



Shire of West Arthur

non-potable strategic community water supplies plan

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

Cover photograph: Kylie Dam by Kerry Chia

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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). It advises 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).

Strategic community water supply (SCWS) planning is one of the key roles of the Department of Water and Environmental Regulation's rural water program. The aim is to safeguard dryland agricultural areas 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 plan has been compiled for the Shire of West Arthur 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 West Arthur, with symbols indicating the capacity, vesting and values of each site.

Shire of West Arthur map

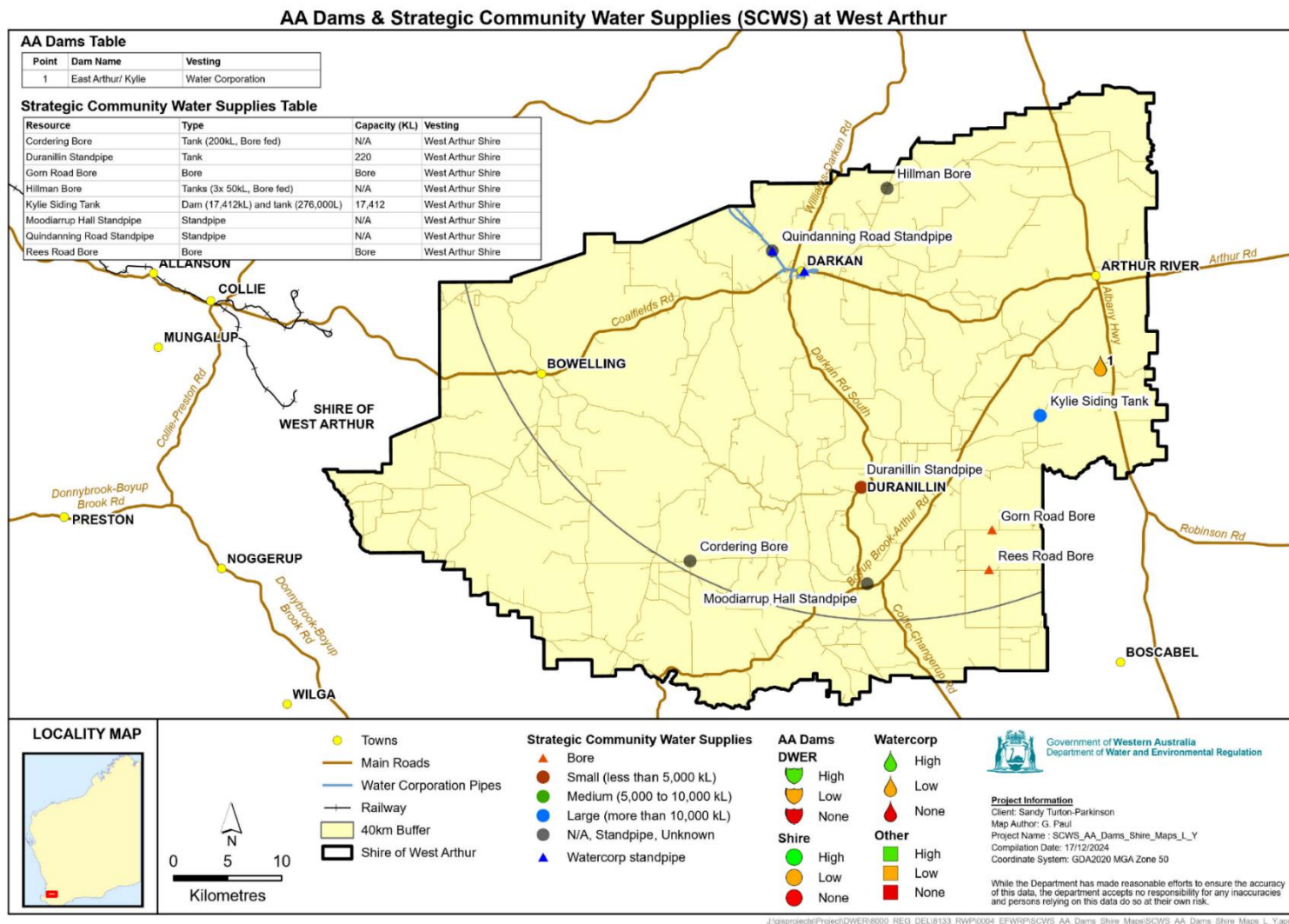


Figure 1- Location of Strategic Community Water Supplies at 17 December 2024

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), 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. The emergency access contact is the works manager on 0427 362 214.

