



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



Shire of Gnowangerup

Non-potable strategic community
water supplies plan

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For more information about this plan, contact:

Rural Water Planning, 1800 780 300

Cover photograph: Highdenup Road Tanks, Shire of Gnowangerup

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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 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 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 with an aim to ensure water is available for emergency livestock watering, firefighting and for other farm needs. 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 Gnowangerup 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 AA 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 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.

Figure 1 shows the location of the strategic community supplies and AA Dams in the Shire of Gnowangerup, with symbols indicating the capacity, vesting and values of each site.

Shire of Gnowangerup map

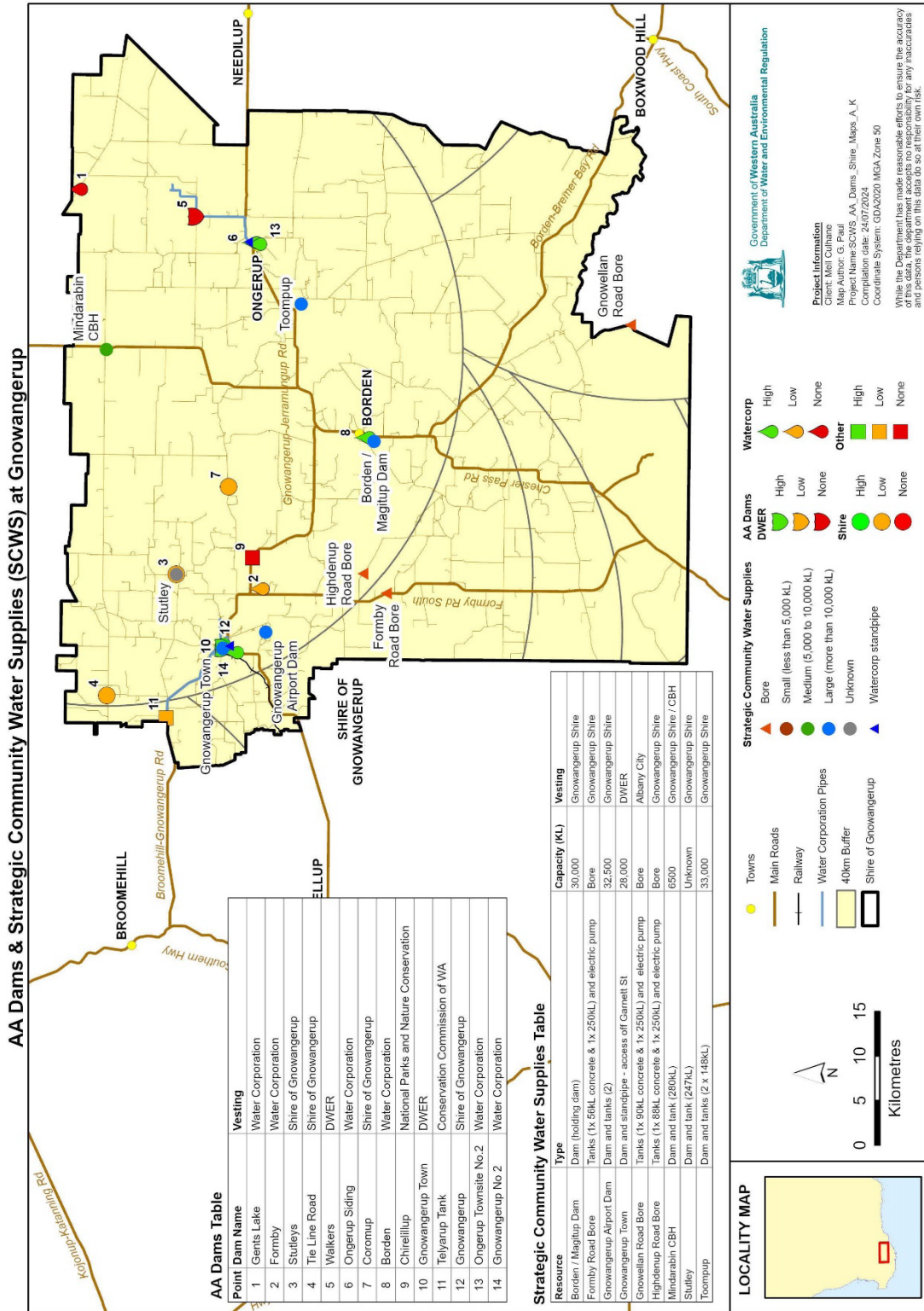


Figure 1 Location of SCWS (at 24 July 2024)

