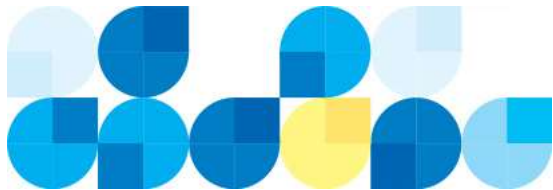




SunWater Dam Management Program

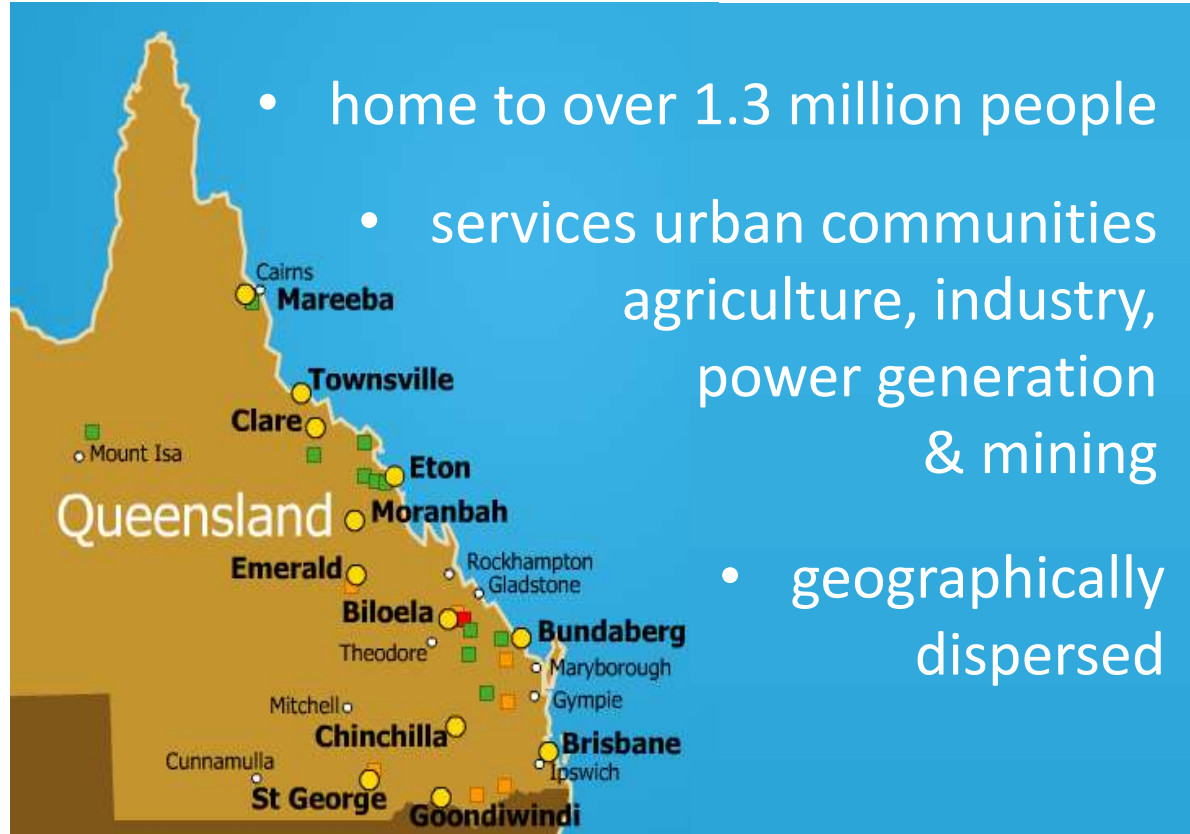
10 year pipeline of infrastructure upgrades