Farm bots

Some tanks across the state 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 check tank locations and 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 West Arthur SCWS sites

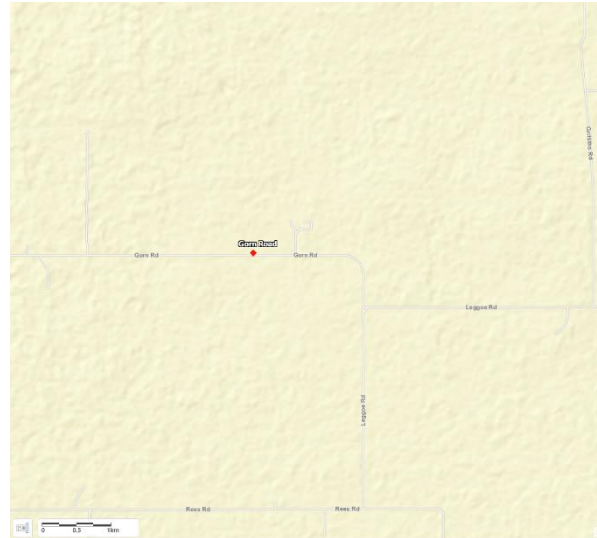
Site name	Location
Gorn Road bore	Gorn Road ~ 5.6 km east of the Gorn Road-Bokal South Road intersection (northern side of the road)
Duranillin standpipe	Duranillin townsite, Ewing Street, Duranillin
Rees Road bore	Rees Road ~ 1.8 km east of the Ballock Road-Rees Road intersection (northern side of road)
Kylie Siding tank	Bokal East Arthur Road ~ 0.9 km north of Morrell Road located on the Kylie Siding access track
Quindanning Road standpipe	Quindanning-Darkan Road ~ 2 km north of Coalfields Highway/Quindanning-Darkan Road intersection
Moodiarrup Hall standpipe (saline water from river, firefighting purposes only)	Boyup Brook-Arthur Road ~ 0.82 km east of Darkan Road South via access track to the north towards Arthur River
Cordering tank	Moodiarrup Road West ~ 8 km west of Capercup Road South
Hillman tanks	Hillman-Dardadine Road ~ 1.4 km North of Shields Road

Description of community water supplies

Gorn Road bore



Aerial location of tank



Location on Gorn Road



Bore location along Gorn Road



Close up of bore



Tank at Gorn Road

Gorn Road bore site description

Vesting	Tank located on private property, bore and pump on road reserve
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	NA
Catchment type	Palaeochannel
Catchment area (ha)	NA

Location and coordinates

Location: Gorn Road ~ 5.6km east of the Gorn Road-Bokal South Road intersection (northern side of the road)

Latitude	-33.551781
Longitude	116.965109
Eastings	496761.07
Northings	6287539.30

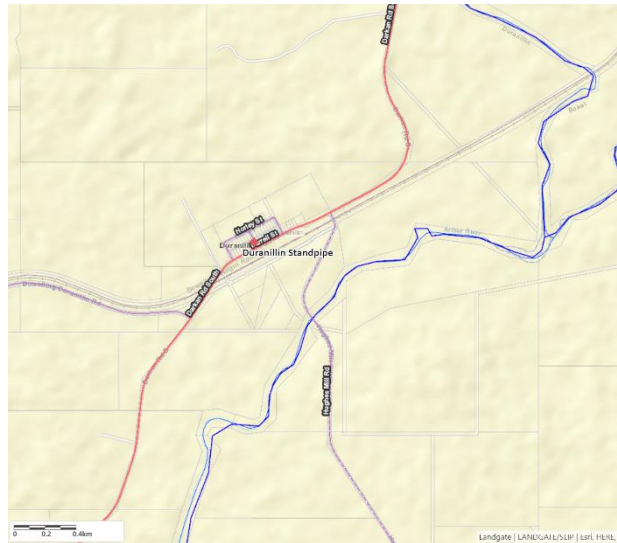
Water supply and access

Structure type	Bore and tank
Capacity	400kL per day
Tank storage	90kL
Standpipe Y/N	No
Swipe card Y/N	No
Pump Y/N	Pump usually installed in November of each year or supplied on request from the Shire.
Heavy vehicle access	Yes
Turnaround area	No (circular route on roads available)
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