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 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 LGA to access the water supply. Contact your local LGA 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. Select fire trucks have swipe card access, some use other water connection points when required. The emergency contact for water access issues is the Executive Manager Infrastructure and Assets 0439 791 925.

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 LGA.



Tank standard camlock fitting



Farm bot positioned on top of tank



Swipe card standpipe system



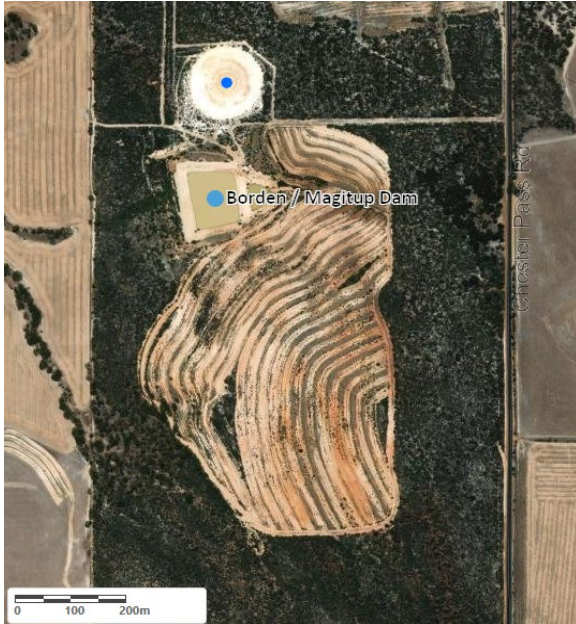
Tank, electric swipe card

Shire of Gnowangerup SCWS sites

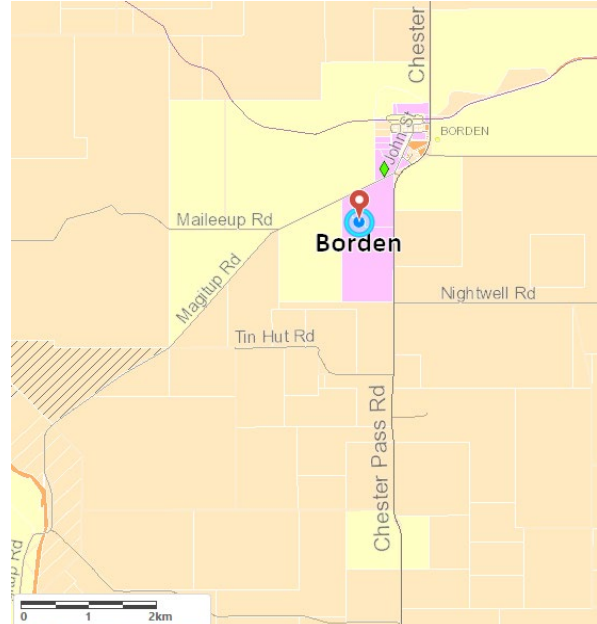
Site name	Location
Borden/Magitup dam	Chester Pass Road <i>~200 m south of Magitup Road, Borden</i>
Formby Road bore	Formby Road <i>~1.5 km south-east from Highdenup Road</i>
Gnowellen Road bore (City of Albany)	Gnowellen Road <i>~2.5 km south of Kuch Road</i>
Highdenup Road bore	Highdenup Road <i>~3.8 km east from Formby Road</i>
Toompup	Toompup Road South <i>~1.2 km East Gnowangerup – Jerramungup Road</i>
Gnowangerup Airport Dam	Airport Road access <i>~600 m east Strathaven Road</i>
Gnowangerup (Town Dam)	Garnett Road <i>~300 m west from Corbett Street</i>
Stutley Dam tank	Moorse Dam Road <i>~0.36 km north from Jackitup Road</i>
Mindarabin CBH tank	Tie Line Road <i>~700 m west from Chester Pass Road</i>

