



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



Shire of Kondinin

Non-potable strategic community
water supplies plan

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Rural Water Planning, 1800 780 300

Cover photograph: King Rocks Dam, Shire of Kondinin

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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 what facilities are 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.

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

Rural water planning recognises the importance to prepare for these events and increase the opportunities to deliver an assured water supply to farmland communities in the dryland agriculture 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 planning 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 planning 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 with an aim to ensure water is available for emergency livestock watering and firefighting. The CWSP program also 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 Kondinin 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.

Vesting of the strategic dams, tanks, bores and other assets 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 are 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 Kondinin, with symbols indicating the capacity, vesting and values of each site.

Shire of Kondinin map

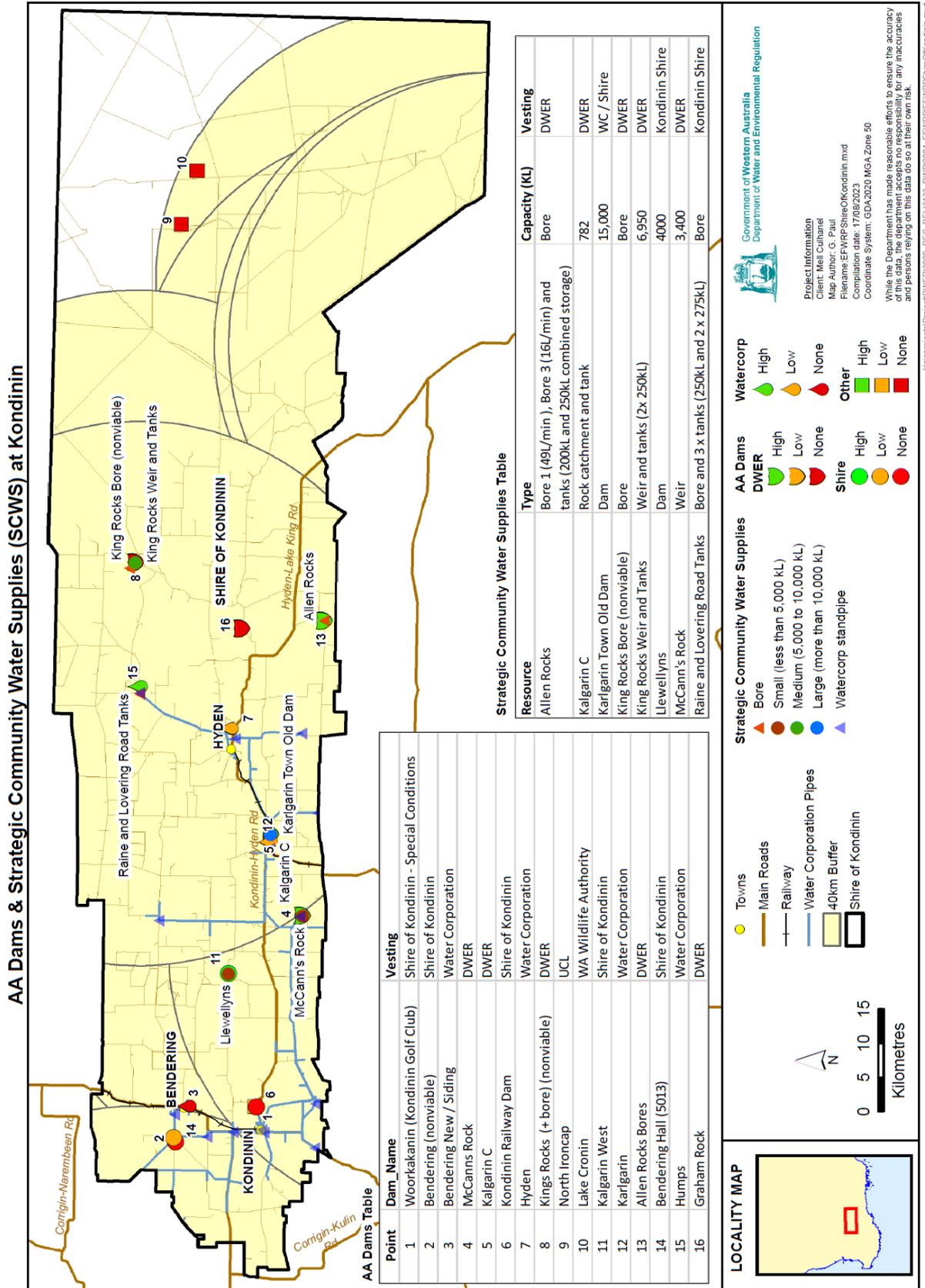


Figure 1 – Location of strategic community water supplies (at 17 August 2023)

Strategic community water supply access

Overview of different fill points