Duranillin standpipe



Aerial location



Standpipe location



Standpipe



Lock to access standpipe



Pump panel



Signage



Tanks and pump house

Duranillin standpipe site description

Vesting	Shire of West Arthur
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Road reserve
Catchment type	Water delivered to the tanks by the Shire
Catchment area (ha)	N/A

Location and coordinates

Location: Duranillin Townsite, *Ewing Street, Duranillin*

Latitude	-33.516388
Longitude	116.801309
Eastings	481547.98
Northings	6291446.19

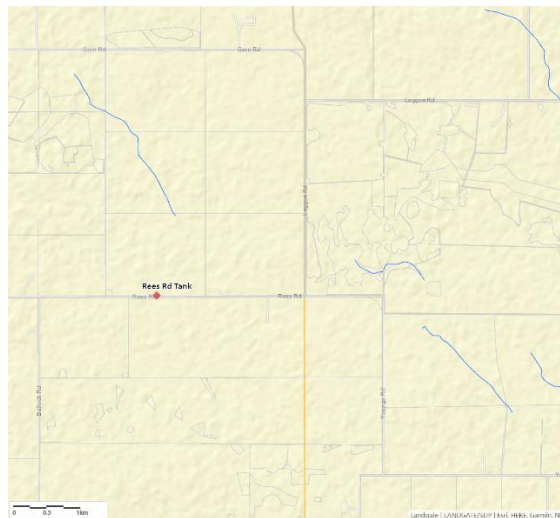
Water supply and access

Structure type	Standpipe, tank and pump house
Capacity	N/A
Tank storage	2 tanks – one 100kL tank and one 120kL tank
Standpipe Y/N	Yes
Swipecard Y/N	No (Key required to access standpipe. Key located in fire truck).
Pump Y/N	Yes
Heavy vehicle access	Yes
Turnaround area	No (can easily go around the block)
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

Rees Road bore



Aerial location



Tank location



Standpipe detail



Tank and standpipe



Rees Road bore



Rees Rd bore pump setup

Rees Road Bore site description

Vesting	Tank located on private property. Standpipe and bore located in Road Reserve (shire).
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	
Catchment type	Paleochannel
Catchment area (ha)	N/A

Location and coordinates

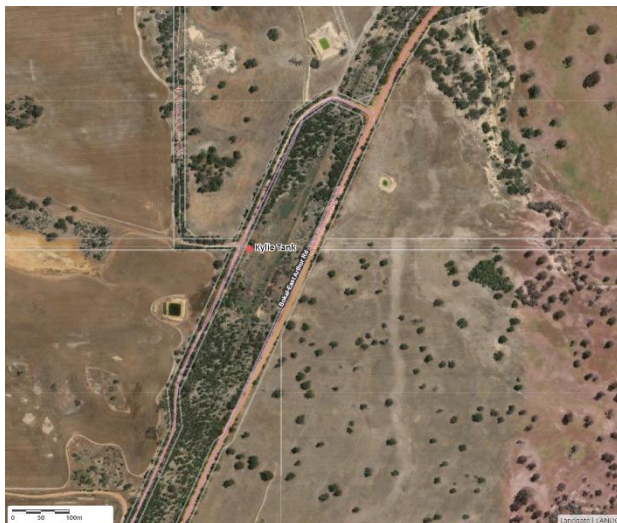
Location: Rees Road ~ 1.8km east of the Ballock Road-Rees Road intersection (northern side of road)

Latitude	-33.585295
Longitude	116.958360
Eastings	496136.05
Northings	6283823.36

Water supply and access

Structure type	Standpipe, bore and tank
Capacity	Unknown (estimate 200kL per day)
Tank storage	90kL
Standpipe Y/N	Yes
Swipe card Y/N	No
Pump Y/N	No pump on tank
Heavy vehicle access	Yes
Turnaround area	Yes (tight – but easy circular route on roads in the area)
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

Kylie Siding dam & tank



Kylie Tank aerial location



Kylie dam and tank location



Kylie tank facing north within railway reserve



Water tank at Kylie Siding



Kylie dam in Kylie reserve



Solar panel and pump



Pump panel and instruction manual.
Generator can be added for flow boost.



Water meter (green box)

Kylie Siding dam & tank site description

Vesting	Shire of West Arthur
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	NA
Catchment type	Earth
Catchment area (ha)	212 ha

Location and coordinates

Location: Bokal East Arthur Road ~ 0.9km north of Morrell Road located on the Kylie Siding access track.

