

WSPP

Water Service Providers' Partnership



North Stradbroke Island (Minjerribah) Drought Response Plan

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Introduction

Redland City Council 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.

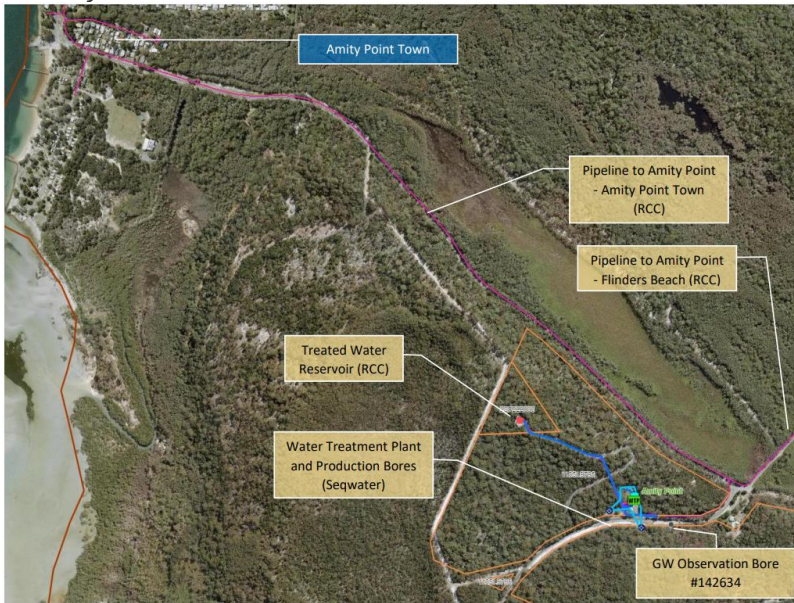
Each of these off-grid communities have their own local water source and management of this water is supported by a Drought Response Plan, which outlines how water will be managed when local supply becomes limited, to ensure levels of service are met.

This Drought Response plan outlines drought response measures that will be put in place to respond to drought. Redland City Council is the “Water Retailer” for North Stradbroke Island, taking water from the bulk water supply system and delivering it to households and businesses within their service areas, on North Stradbroke Island.

About North Stradbroke Island (Minjerrabah)

North Stradbroke Island (Minjerrabah) is located within the Redland City Council local government area. The three communities: Amity Point, Dunwich and Point Lookout (refer Figure 1) are situated along the island's coastline. The primary water source for the towns is an aquifer which underlies North Stradbroke Island, accessed via bores in the vicinity of each community.

a. Amity Point:



b. Dunwich:



c. Point Lookout:

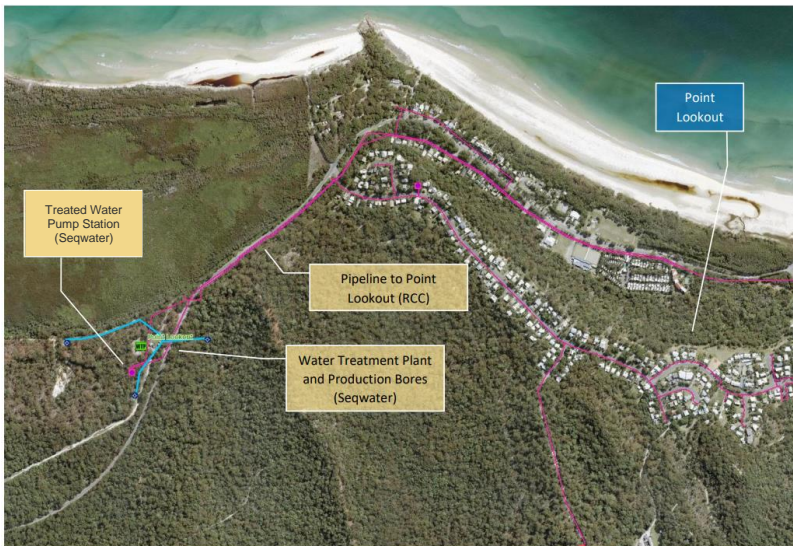


Figure 1: North Stradbroke Island (Minjerribah) Water Supply Overview

Source: Seqwater Spatial

The Island's water supply is part of the Logan Water Basin. The Logan Basin Water Resource Plan is administered by the Department of Regional Development, Mining 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 aquifer and Seqwater holds licence's to take the following for town water supply: 200 ML/annum for Amity Point; 750 ML/annum for Point Lookout; and, 500 ML/ annum for Dunwich, 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 entitlements using three local Water Treatment Plants, to supply drinking water to the townships of North Stradbroke Island. The three Treatment Plants have the following capacity: 1.8 ML/day for Amity Point; 1.97 ML/day for Point Lookout; and, 1.38 ML/day for Dunwich, and caters to current and future demand within the planning horizon.

When there is insufficient raw water available for any of the Treatment Plants to run at the required flow rate, or at all, Seqwater would use water tankers to deliver treated water into the local network. 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.

Redland City Council is responsible for delivering the treated water to the homes and businesses in North Stradbroke Island using the existing potable water network.

Drought Response Plan: North Stradbroke Island (Minjerribah)

It is highlighted here that the aquifer underlying North Stradbroke Island is considered a highly secure water source and shortages in local water supply availability have not been experienced nor expected to be experienced. In the event of local water supply drought however, this 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 well levels and advise Redland City Council 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, Redland City Council will put water restrictions in place if Seqwater has to cart water into North Stradbroke Island to maintain the supply..

