

WSPP

Water Service Providers' Partnership

Kenilworth Drought Response Plan

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Introduction

Unitywater and Seqwater work together to supply reliable, affordable and sustainable drinking water to consumers in South East Queensland (SEQ), both now and in the future.

Seqwater owns and operates the region's bulk water supply system including dams and weirs; water treatment plants; and climate resilient water sources. The interconnected SEQ Water Grid forms the majority of the bulk water supply system and enables us to move drinking water to where it is needed. While most South East Queenslanders are serviced by the Water Grid, we also supply drinking water to about 55,000 people living in off-grid communities – rural towns and island communities that are not connected to the Grid, but form part of the bulk water supply system.

Each of these off-grid communities have their own local water source and management of this water is supported by a Drought Response Plan, which outlines how water will be managed when local supply becomes limited, to ensure levels of service are met.

This Drought Response plan outlines drought response measures that will be put in place to respond to drought.

Unitywater is the "Water Retailer" for Kenilworth, taking water from the bulk water supply system and delivering it to households and businesses in Kenilworth as well as the rest of the Sunshine Coast, Moreton Bay, and Noosa local authority areas.

About Kenilworth

Kenilworth is located in the Mary Valley behind the Blackall Ranges. It falls within the Sunshine Coast Council (SCC) local government area. The township is situated on the Mary River, at its junction with Obi Obi Creek. The primary water source for the town is a wet well located in a sandbank of the Mary River near the junction with Obi Obi Creek (refer Figure 1).