Each strategic community water supply 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) and 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 a 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 the Works Manager on 0427 981 812.

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 your shire.



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 Kondinin SCWS sites

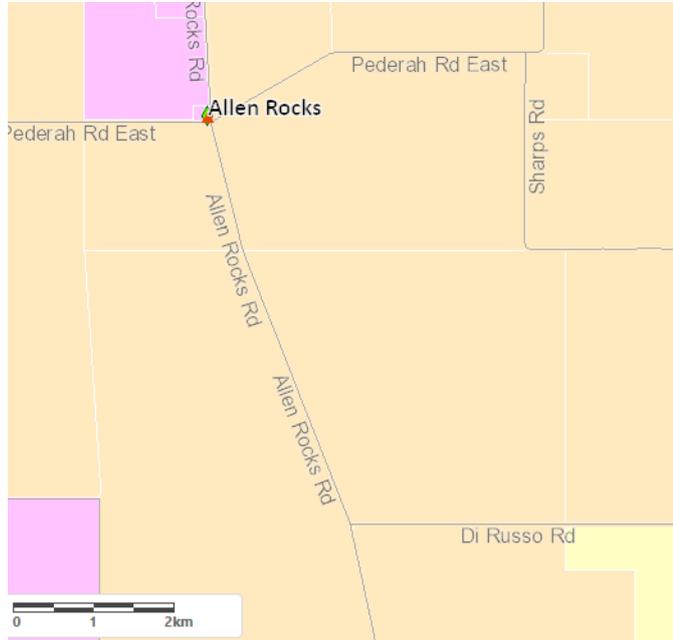
Site name	Location
Allen Rocks	Corner of Pederah Road East and Allen Rocks Road
Karlgarin C	Approx 1.7 km east of Melba Street along Karlgarin Road East <i>~1.1 km south from Karlgarin Road East</i>
Karlgarin Town Old Dam	Karlgarin Road East <i>~300 m from Melba Street</i>
King Rocks weir and tanks	King Rocks Road East Hyden <i>~1.5 km from Douthie Road</i>
Llewellyn's / Karlgarin West	Notting-Karlgarin Road <i>~2 km east from Government Dam Road</i>
McCann's Rock	McCann Rock Road <i>~1.7 km Murray Road</i>
Raine and Lovering Road tanks	Corner of Raine and Lovering roads

Description of community water supplies

Allen Rocks



Aerial view of Allen Rocks



Location map



Swipe card



Couplings



Swipe card instructions



Allen Rocks standpipe and tanks

Allen Rocks site description

Vesting	Department of Water and Environmental Regulation
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	22460
AA dam #	5012
Catchment type	2 x bores
Catchment area (ha)	36 ha

Location and coordinates

Location: Corner of Pederah Road East and Allen Rocks Road

Latitude	-32.567687000
Longitude	119.066462000
Eastings	693994.010260
Northings	6394754.013540