Alex Fisher
Executive General Manager, Asset Strategy & Delivery
SunWater Limited



water is critical
to Queensland's
regional economy



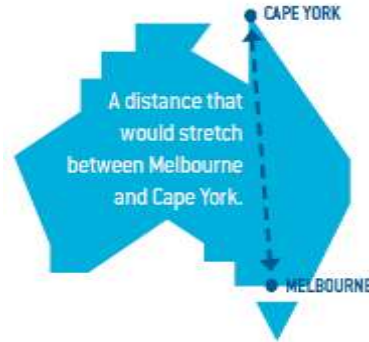


SunWater plays a vital role in water supply for Queensland

deliver in excess of
1500 gigalitres of
bulk water per year



THAT'S ENOUGH WATER
TO FILL SYDNEY HARBOUR
13 TIMES OVER



operate more than
3000km of pipelines &
water channels

service more than

5000
customers



Irrigation



Industrial



Urban

Our Strategy and Values

2017–2020



our business
 delivering value
 through water
 solutions for
 today &
 tomorrow



22
dams
19 owned
3 managed



2271km
of pipelines



62
weirs



885km
of water channels

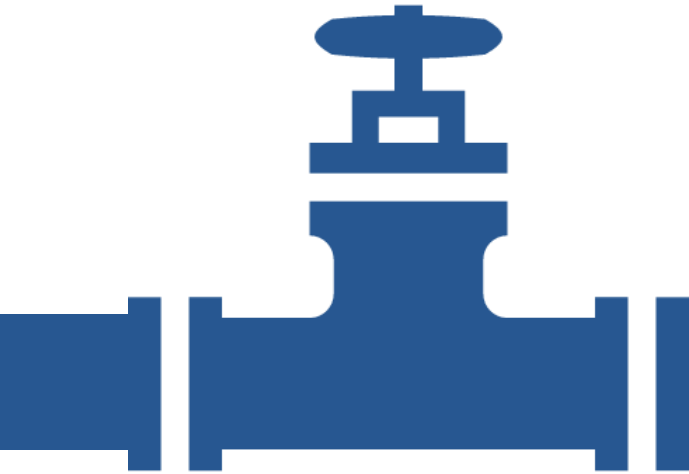


asset portfolio
valued at

\$13 billion

infrastructure

a foundational element
for SunWater customer service



pipeline of dam projects:



supporting regional growth



ensuring sustainable service



supporting regional growth

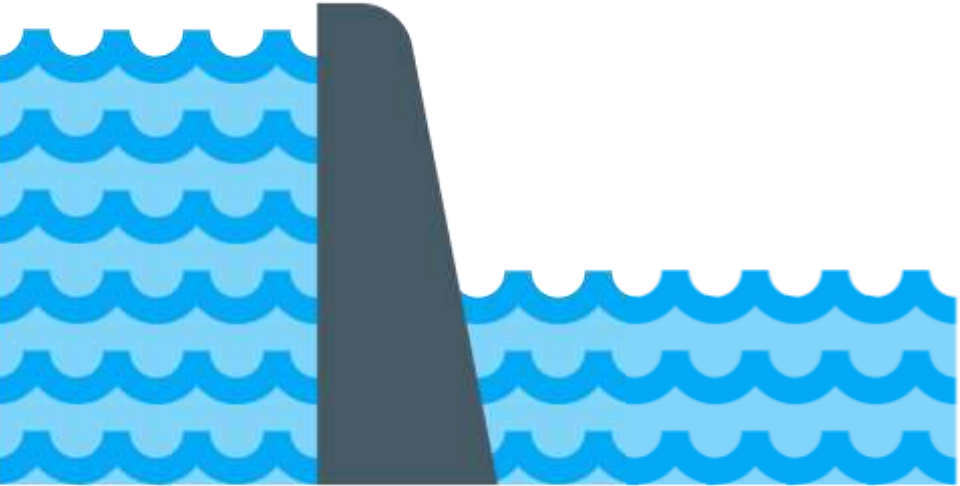


water solutions for:

- economic development
- social & recreational value
- good public health & safety
- sustainable communities & regional prosperity