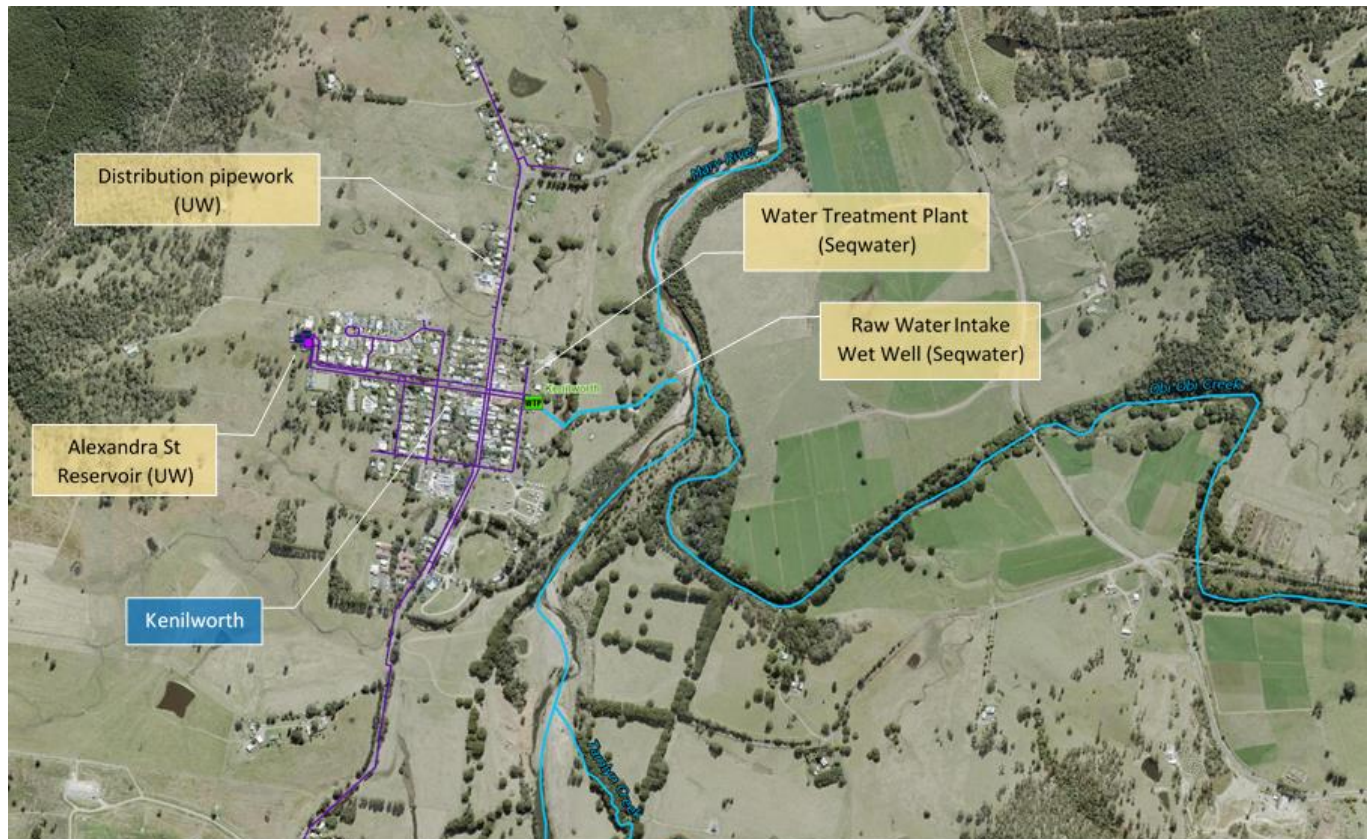


Figure 1: Kenilworth Water Supply Overview

Source: Seqwater Spatial

The Mary River is part of the Mary River Valley Water Basin. The Mary Valley Water Supply Scheme is administered by the Department of Regional Development, Manufacturing and Water (DRDMW), which is responsible for managing water resources across Queensland, including providing sustainable water allocation for the environment, agriculture, industries and population centers. DRDMW manages the water access entitlements from the Mary River and Seqwater holds a licence to take 220 ML/annum for town water supply, as issued by DRDMW. Seqwater cannot divert more than this allocated volume in any year. All other entitlements (including irrigators) that fall under the Water Resource Plan are not included in this Drought Response Plan. DRDMW is responsible for imposing restrictions on these users during drought.

Seqwater treats water from its entitlement using a local Water Treatment Plant, to supply drinking water to the township of Kenilworth, including a local Tanker Filling Station. The Treatment Plant has a capacity of 0.4 ML/day and caters to current and future demand up to approximately 2027 (The 24-hour capability of the WTP is forecasted to be exceeded by MDMM demand in approximately 2027, subject to further assessment of other demand volumes. The average day demand is still within the existing WTP capability). The Kenilworth township water supply is considered a run-of-river system, and although there is a wet well which facilitates pumping to the water treatment plant, there is currently no storage for source water upstream of the treatment plant. As

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such, the full Treatment Plant capacity can only be realised when there is sufficient water available in the wet well, noting that the capability is also limited by variability in quality of the incoming raw water supply.

When there is insufficient raw water available for the Treatment Plant to run at the required flow rate, or at all, there is facility available at the Treatment Plant for treated water to be tankered in. The volume of water that tankers can supply to the town is based on potable water demand and the availability and capability of required assets, and can also be limited by potential impact to local traffic and the community.

Unitywater is responsible for delivering the treated water to the homes and businesses in Kenilworth. Unitywater also own a Tanker Filling Station that it is generally available for customer use. The water purchased from the Tanker Filling Station is included in the volume provided by the Treatment Plant and/or carted to the Plant during drought, and as such may be limited at times (this is described further in the Drought Response Plan).

Drought Response Plan: Kenilworth

Water supplies in drought will be managed through a combination of demand management and supplementing supplies with water carting. Specific triggers have been identified for drought response actions (Figure 2 and Table 1) to provide clarity for planning. The actions listed are not intended to be limiting – additional actions may be required for drought response. Seqwater will monitor the river flows and advise Unitywater when each trigger is reached.

Demand Management

This Drought Response Plan outlines measures necessary to sustain water supplies to the local community in times of drought, due to a shortage in their local water supply availability. From this perspective, it is not necessary for the local community to be subject to restrictions that apply to regional drought triggers, however, Unitywater could implement water restrictions if Seqwater has to cart water into Kenilworth to maintain the supply.

It is noted that in the event of low storage volume at Baroon Pocket dam, regional restrictions will be applied to improve supply capacity which may include Kenilworth.

The Unitywater Tanker Filling Station is located at Kenilworth Water Treatment Plant. Generally, the Tanker Filling Station is available to provide treated water for local off-network households and commercial carters.

When the local area is experiencing dry conditions, demand for water from the Tanker Filling Station (and a nearby hydrant) typically increases, as residents from nearby off-network households seek to supplement their water supply. As such, from Drought Trigger level 3, commercial water carting companies may be encouraged or required to source their water from elsewhere (such as Yandina). Measures may also be implemented to limit the take from the Tanker Filling Station. However, the Kenilworth Tanker Filling Station will remain open for direct use by local off-network households.

Contingency Supply

Seqwater commits to tankering up to 300 kL/d when water is no longer available from the wet well, and Unitywater commits to managing local demand within this volume.

The water carters engaged by Seqwater during times of flood and drought may cart from Yandina but will be advised by Unitywater of the most appropriate location in the network at the time, and will follow a traffic management plan designed to limit the impact to traffic through the town of Kenilworth.