Water supply and access

Structure type	Bore 1 & Bore 3, 5 x tanks. 3 x standpipes, swipe card
Capacity	Bore 1 49 L/min, Bore 3 16 L/min
Tank storage	14 kL, 50 kL, 100 kL, 220 kL and 250 kL
Standpipe Y/N	Yes, water drawn directly from overhead tank
Swipe card Y/N	Yes
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Bore 1 & 3 fill tanks for water supply.
Emergency access contact	Works Manager 0427 981 812

Description of community water supplies

Karlgarin C



Aerial view of Karlgarin C



Location map



Tank (February 2011)



Tank (November 2022)



Standpipe camlock couplings



Karlgarin C catchment (November 2022)

Karlgarin C site description

Vesting	Department of Water and Environmental Regulation
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	19981
AA dam #	421
Catchment type	Rock
Catchment area (ha)	22 ha

Location and coordinates

Location: ~1.1 km from Karlgarin Road East

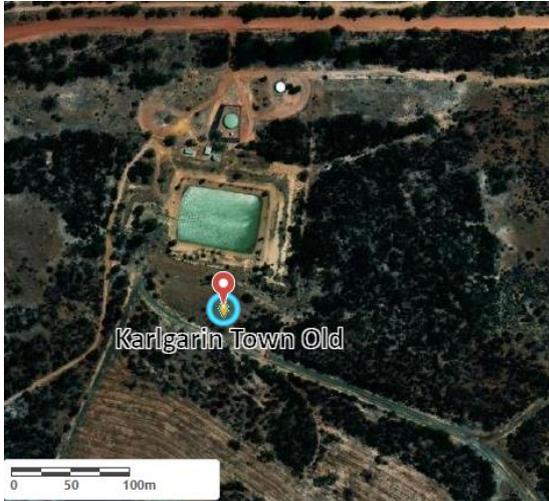
Latitude	-32.502510891
Longitude	118.730744489
Eastings	662590.712705
Northings	6402542.765950

Water supply and access

Structure type	Concrete tank
Capacity	782 cubic metres
Tank storage	Yes
Standpipe Y/N	Yes
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	Works Manager 0427 981 812

Description of community water supplies

Karlgarin Town Old Dam



Aerial view of Karlgarin Town Old Dam *Location map*



Karlgarin Town Old Dam (November 2022)



Swipe card system and tank

Karlgarin Town Old Dam site description

Vesting	Water Corporation (Shire of Kondinin agreement in place for use)
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	29369
AA dam #	583
Catchment type	Earth
Catchment area (ha)	Approx. 34 ha, inc. approx. 4.26 ha bitumen

Location and coordinates

Location: Karlgarin Road East ~300m from Melba Street

Latitude	-32.502336
Longitude	118.730829
Eastings	662598.967769
Northings	6402562.027690

Water supply and access

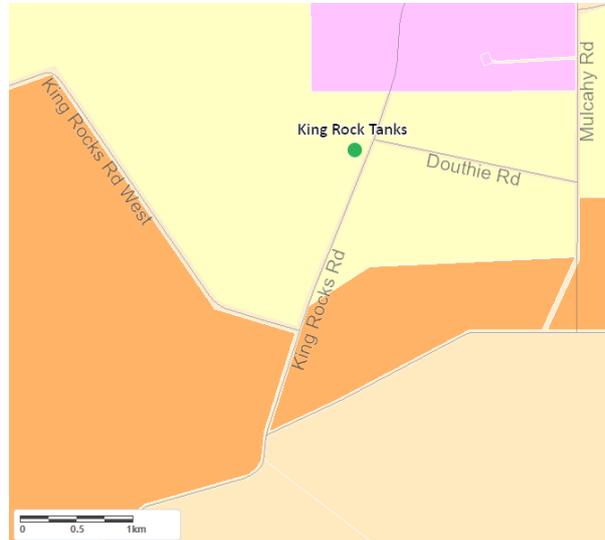
Structure type	Dam and tank
Tank capacity	150 kL
Dam capacity	15,000 kL
Swipe card system Y/N	Yes (contact shire for registered use)
Coupling sizes	80 mm (3 inch) outlet (on swipe card system)
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Once dam level is 2 m, the water supply to the tank will be closed off as per Water Corporation agreement.
Emergency access contacts	Works Manager 0427 981 812

