

Shire of Dalwallinu

Non-potable strategic community water supplies plan

Department of Water and Environmental Regulation Prime House, 8 Davidson Terrace Joondalup Western Australia 6027 Locked Bag 10 Joondalup DC WA 6919

Phone: 08 6364 7000 Fax: 08 6364 7001

National Relay Service 13 36 77

wa.gov.au/dwer

© Government of Western Australia

December 2024

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. Apart from any use as permitted under the *Copyright Act 1968*, all other rights are reserved. Requests and inquiries concerning reproduction and rights should be addressed to the Department of Water and Environmental Regulation.

Acknowledgements

Throughout the development of this Strategic Community Water Supply plan, several people from the Rural Water Planning section in the Department of Water and Environment Regulation (the department) were involved:

Sherrie Anderson, Rosie Bell, Tracy Calvert, Mell Culhane, Elizabeth Tanner Sandy Turton-Parkinson and Renae Thorpe

The department would also like to thank the Shire of Dalwallinu and the Water Corporation for their advice, support and assistance during the preparation of this plan.

For more information about this plan, contact Rural Water Planning, 1800 780 300.

Cover photograph: Goodlands Tank, Shire of Dalwallinu

Disclaimer

This document has been published by the Department of Water and Environmental Regulation. Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the Department of Water and Environmental Regulation and its employees are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be in respect of any representation, statement, opinion or advice referred to herein. Professional advice should be obtained before applying the information contained in this document to particular circumstances.

This publication is available at our website <u>wa.gov.au/dwer</u> or for those with special needs it can be made available in alternative formats such as audio, large print, or Braille.

Contents

Summary	1
Introduction	2
Strategic community water supplies and agricultural area dams	3
Shire of Dalwallinu map	4
Strategic community water supply access	5
Overview of different fill points	5
Swipe card systems	
Farm bots	5
Shire of Dalwallinu SCWS sites	6
Description of community water supplies	7
Goodland's Tank	
Goodland's Tank site description	8
Description of community water supplies	9
Kalannie	
Kalannie site description	10
Description of community water supplies	11
Buntine	
Buntine description	12
Description of community water supplies	13
Wubin	
Wubin site description	14
Glossary	15

Summary

Water supply planning is essential in rural areas and requires collaboration, involvement and participation from all stakeholders, including farmland communities, local government authorities (LGAs) and State Government agencies as part of an integrated approach to sustainable water supply for the future.

This plan provides information for the Shire and farmers on the location of strategic community water supplies (SCWS) and how to access non-potable water for emergency stock watering and firefighting purposes, including the facilities available at each site.

Introduction

Over the past 40 years, recurrent water supply problems have affected the dryland agricultural region. Emerging climate changes are likely to increase the occurrences of low rainfall years, resulting in water shortages and restrictions in rural communities.

As farmers face long-term water security challenges, they are encouraged to proactively develop and maintain on-farm water infrastructure to better prepare for dry periods.

Rural water planning recognises the importance of preparing for these events to increase the opportunities for delivering an assured water supply to farmland communities in the dryland agricultural areas of Western Australia (WA).

SCWS planning is one of the key roles of the Department of Water and Environmental Regulation's (the department's) rural water program. The aim is to ensure dryland agricultural areas are safeguarded, wherever possible, against serious water deficiencies.

While landholder self-sufficiency must remain the primary objective, the rural water program recognises the importance of emergency off-farm water supplies to farming communities. It also builds on the SCWS network across the dryland agricultural area through the community water supplies partnership (CWSP) program and the agricultural areas (AA) dam works program.

Both programs establish and improve non-potable water supplies to ensure that water is available for emergency livestock watering, firefighting and other farm needs. The CWSP program aims to reduce reliance on potable scheme water supplies for non-potable needs, and to increase water availability for public amenities such as sportsgrounds.

This SCWS plan has been compiled for the Shire of Dalwallinu to provide a clear description of each of the SCWS in the Shire available for firefighting purposes, and to farmers and farming communities in times of emergency.

Strategic community water supplies and agricultural area dams

A network of SCWS has been developed across WA's dryland agricultural areas to provide an important source of non-potable water for farming and firefighting needs.

These supplies are for emergency use in times when low rainfall causes on-farm supplies to become depleted, and farmers need to travel to access water for livestock and essential farming purposes.

Vesting of the strategic dams and bores in each LGA varies, with some sites owned by government agencies (including the department), Water Corporation, the LGA itself, or by private entities where an agreement has been made to allow access.

It is important that these water supplies are carefully managed to ensure water is available during times of emergency.

The department keeps in regular contact with rural communities to monitor the condition of SCWS and identify and address any maintenance issues.