Latitude	-33.456638
Longitude	116.979633
Eastings	498107.26
Northings	6298088.08

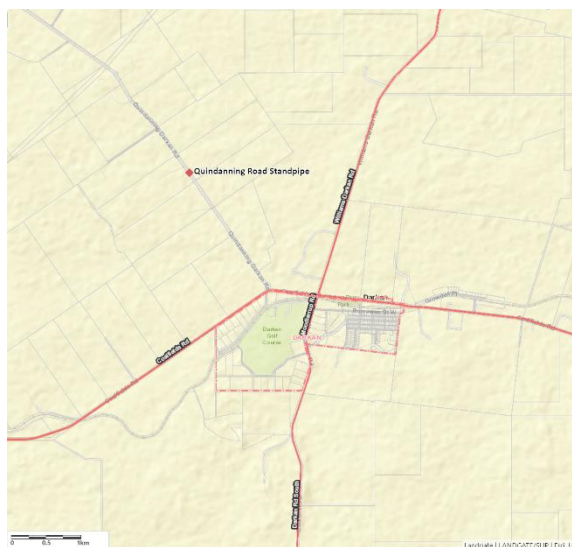
Water supply and access

Structure type	Tank with water meter (accessible to the public) and dam (not accessible to the public)
Dam capacity	17,412kL
Tank storage	276kL
Standpipe Y/N	Yes
Swipecard Y/N	No
Pump Y/N	Solar pump located at the dam to assist with tank refill. No pump located at the tank
Heavy vehicle access	Yes
Turnaround area	Drive through access
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

Quindanning Road standpipe



Quindanning standpipe aerial



Quindanning standpipe location



Quindanning standpipe



Quindanning standpipe couplings



Quindanning standpipe signage



Turn around/drive through area

Quindanning Road standpipe site description

Vesting	Shire of West Arthur
Purpose	Strategic community firefighting water only
Associated reserve	N/A
Catchment type	N/A
Catchment area (ha)	N/A

Location and coordinates

Location: Quindanning-Darkan Road ~ 2.0km north of Coalfields Highway/Quindanning-Darkan Road intersection.

Latitude	-33.31855
Longitude	116.71316
Eastings	473301.261
Northings	6313360.959

Water supply and access

Structure type	Standpipe only
Dam capacity	NA
Tank storage	NA
Standpipe Y/N	Yes
Swipe card Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017) Sara Ritchie (0428 361 307)

Moodiarrup Hall standpipe



Moodiarrup Hill aerial



Moodiarrup Hill location



Pump



Power switch



Standpipe



Truck drive through area



Tap on standpipe

Moodiarrup Hall standpipe site description

Vesting	Shire of West Arthur
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	R15800
Catchment type	River
Catchment area (ha)	N/A

Location and coordinates

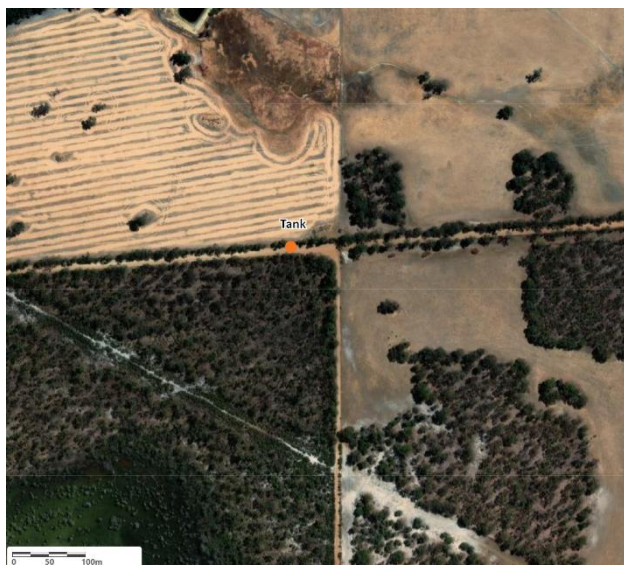
Location: Boyup Brook-Arthur Road ~ 0.82km east of Darkan Road South via access track to the north towards Arthur River