Description of community water supplies

King Rocks weir and tanks



Aerial view King Rocks weir and tanks



Location map



King Rocks weir (November 2022)



King Rocks catchment



Swipe card system



King Rocks tanks

King Rocks weir and tanks site description

Vesting	Department of Water and Environmental Regulation
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	8390
AA dam #	445
Catchment type	Rock with wall
Catchment area (ha)	~135 ha

Location and coordinates

Location: King Rocks Road East Hyden ~1.5 km from Douthie Road

Latitude	-32.443835299
Longitude	118.895394888
Eastings	678176.297759
Northings	6408785.386150

Water supply and access

Structure type	Concrete weir on rock
Dam capacity	6,950 cubic metres
Tank storage	Yes, 5 x 250 kL
Swipe card system Y/N	Yes (contact shire for registered use)
Standpipe Y/N	Yes
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	Works Manager 0427 981 812

Description of community water supplies

Llewellyn's / Karlgarin West



Aerial view of Llewellyn's / Karlgarin West



Location map



Llewellyn's / Karlgarin West covered dam (2022)



Llewellyn's / Karlgarin West uncovered part



Llewellyn's / Karlgarin West drain

Llewellyn's / Karlgarin West site description

Vesting	Shire of Kondinin
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	22474
Catchment type	Rock
Catchment area (ha)	6 ha rock

Location and coordinates

Location: Notting-Karlgarin Road ~2km east from Government Dam Road

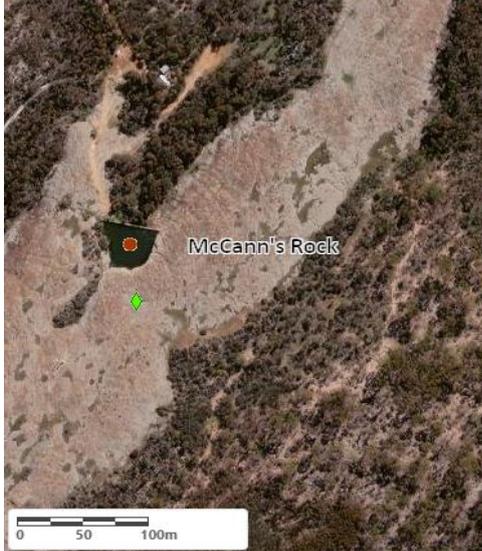
Latitude	-32.449528471
Longitude	118.512066846
Eastings	642128.635293
Northings	6408729.280670

Water supply and access

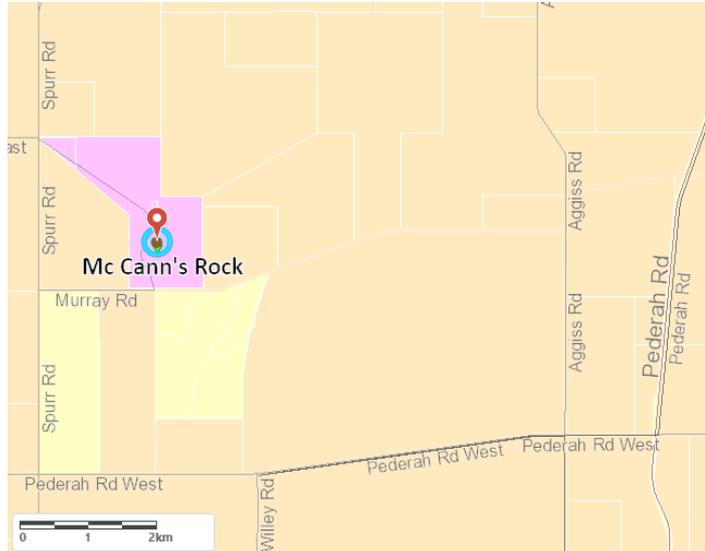
Structure type	Dam - concrete floor and walls enclosed with timber and iron roofing
Capacity	4,000 cubic metres
Tank storage	No
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	Works Manager 0427 981 812

