



# Water Security Strategy

----- 2022 - 2042



**Central Highlands**  
Regional Council





East Nogo Water  
Treatment Plant

## ACKNOWLEDGMENT OF TRADITIONAL OWNERS

Central Highlands Regional Council acknowledge the First Peoples – the Traditional Owners of the lands where we live and work, and we recognise their continuing connection to land, water and community. We pay respect to Elders – past, present and emerging – and acknowledge the important role Aboriginal Peoples and Torres Strait Islanders continue to play within the Central Highlands region.

## MESSAGE FROM THE MAYOR



Council is committed to ensuring that our communities have sustainable water supplies to enable population growth and promote industries that allow our communities to flourish.

This water security plan provides Council's commitment towards ensuring secure water sources are available and that water demands are managed effectively over the next twenty years and beyond.

Council is committed to working with our key stakeholders, including Sunwater and the Department of Regional Development, Manufacturing and Water to ensure that council has adequate water sources available to cater for growth demands during periods of drought.

We will also work with our communities to ensure water demands are managed efficiently and preserved during periods of low rainfall or other emergency events.

**Kerry Hayes,**  
Mayor

# INTRODUCTION

The Central Highlands Water Supply Security Strategy provides a strategy on how best to manage our water sources and secure additional water for the region. It evaluates the options available for future water supplies, and when they may be required.

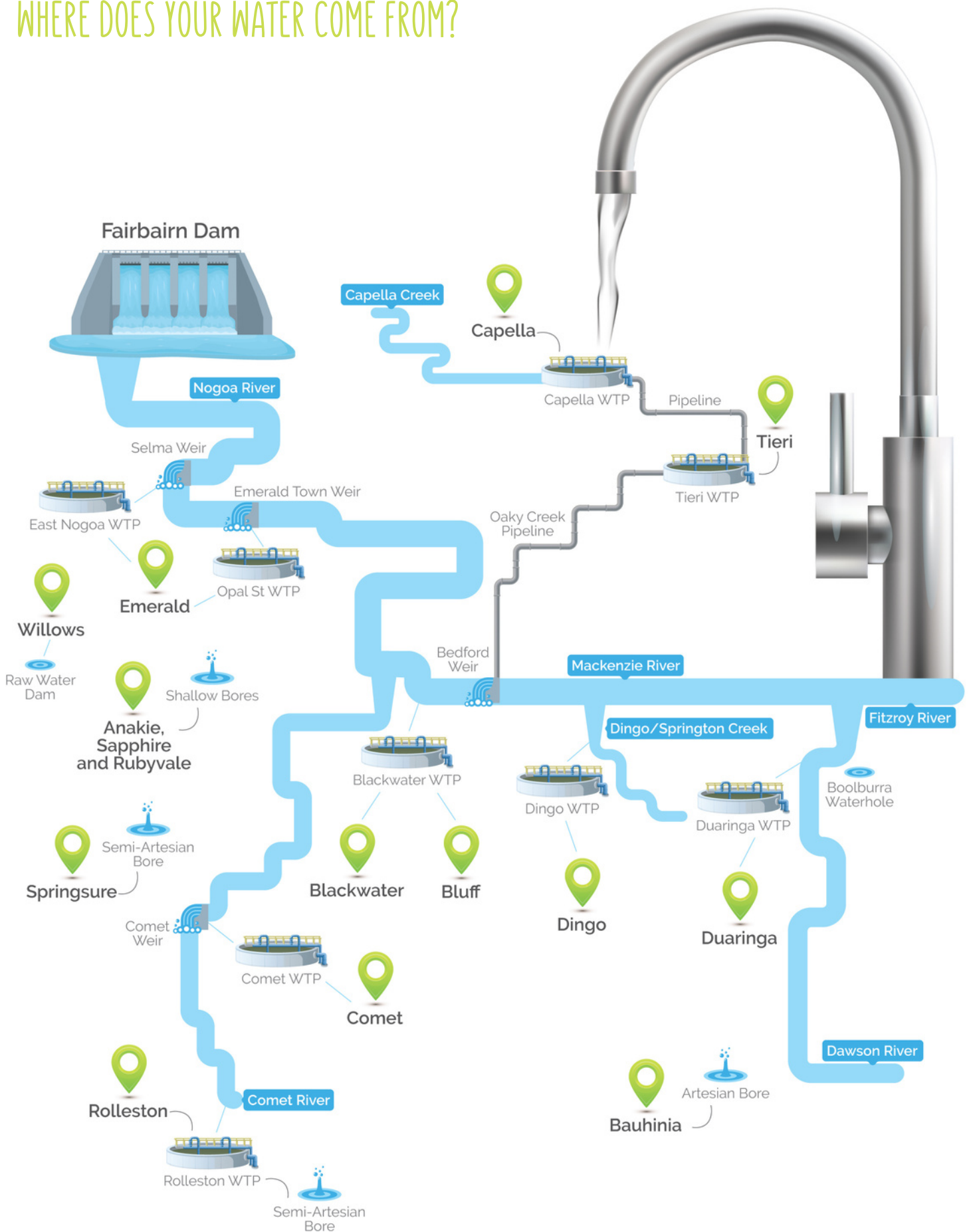
Council is also looking to provide better security for existing schemes and allow for climate change. This strategy relates to water sources only, and does not consider the treatment plants or pipelines within the networks.

# STRATEGIC ALIGNMENT



Council has developed a Water Supply Security Action Plan to support the strategy which outlines actions that will be undertaken over the next ten years. The action plan will be reviewed every three years to ensure that the actions support council's Water Supply Security Strategy.