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Future Drought Response Plans for Kenilworth

The Drought Response Plan has been developed based on currently available infrastructure. The Drought Response Plan will be updated every 5 years or if there are changes to the local infrastructure

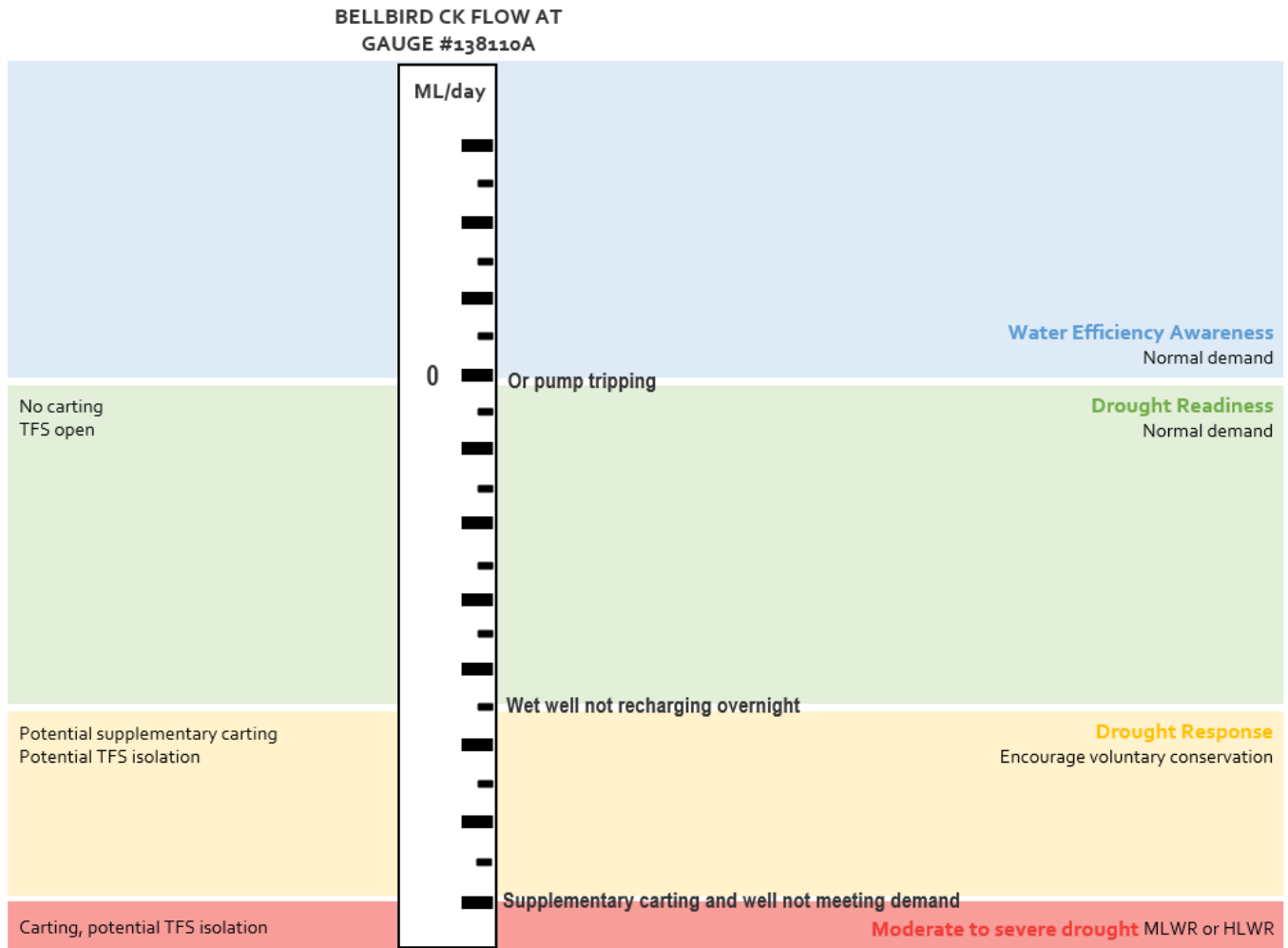


Figure 2: Kenilworth Drought Response Overview

TFS = Tanker filling station, MLWR = Medium level water restrictions. HLWR = High level water restrictions

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Table 1: Kenilworth Summary Drought Response Plan

Level	Trigger (Local Supply Level)	Residential Demand Management	Water Carting	Tanker Filling Station (TFS) / Hydrant Standpipe Access	Monitoring Local Supply Availability	Note
Responsibility	Set by Seqwater	Unitywater	Seqwater	Unitywater	Seqwater	
Normal operations	Flow above 0 ML/d at Bellbird Creek gauging station #138110A	Normal demand			Monthly	
1 - Drought readiness	Flow drops to 0 ML/day at Bellbird Creek gauging station #138110A and/or problems are experienced with river well drawing down close to or tripping stop pump trigger	Normal demand			Weekly	
2 – Drought response	Wet well not recharging overnight	Communications encouraging voluntary conservation	Potential supplementary carting	<ul style="list-style-type: none"> • Potential TFS isolation and hydrant standpipe restrictions. • Commercial water carters will be encouraged to source water from elsewhere. 	Daily	Water for carting will be sourced from the water grid
3 – Moderate to severe drought	Supplementary water carting and well not meeting demand	Medium to High Level Water Restrictions Encourage 140-120 L/p/d	Carting up to 300 KL/d	As above	Daily	

Note: Drought exit will be staged as water supply achieves the level of each preceding drought trigger level, with removal of actions at each level as appropriate.