Description of community water supplies

McCann's Rock



Aerial view of McCann's Rock



Location map



McCann's Rock dam and weir (Nov 2022)



McCann's catchment (Nov 2022)



Swipe card system and couplings



Asbestos signage

McCann's Rock site description

Vesting	Department of Water and Environmental Regulation
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	17663
AA dam #	420
Catchment type	Granite rock
Catchment area (ha)	~12.7 ha

Location and coordinates

Location: McCann Rock Road ~1.7 km Murray Road

Latitude	-32.545901921
Longitude	118.604158875
Eastings	650625.113481
Northings	6397918.033090

Water supply and access

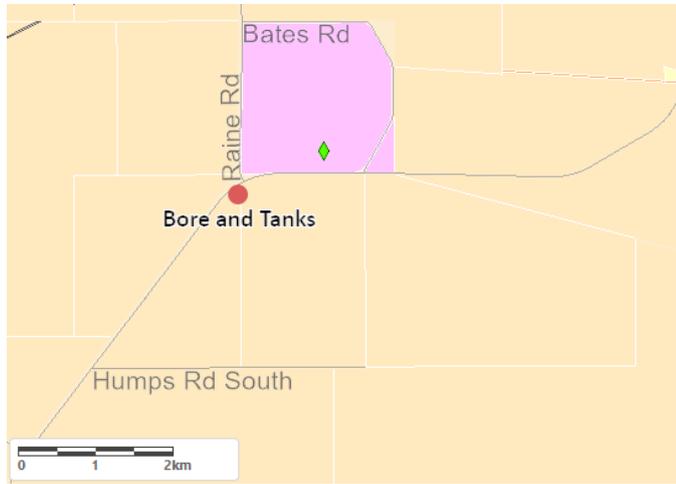
Structure type	Weir and concrete dam
Capacity	3,400 kL
Tank storage	N/A
Standpipe Y/N	No (tap couplings)
Swipe card system Y/N	Yes
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	Works Manager 0427 981 812

Description of community water supplies

Raine and Lovering Road tanks



Aerial view of bore and tanks



Location map



Raine and Lovering Road setup (3 x tanks)



Swipe card system



Bore opposite tanks



2 x new tanks installed in 2023

Raine and Lovering Road tanks site description

Vesting	Shire of Kondinin
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Private land
Catchment type	Bore
Catchment area (ha)	N/A

Location and coordinates

Location: Corner of Raine and Lovering roads

Latitude	-32.32600
Longitude	118.94695
Eastings	683261.05273
Northings	6421763.29334

Water supply and access

Structure type	Bore and tanks
Capacity	0.78 L/sec
Tank storage	250 kL & 2 x 275 kL tanks
Swipe card Y/N	Yes (contact shire for registered use)
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comment	Please note the overhead standpipe is not linked to tanks and is not in working order.
Emergency access contacts	Works Manager 0427 981 812

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), 80 mm (3 inch) as a standard. At some sites a 100 mm (4 inch) camlock has been included for firefighting purposes.
Catchment types	<p>Earth – land cleared, cambered, and compacted to provide a catchment area for surface water.</p> <p>Bitumen – catchment lined with bitumen to allow capture of surface water.</p> <p>Rock catchment – rock that slopes, has containment walls to capture surface water to a storage source (e.g. a tank or a concrete dam).</p> <p>Bore – a drilled casing that accesses ground water to provide a water supply.</p> <p>CBH – water is captured from CBH grain silo storage facility and stored in a dam or tank.</p>
Fill point	Location where a water supply can be accessed from using camlock fittings either via standpipe, swipe card system, tank or bore.
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.
Non-potable	Water not suitable for human consumption.
Solar pump	A pump powered through solar 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.

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