- Supplementing or leveraging existing assets
- new demand driven infrastructure



a 10 year pipeline of
dam improvement projects



sustainable service delivery



principles of performance:

risk criteria

engineering standards

industry practice



operational environment:

historical flood data

flood predictions

consequence analysis



dam

improvements
driven by our
duty of care

\$880m committed for delivery by 2027



monitoring demand



current focus

program delivery & resourcing planning

commitment awaiting viable business case

Approved EIS

CONNORS RIVER DAM & PIPELINE PROJECT

NATHAN DAM & PIPELINES PROJECT

LOWER FITROY RIVER INFRASTRUCTURE INC. ROOKWOOD WEIR

Under Investigation

BURDEKIN DAM RAISING

ADANI WATER SUPPLY PIPELINE

committed but not yet started

Projects >\$10M

TEEMBURA
LESLIE
COOLMUNDA
WURUMA

Projects \$3 - \$10M

FRED HAIGH DAM
CALLIDE DAM
EUNGELLA

Projects < \$3M

KINCHANT
MOURA
PETER FAUST
WOONGARRA
ISIS
CANIA

evaluation & planning

Projects > \$100M

BURDEKIN SADDLE DAM & MONOLITH

PARADISE PRIMARY SPILLWAY

PARADISE SECONDARY SPILLWAY

under construction

Projects \$10 - \$100M

FAIRBAIRN SPILLWAY

PARADISE STRENGTHEN MONOLITH

BURDEKIN DRAIN & SPILLWAY

BOONDOOMA

the program today

what this means
for SunWater



\$880 million

in dam improvement projects
committed for completion by

2027

what this means
for SunWater



development of a further
\$3.62 billion
in dam upgrade/growth projects
which are ready to progress
pending market demand

what this means
for SunWater

we need to rethink
our delivery approach
if we are to be successful





operational spillways
weather sensitive works
brownfield sites
time sensitive program

the challenges

DELIVERY OPTIONS

- Alliance (Collaborative)
- Delivery Partner (Collaborative)
- Early Contractor Involvement (Collaborative)
- Direct Management (SW led)
- Design and Construct / EPC (Contractor led)
- Engineering Procurement Construction Management (Contractor led)
- Managing Contractor (Contractor led)
- Principal Contractor/ Construct Only (Contractor led)

DELIVERY OPTIONS

PROJECT DELIVERY ASSESSMENT

- Project size
- Complexity
- Scope certainty & risk
- Delivery schedule
- Stakeholders
- Resource requirements
- SunWater capability & resource availability

Projects > \$100M

BURDEKIN SADDLE DAM & MONOLITH
PARADISE PRIMARY SPILLWAY
PARADISE SECONDARY SPILLWAY

Projects \$10 - \$100M

FAIRBAIRN SPILLWAY
PARADISE STRENGTHEN MONOLITH
BURDEKIN DRAIN & SPILLWAY
BOONDOOMA

TEEMBURA
LESLIE
COOLMUNDA
WURUMA

Projects \$3 - \$10M

FRED HAIGH DAM
CALLIDE DAM
EUNGELLA

Projects < \$3M

KINCHANT
MOURA
PETER FAUST
WOONGARRA
ISIS
CANIA

PREFERRED DELIVERY STRATEGIES

- Collaborative Delivery
- Direct Management
- Principal Contractor
- Principal Contractor (Bundled Program)

DELIVERY WORKFORCE & RESOURCING STRATEGY

market relationships to deliver resource needs
aligned with delivery methods

Collaborative
Delivery

Direct
Management

Principal
Contractor

Civil Contractors

Outsourced

Civil Contractors

Designers

Majority
Outsourced

Engineering Designers

Technical Review Panels

Project
Management
& Controls

SunWater &
Outsource

PM & Controls

Recruiters

Support &
Assurance
Functionality

SunWater &
Outsource

Independent reviews

Assurance & Oversight

POST DELIVERY CAPABILITY

future capability objectives

SunWater Internal Resources
capability – skills & succession
capacity – resilience & depth
bandwidth – growth & development

Workforce Flexibility & Options
capability – skilled & trusted
capacity – responsive & timely
bandwidth – diversity

Ongoing Market Relationships
capability – skilled & trusted
capacity – reliable
bandwidth – collaborative

delivery success

depends on market relationships
| delivery today + capability for tomorrow¹⁶



what does this mean for you?
success demands partnership & collaboration



where to from here

market scanning | monitor growth & demand | foster development partnerships
market sounding | early market engagement | relationship based delivery
capability & culture development | foundation for new ways of working