Description of community water supplies

Borden/Magitup Dam



Aerial view of Borden/Magitup Dam



Location map



Collection dam (March 2020)

Borden/Magitup Dam site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	53493
Catchment type	Earth
Catchment area (ha)	~26.6 ha

Location and coordinates

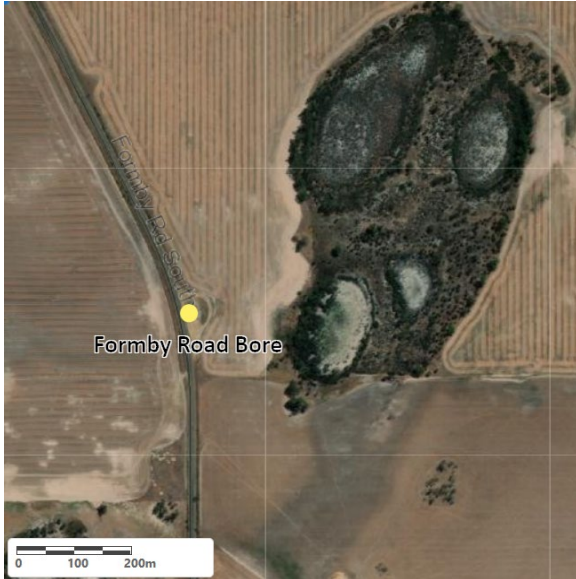
Location: Chester Pass Road ~200 m south of Magitup Road, Borden

Latitude	-34.08660
Longitude	118.25314
Eastings	615611.07603
Northings	6227533.11277

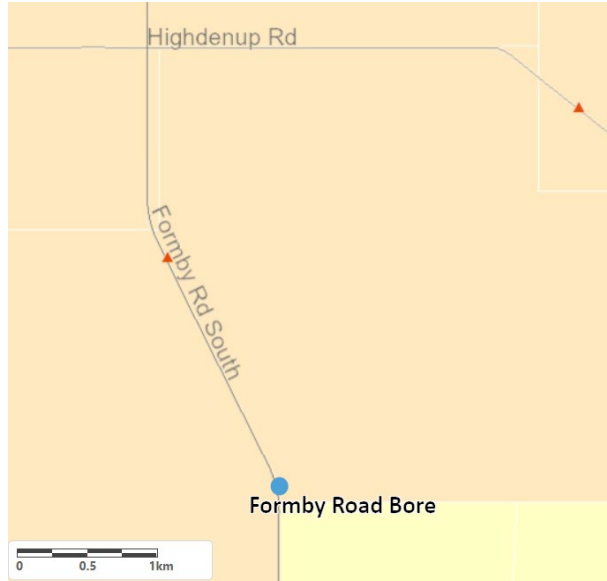
Water supply and access

Structure type	Dam (rectangle dam)
Capacity	30,000 kL
Tank storage	No
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	No
Turnaround area	Yes, light vehicles only
Supply notes	Used primarily for the sporting oval and in emergencies for fire water supply
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Formby Road bore



Aerial view of Formby Road bore



Location map



Formby Road bore painted tanks (August 2022)



Solar array 2024



Coupling on northern tank



Coupling on southern tank

Formby Road bore site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Road reserve land ID 3386401
Catchment type	Bore
Catchment area (ha)	NA