# WHERE DOES YOUR WATER COME FROM?





# HOW RELIABLE IS YOUR WATER SUPPLY SCHEME BASED ON ITS CURRENT SOURCE?

## Dam and river supply schemes

Township	Water source	Current source reliability	Future source reliability (2041)
Blackwater/Bluff	Nogoa-MacKenzie Scheme - Bedford Weir	89.9%	89.9%
Capella	Capella Creek – off-stream storage dams & supplement from Tieri	94%	84%
Comet	Comet River-Weir	53%	28%
Dingo	Springton Creek Dingo Creek Overland flow	99%	98%
Duaringa	Dawson Scheme - Boolburra Waterhole	98%	96%
Emerald	Nogoa-MacKenzie Scheme – Fairbairn Dam	98%	96%
Rolleston	Comet River – off-stream storage dam	93%	84%
Tieri	Nogoa-MacKenzie Scheme - Bedford Weir	89.9%	89.9%

When reliability is less than 100% it means that some years our water supply sources may not be able to deliver our full unrestricted water demands. The term unrestricted water demands refers to neither community restrictions nor Sunwater restrictions. When this happens during periods of drought, council needs to implement water restrictions when the water sources reach adopted trigger levels. We need our community's support to adhere to restrictions at these times to ensure that our town water supplies do not run out. In some cases council can supplement from

alternative sources, however, water conservation forms part of this strategy to manage water source shortfalls during dry years.

### Bore supply schemes

Anakie, Bauhinia, Sapphire, Rubyvale, Rolleston, Springsure and the Willows (raw water scheme) have insufficient long-term groundwater monitoring data available to establish reliability. However, these schemes can be supplemented by larger river schemes during periods of drought by water carting.

## WATER ALLOCATIONS AND OUR PROJECTED FUTURE WATER DEMANDS



12 MANAGED WATER DAMS



4 WEIRS (2 MANAGED BY SUNWATER)



CURRENT 42,125\* POPULATION

\*Equivalent figure - domestic + commercial



12,379 ML ALLOCATION TOTAL

### CUSTOMERS SERVED

Township	Currently served	Projected ultimate EP population
Anakie	253	515
Bauhinia	64	64
Blackwater	9,542	13,789
Bluff	707	1,021
Capella	1,878	2,605
Comet	191	443
Dingo	309	427
Duaringa	532	644
Emerald	22,306	30,937
Rolleston	270	428
Sapphire	620	829
Rubyvale	716	958
Springsure	1,867	3,863
Tieri	2,870	3,234

EP: Equivalent Person  
YEA: Yamala Enterprise Area

### ALLOCATION SUMMARY

Township	ML Demands 2021	ML Demands 2041	Current ML allocation	ML Allocation shortfall
Anakie	30	61	84	-
Bauhinia	17	17	37	-
Blackwater, Bluff	1,526	2,188	2,750	-
Blackwater Bluff including Capella	1,875	2,672	2,750	-
Capella	349	484	>863	-
<b>Comet</b>	<b>68</b>	<b>142</b>	<b>40</b>	<b>102</b>
Dingo	56	78	-	-
Duaringa	200	234	350	-
Emerald	4,336	5,843	6,700	-
<b>Emerald including YEA</b>	<b>5,651</b>	<b>7,158</b>	<b>6,700</b>	<b>458</b>
Rolleston	61	86	450	-
Sapphire, Rubyvale	207	277	650	-
<b>Springsure</b>	<b>234</b>	<b>485</b>	<b>425</b>	<b>60</b>
Tieri	435	490	-	-

The tables above represent the current population served in each town across the region and the necessary water requirements, and forecasted allocation shortfalls. Please note, as displayed in

the 'Allocation Summary table' Comet, Emerald (including YEA) and Springsure would require an investment of allocation in the future if the population growth and community behaviours remain the same.



# WATER SUPPLY SECURITY STRATEGY – FIVE PILLARS

Priorities are structured under the five pillars:

**1 DEMAND MANAGEMENT**

Increase water efficiency in our communities through both wise use and reduction of water use. This will in turn reduce or postpone the need to build more dams, drill more boreholes or seek alternative water sources.

- Water efficient devices
- Community education
- Demand management and water restrictions
- Review water tariffs

**2 SECURE ALLOCATION**

Council has a set water allocation each year from sources managed by Sunwater / RDMW. Applying for increased allocations and investigating alternative sources will ensure that council is able to meet growth demands in our communities.

Additional allocation required for Comet, Emerald and Springsure to meet future demands prior to existing allocation being exceeded

**3 IMPROVED MONITORING**

Improved monitoring of water sources provides information to supports council in sound decision-making. This helps council make more informed decisions on pumping from these sources and on water restrictions which might be required during periods of extended drought.

- Groundwater bore monitoring
- Stream gauge monitoring

**4 SYSTEM AUGMENTATION**

Upgrade works that allow Council to monitor, pump, treat and pipe potable water supply.

- Automate flood harvesting for Capella, Rolleston and Dingo
- Pipeline and water treatment plant replacements and upgrades
- Investigate increasing raw water storages

**5 ADVERSE SUPPLY PLANNING**

Adverse water supply planning will outline what actions council will take based on set triggers such as dam water levels to conserve town water sources.

- Formalise contingency supplies for emergency scenarios with government agencies
- Develop an adverse water supply plan
- Investigate the viability of additional groundwater bores



Blackwater water treatment plant



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