Each year, the department's rural water program undertakes works to maintain and upgrade sites vested with it, and sites in priority areas vulnerable to dry conditions.

AA dams have been developed since the early 1990s to provide water and support the growth of farming in the dryland agricultural area. There are about 480 of the original 681 AA dams that range from high value to no value in terms of their condition and serviceability.

SCWS is a subset of the AA dams that are reliable, in good to excellent repair and retain a high value. The department uses LGA maps to determine which sites are worth upgrading and to identify priority areas to develop new SCWS.

The following map (Figure 1) shows the location of the strategic community supplies and AA dams in the Shire of Dalwallinu, with symbols indicating the capacity, vesting and values of each site.

Shire of Dalwallinu map

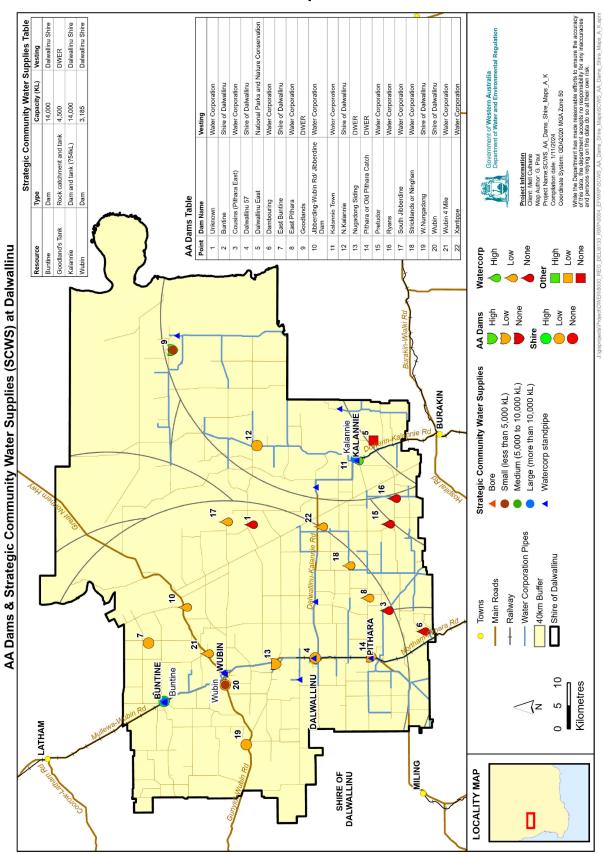


Figure 1 Location of SCWS (at 1 November 2024)

Strategic community water supply access

Overview of different fill points

Each SCWS will have a fill point to allow access to water supply for agricultural purposes. Each fill point will have a camlock fitting. Standard sizes of camlocks include 50 mm (2 inch), an 80 mm (3 inch) fitting and, in some cases, a 100 mm (4 inch) connection is fitted for firefighting purposes. These camlock fittings will be available where there is a tank, standpipe, swipe card system or bore fill point. When accessing water directly from dams without tank storage, you will need to bring your own pump to extract water.

Swipe card systems

Swipe card systems are metered fill points that require a swipe card or fob from your Shire to access the water supply. Contact your local Shire office to obtain a swipe card to access these water supplies.

During emergencies such as bushfires, the Shire can switch the swipe card system to allow access without a swipe card. All local fire appliances have swipe card access. The emergency access contact is Marc Bennett on 0407 253 797.

Farm bots

Some tanks are fitted with farm bots, which regularly record the water level and feed this information into a website. You can access this website at app.farmbot.com.au (Login ID: public.access Password: access1) to view water tank levels for tanks fitted with farm bots.

Below are examples of different fill points you may come across in the LGA.



Tank standard camlock fitting



Farm bot positioned on top of tank



Swipe card standpipe system



Tank, electric swipe card and pump for bore

Shire of Dalwallinu SCWS sites

Site name	Location
Goodland's Tank	~2 km down Leeson Road off Denton Road ~1.5 km from Leeson Road to tank
Kalannie	Melbin Drive off Sanderson Terrace
Buntine	Mullewa – Wubin Road ~540 m south of Buntine East Road
Wubin	Gunyidi – Wubin Rd ~1.73 km west from Mullewa – Wubin Rd

Description of community water supplies

Goodland's Tank





Aerial view of Goodland's Tank

Location map



Goodland's Tank and gauge



Standpipe

Goodland's Tank site description

Vesting	Department of Water and Environmental Regulation
Purpose	Strategic community water supply for agricultural purposes including emergency stock and fire water
Associated reserve	32060
Catchment type	Rock catchment
Catchment area (ha)	29.6 ha

Location and coordinates

Location: ~2 km down Leeson Road off Denton Road; ~1.5 km from Leeson Road to tank

Latitude	-30.002448
Longitude	117.362837
Eastings	534994.047836
Northings	6680887.982960

