# Integrated Water Supply Planning for the Greater Busselton Area
# "A Multifaceted Approach to Resilience"

## Next Water 2025

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Busselton Water acknowledges the Wadandi people, the traditional custodians of the land we operate within. We pay our respects to elders past and present whose connection and ongoing commitment to the lands, waters and communities on which we live, shows in the thriving environment around us.


## Kambarang

*October - November*

Season of colour and life. Days warm with nights still cool, winds and rains easing. Lots of baby ducks, emus, possums and kangaroos. Time to start moving camp towards the coastal areas under melaleuca trees, cave and estuary systems and river mouths. Maintain fish traps, spring tides ideal diving for crayfish and shellfish. Time to craft fishing spears and boomerangs traditional tools.

# Year at a Glance

## Our Water

**6.8 billion litres**
of groundwater extracted

**6.7 billion litres**
of drinking water supplied

**109.4 kilolitres**
per person, per year residential water use

**100%**
water quality health compliance

## Our Assets

**3**
water treatment plants

**9**
Bores

**5**
storage tanks (1 new)

**363.2 kilometres**
of pipeline (11.7km new)

## Our Community

**15,436**
residential and business customers

**310**
new customer connections

**39%**
customers now receive e-bills

**16**
new community partnerships

## Our Contribution

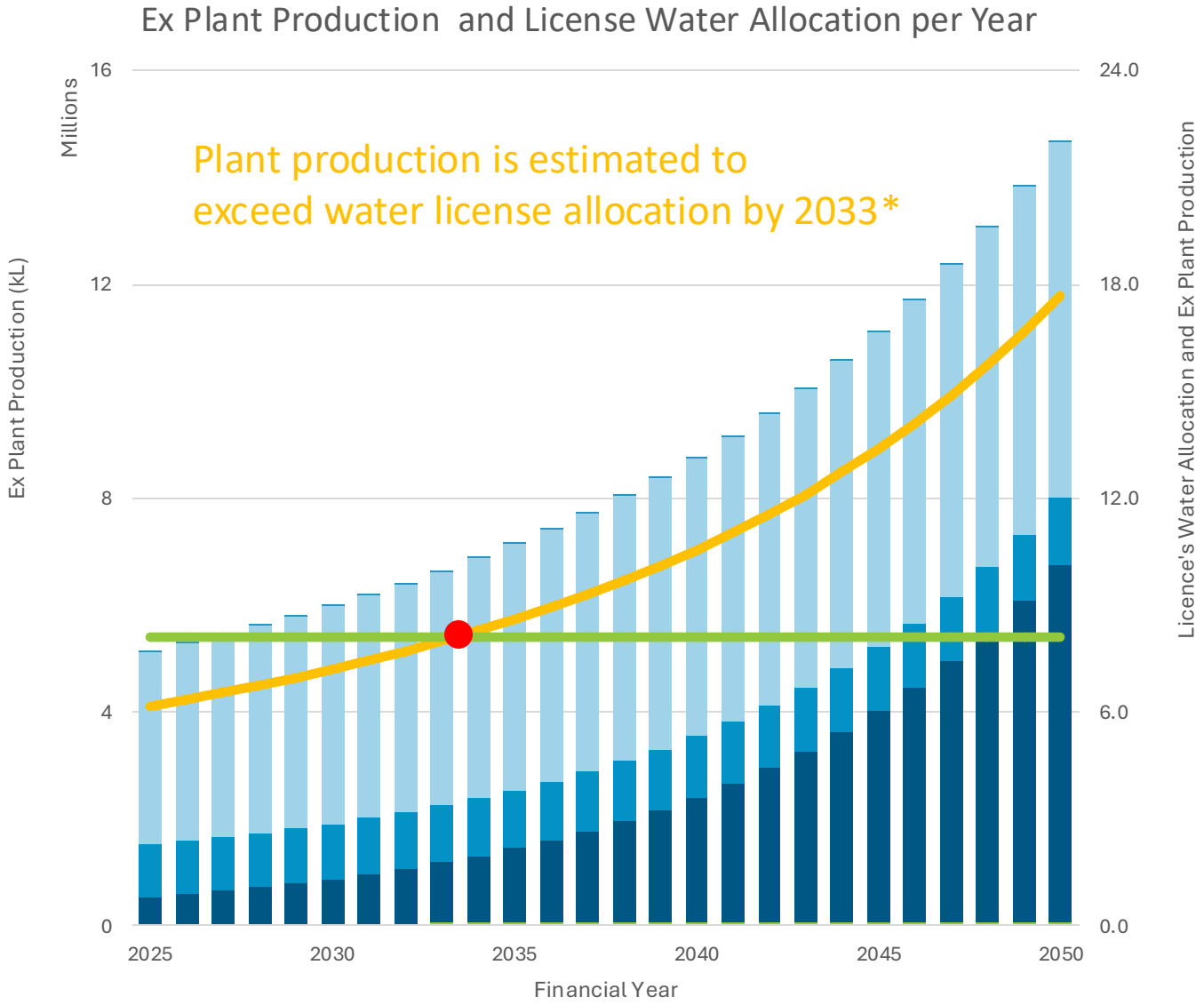
**$23.92 million**
Revenue

**$12.02 million**
capital investment in new water infrastructure

**$11.02 million**
profit before tax

**$2.3 million**
returned to Government by way of net accruals

# Current Challenges




In 2023/2024 water production increased 20% reaching 89% of allocated license limit (Busselton Water, 2024).

Population is expected to reach 100,000 by 2050 (City of Busselton, 2024).