Contingency Supply

Although the aquifer is considered a highly secure supply, in the event of drought and insufficient availability of water from one of the local source bores, the contingency plan, for the levels presented in this plan, involves carting water from one of the two other North Stradbroke Island communities. Carting from other island communities and/or the SEQ Water Grid are alternative water source options if required. The water carters engaged by Seqwater during times of drought will follow traffic management plans designed to limit the impact to traffic through the townships.

Tanker receiving infrastructure is planned to be installed at each township's WTP. Water carter availability on the Island has been identified as a potential obstacle. The drought trigger levels and monitoring is intended to allow for carters to be sourced from the mainland (24 hours lead time required).

Future Drought Response Plans for North Stradbroke Island (Minjerribah)

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.

Bore 14400016 STANDING LEVEL
(Bore 142634 STANDING LEVEL)

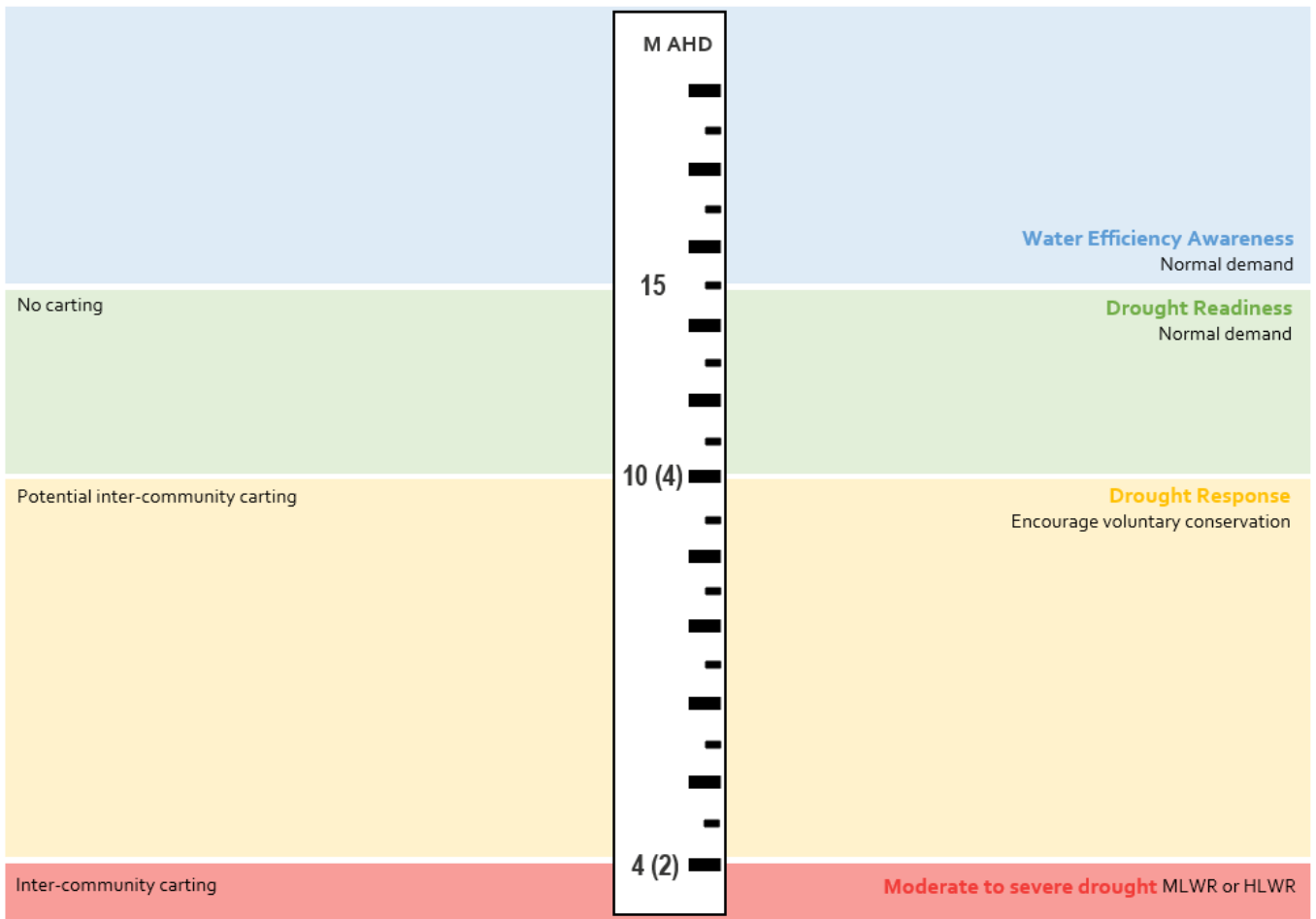


Figure 2: North Stradbroke Island (Minjerrabah) Drought Response Overview

MLWR = Medium level water restrictions. HLWR = High level water restrictions

Table 1: North Stradbroke Island (Minjerribah) 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	Redland City Council	Seqwater	Redland City Council	Seqwater	
Normal operations	Ground water (GW) observation bore #14400016A measures above 15 mAHD	Normal demand		N/A	Monthly	Installation of a tanker filling station is planned (likely to be FY2022-23 or later).
1 - Drought readiness	GW observation bore #14400016A measures 15 mAHD	Normal demand			Weekly	
2 – Drought response	GW observation bore #14400016A measures 10 mAHD OR GW observation bore #142634 measures 4 mAHD	Communications encouraging voluntary conservation	Potential inter-community carting between North Stradbroke Island communities		Daily	
3 – Moderate to severe drought	GW observation bore #14400016A measures 4 mAHD OR GW observation bore #142634 measures 2 mAHD	Medium to High Level Water Restrictions – encourage 140-120 L/p/d	Increased inter-community carting between North Stradbroke Island communities		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.