Structure type	Rock catchment and tank
Tank storage	4,500 kL
Standpipe Y/N	Yes, on road edge
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes, at end of road
Notes	Evaporation cover planned for Goodland's Tank roof replacement
Emergency access contact	Marc Bennett 0407 253 797

Description of community water supplies

Kalannie





Aerial view of Kalannie

Location map



Kalannie Dam (2001)



Kalannie Dam full (September 2022)

Kalannie site description

Vesting	Shire of Dalwallinu
Purpose	Strategic community water supply for agricultural purposes including emergency stock and fire water
Associated reserve	21573
Catchment type	CBH roof catchment
Catchment area (ha)	3

Location and coordinates

Location: Melbin Drive off Sanderson Terrace	
Latitude	-30.359825
Longitude	117.119233
Eastings	511458.037992
Northings	6641336.003340

Structure type	Dam and tank
Dam capacity	14,000 kL
Tank storage	750,000 L
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Town water catchment
Emergency access contact	Marc Bennett 0407 253 797
	1

Description of community water supplies

Buntine



el Rd

Buntine East Rd

Buntine East Rd

Boucher Rd

Aerial view of Buntine



Location map



Buntine dam

Buntine bitumen catchment



Buntine standpipe

Buntine description

Vesting	Shire of Dalwallinu
Purpose	Strategic community water supply for agricultural purposes including emergency stock and fire water
Associated reserve	15467
Catchment type	Bitumen
Catchment area (ha)	2.4 ha

Location and coordinates

Location: Mullewa – Wubin Road ~540 m south of Buntine East Road		
Latitude	-29.9855	
Longitude	116.5724	
Eastings	458756.66115	
Northings	6682738.74953	

Structure type	Dam
Dam capacity	14,000 kL
Tank storage	No
Standpipe Y/N	Yes
Pump Y/N	N
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Catchment west of dam
Emergency access contact	Marc Bennett 0407 253 797
	<u>'</u>

Description of community water supplies Wubin



Aerial view of Wubin

Location map



Wubin dam



Generator



Camlock outlet

Wubin site description

Vesting	Shire of Dalwallinu
Purpose	Strategic community water supply for agricultural purposes including emergency stock and fire water
Associated reserve	18245
Catchment type	Earth
Catchment area (ha)	Unknown

Location and coordinates

Location: Gunyidi – Wubin Rd ~ 1.73 km west from Mullewa – Wubin Rd		
Latitude	-30.1042	
Longitude	116.6095	
Eastings	462348.19	
Northings	6669546.65	

Structure type	Dam
Dam capacity	~3,185 kL
Tank storage	No
Standpipe Y/N	Yes
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Catchment west of dam. Access to standpipe via Shire.
Emergency access contact	Marc Bennett 0407 253 797
	-

Glossary

Camlock A male hose coupling fixed for connection of a water hose. Camlocks

can be attached to fill points such as tanks, or standpipes to allow access to water supply. Camlock sizes vary from site to site and generally include 50 mm (2 inch) and 80 mm (3 inch) as a standard. At

some sites, a 100 mm (4 inch) camlock has been included for

firefighting purposes.

Catchment types

Earth – land cleared, cambered, and compacted to provide a

catchment area for surface water.

Bitumen – catchment lined with bitumen to allow capture of surface

water.

Rock catchment – rock that slopes, has containment walls to capture surface water to a storage source (e.g. a tank or a concrete dam).

Bore – a drilled casing that accesses ground water to provide a water

supply.

CBH – water is captured from a CBH grain silo storage facility and

stored in a dam or tank.

Farm bot A device fitted to some tanks to regularly record the water level and

feed this information into a website. You can access this website at app.farmbot.com.au (Login ID: public.access Password: access1) to

see water tank levels for tanks fitted with farm bots.

Fill point Location where a water supply can be accessed from using camlock

fittings either via standpipe, swipe card system, tank or bore.

Non-potable Water not suitable for human consumption.

Solar pump A pump powered through solar energy that pumps water from one

location to another (e.g. from dam to dam or from dam to tank).

Staff gauges A marker measuring tool positioned at surveyed depths in a dam to

indicate water levels.

Standpipe A pipe overhead, on a plinth or raised off the ground to provide a fill

point for water supply.

Swipe card A metered fill point requiring a card to be swiped to start pumping

system. Contact the LGA for further information.

Vesting Person or governing agency with responsibility for managing land.

Department of Water and Environmental Regulation Prime House 8 Davidson Terrace Joondalup Western Australia 6027

Locked Bag 10, Joondalup DC WA 6919

Phone: 08 6364 7000 Fax: 08 6364 7001 National Relay Service 13 36 77 wa.gov.au/dwer