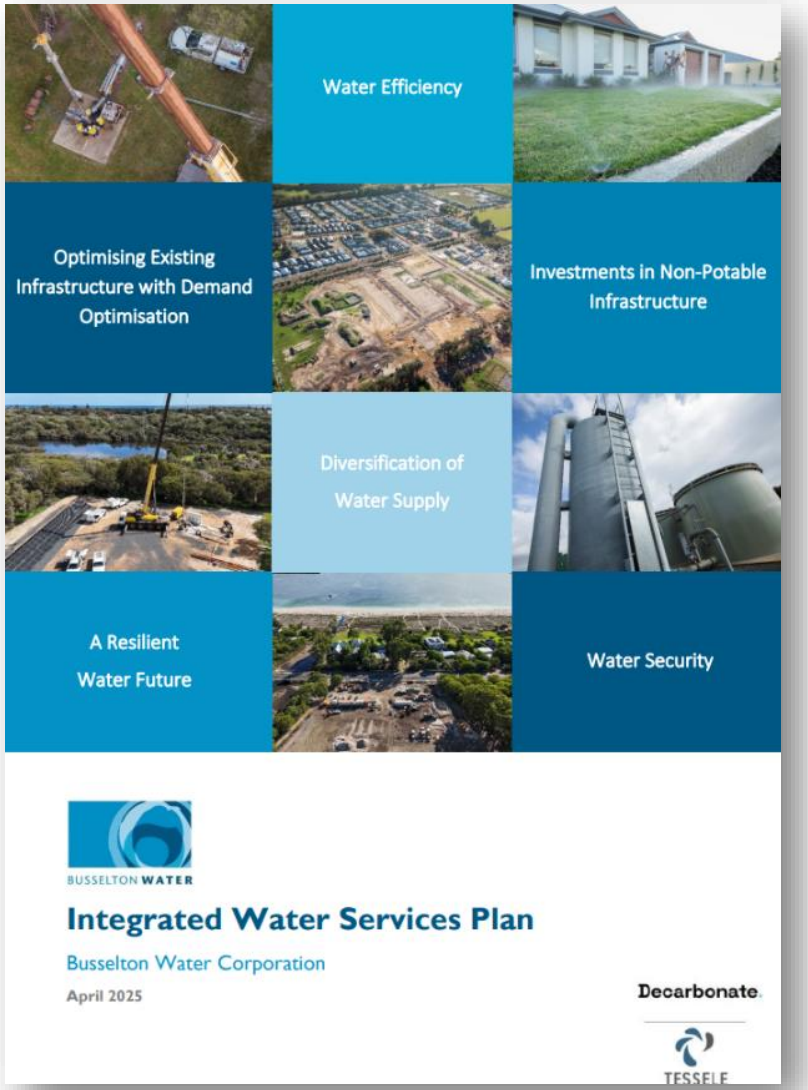
23% amplified water demand in short-stay accommodation during tourism peak season (Decarbonate & Tessele Consultants 2024).

Rainfall could decrease 12% to 18% by 2030 compared to historical averages (CSIRO, 2023).

Regulatory constraints limit groundwater extraction expansion.

Groundwater extraction would exceed salinity levels of 500 ppm within the next 30 years (Rockwater, 2023).

# Response to Challenges – Integrated Water Services Plan (IWSP)




## Collaboration

Government of **Western Australia**
Department of **Water and Environmental Regulation**

WATER CORPORATION

City of Busselton
Geographe Bay

KOOMAL DREAMING
CAPE CULTURAL EXPERIENCES

Karri karrak
ABORIGINAL CORPORATION

# IWSP Methodology

## Establish System Baseline

- Historical abstraction, consumption profiles
- Environmental constraints

## Model Variables

- Limited financial resources compared to large utilities
- Difficulty in managing financial changes

## Overlay Geospatial and Regulatory Landscape

- Land use, Land planning, vulnerable ecosystems
- Regulatory compliance (land, groundwater, water quality)

## Undertake Consultation

- Key stakeholders, Regulators,
- Customers, Industry bodies, first nations.

# Key Themes from IWSP

**Optimising Existing Infrastructure with Demand Optimization**

- Efficiency measures central to minimising consumption and water losses.
  - Smart metering
  - Time of use tariffs
  - Public education

**Investment in Non-Potable Infrastructure**

- Expanding recycled water infrastructure
- Managed aquifer recharge
- Decentralised water systems

**Diversification of Water Supply**

- Exploring alternative sources
- Development of inland borefield
- Investigating small-scale desalination
- Renewable energy integration

**Funding and Implementation**

- Combination of public and private sector investment
- State and federal government funding sources
- Public-private partnerships (PPPs)
- Green financing options (climate bonds)

Resilience

Forward thinking

Adaptive and Agile

COMES

SHORT TERM

MEDIUM

## 2024-2027

Public Education & Awareness Campaigns

Time of Use Tariffs

Smart Water Metering Expansion

Managed Aquifer Recharge (Feasibility Study)

Infrastructure Pressure Management


## 2028-2035

- Recycled Water Infrastructure Expansion
- Decentralised Water System – Rainwater and Stormwater
- Small-scale Desalination Pilot (Feasibility Study)
- Climate-resilient Groundwater Management


## 2035 and Beyond

**Full** Integration of Alternative Water Sources

Renewable Energy Integration

G TERM

OUTCOMES

SHORT T

# Expected Outcomes/Future State

Enhance climate resilience

Long-term water security for population and tourism growth

Increased aquifer sustainability and reduced salinity

Up to 5 GL/yr potable water savings

10-15% reduction in non-revenue water losses

Delivering the IWSP will be underpinned by a strategic blend of public and private investment, leveraging government grants, public-private partnerships, and green financing to drive cost-effective, sustainable water security solutions for Busselton Water.


THANK YOU
Keip (water) the element of life (artist Natalie Clark from Djrliny Designs)