx. 60 per cent under a front-end engineering design (FEED) agreement
- Appointed to the alliance prior to the construction partner
- Develop design to 100 per cent once alliance formed
- Undertake construction phase surveillance



Draft preliminary design. Raised spillway and abutments shown in white



## Delivery model





#### Alliance formation process

#### Design partner (to become design alliance partner with alliance formation)

- 1. Market sounding followed by tender submission and evaluation
- 2. Sunwater selects preferred design partner after evaluation
- 3. Sunwater Consultancy Agreement contract incentivised target cost model
- 4. Design partner appointed prior to construction partner EOI commences, before alliance formation.

#### Construction partner

- 1. EOI to market, tender submission and evaluation, shortlist two preferred tenderers
- 2. Shortlisted tenderers create proposals with initial target outturn cost (TOC) for evaluation
- 3. Sunwater selects preferred construction partner based on proposals
- 4. Construction partner and Sunwater reach agreed TOC for project delivery
- Project alliance agreement executed.



#### **Enabling works packages**



Road upgrades (design)

Late 2023

Upgrades at various road locations

Completed in advance of main works



Workers' accommodation village\*

Early to mid 2024

350-persons village



Airstrip reinstatement feasibility\*

**Early 2024** 

Survey, options development and subsequent design of upgrade works (if feasible)



Water and sewerage treatment plants\*

Early to mid 2024

Likely design and construct contract
—modular or containerised system.

Multiple parallel treatment trains



Telecommunications\*

Mid 2024

Microwave connection to camp/main office from Collinsville

Terminating at existing on-site infrastructure (including fibre connection)



<sup>\*</sup>Subject to EIS approval and consultation with regulatory agencies. Dates refer to approximate tender release date.

#### Project support packages



Geotechnical investigations

Late 2023 – early 2024

Saddle dam digging and boreholes and further material source investigations



Road upgrade works (construction)\*

Late 2025 - early 2026

Flinders Highway to dam upgrades

Developed by roads design consultant with Sunwater, Transport and Main Roads.



Site clearance works\*

Late 2023 – early 2024

Targeted vegetation
clearance for
geotechnical
investigations /
pre-construction
activities



Material sample testing\*

**Ongoing** 

Laboratory testing of samples derived from geotechnical investigations



Environment and approvals\*

2024 through to 2026

Ecology surveys and monitoring, offsets and secondary approvals support



<sup>\*</sup>Subject EIS approval and consultation with regulatory agencies. Dates refer to approx. tender release date.

## What we're looking for in tender submissions

Demonstrated capability / experience within your area of expertise

QLD Best Practice Principals and Ethical Supply requirements experience Focus on safety, quality and environmental performance – great culture

Sunwater highlighted as a long-term client of choice and strategic partner

Collaborative delivery model and alliance experience (where appropriate)

Appetite for companies to partner and remote working comfortability

Experience working with Social Enterprises and First Nations peoples



## Procurement processes and evaluation criteria

#### Single phase request for offer (RFO)

#### Straightforward procurements

- Released via QTenders
- Mandatory and comparative evaluation criteria
- Compliance with Queensland Procurement Policy

- Probity adviser
- Commercial departure negotiation and review
- Recommendation to award

#### Two phase (EOI) and RFO

#### Complex procurement or where market insights sought prior to RFO

- EOI released via ICN Gateway
- Mandatory and comparative evaluation criteria
- Organisational culture, expertise, capacity and experience
- Typically non-price

- Probity adviser
- Commercial departure negotiation and review
- Final commercial negotiation
- Recommendation to progress to RFO phase



#### Supporting platforms

#### Industry Capability Network (ICN)

- Register interest to receive notifications for project updates and associated work packages
- ICN provide guidance and support to suppliers to register
- Opportunity to register your interest project-wide
- https://bfd.icn.org.au/

# Industry Capability Network

#### **Supply Nation**

- Australia's leading database of verified Aboriginal and Torres Strait Islander businesses
- Sunwater is a Supply Nation member
- Committed to working with Aboriginal and Torres Strait Islander businesses to help grow supplier diversity
- https://supplynation.org.au/





#### Contact us

• Website: <u>www.sunwater.com.au/projects</u>

• Procurement phone: 07 3120 0074

• Procurement email: bfdprocurement@sunwater.com.au









# Probity briefing Rory O'Connor, O'Connor Marsden & Associates



## **Probity**

- O'Connor Marsden & Associates (OCM) external probity adviser
- Tenders evaluated in a consistent and equitable manner
- Key focus:
  - confidential process
  - communicate through the designated procurement contact point
- OCM available for any probity issues or concerns

Contact:

Rory O'Connor, Partner

Email: roconnor@ocm.net.au

Mobile: 0416 107 627





**Delivering water** for prosperity