Latitude	-33.596639
Longitude	116.807067
Eastings	482099.27
Northings	6282549.75

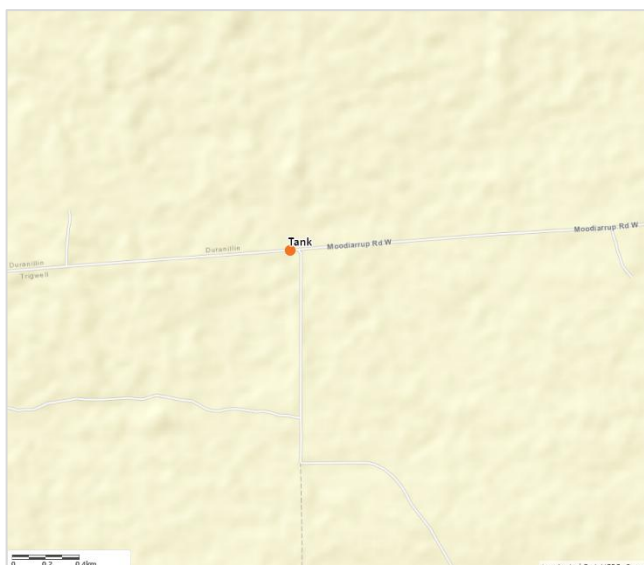
Water supply and access

Structure type	Standpipe and pump
Dam capacity	N/A
Tank storage	N/A
Standpipe Y/N	Yes
Swipecard Y/N	No
Pump Y/N	Electrical pump at the standpipe
Heavy vehicle access	Yes
Turnaround area	Drive through access
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

Cordering tank



Cordering aerial



Cordering location



Tank 2024



Solar pump 2024



Manifold (50 & 80mm camlock outlets)

Cordoring tank site description

Vesting	Shire of West Arthur
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Road reserve
Type	Bore; 3.0L/sec, 150 ms/m
Powerpack	For increased pumping overnight/when cloudy for emergency situations

Location and coordinates

Location: Moodiarrup Road West ~ 8km west of Capercup Road South

Latitude	-33.57709 S
Longitude	116.62973 E
Eastings	465637.755
Northings	6284672.426

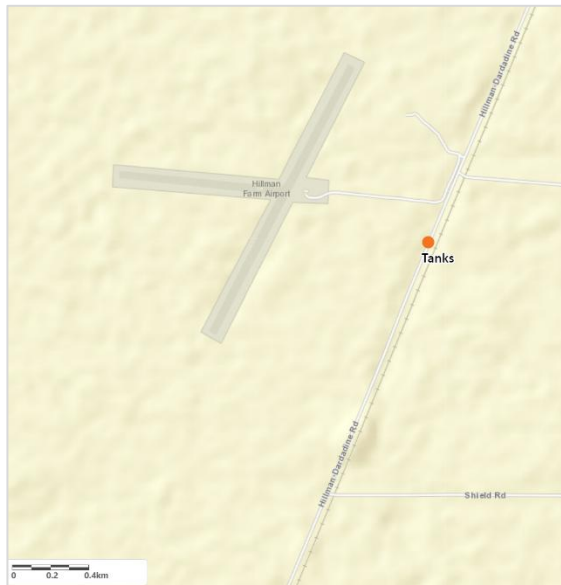
Water supply and access

Structure type	Bore & solar pump
Dam capacity	N/A
Tank storage	200kL
Standpipe Y/N	No - Manifold with 50mm & 80mm camlocks
Swipecard Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Drive-through access for smaller units
Supply information	Water meters require reading, solar panels require regular dusting, solar pump & panel approx. 560m east of tank.
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

Hillman tanks



Hillman aerial



Hillman location



Tanks 2024



Manifold (50 & 80mm camlock outlets)



Solar pump 2024

Hillman tanks site description

Vesting	Shire of West Arthur
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Road reserve
Type	Bore; 1.4L/sec, 420ms/m
Powerpack	For increased pumping overnight/when cloudy for emergency situations

Location and coordinates

Location: Hillman-Dardadine Road ~ 1.4km North of Shields Road

Latitude	-33.26643 S
Longitude	116.82763 E
Eastings	483946.473
Northings	6319162.723

Water supply and access

Structure type	Bore & solar pump
Dam capacity	N/A
Tank storage	3x 50kL
Standpipe Y/N	No - Manifold with 50mm & 80mm camlocks
Swipecard Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Drive-through access for smaller units
Supply information	Water meters require reading, solar panels require regular dusting, solar pump & panel approx. 600m north of tanks
Emergency access contact	Shire works manager (0427 362 214) Shire CEO (0473 072 017)

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>
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 via 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.



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