Location and coordinates

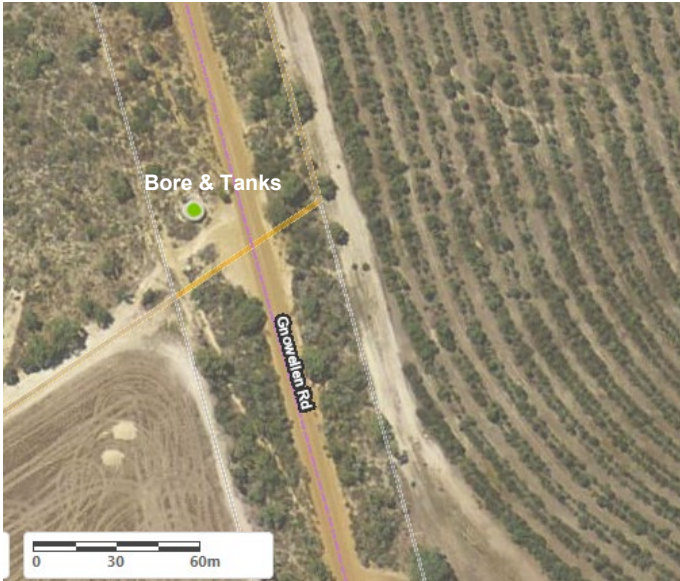
Location: Formby Road ~1.5 km south-east from Highdenup Road

Latitude	-34.10048
Longitude	118.06
Eastings	598580.07353
Northings	6226187.53923

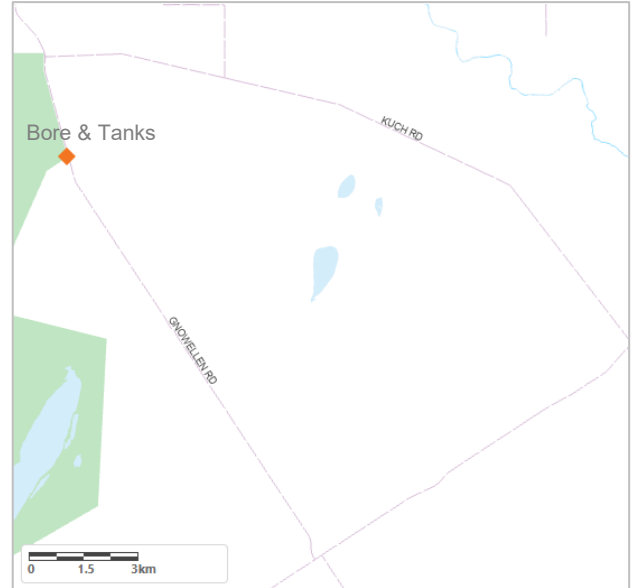
Water supply and access

Structure type	Bore and tanks
Tank capacity	1 x 56 kL concrete (<i>decommissioned</i>), 1 x 250 kL steel
Camlock coupling sizes	50 mm (2 inch), 80 mm (3 inch) and 100 mm (4 inch) outlets available
Standpipe Y/N	No
Swipe card Y/N	No
Pump available Y/N	Yes, solar powered
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Gnowellen Road bore



Aerial view of Gnowellen Road bore



Location map



Gnowellen Road tanks



Gnowellen Road standpipe



Couplings on tank

Gnowellen Road bore site description

Vesting	City of Albany
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	14792
Catchment type	Bore
Catchment area (ha)	NA

Location and coordinates

Location: Gnowellen Road ~2.5 km south of Kuch Road

Latitude	-34.344210821
Longitude	118.399254413
Eastings	628699.266359
Northings	6198790.83838

Water supply and access

Structure type	Tanks and electric pump (on bore only)
Capacity	Bore
Tank storage	1 x 90 kL concrete and 1 x 250 kL tank
Standpipe Y/N	Yes
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	City of Albany Community Emergency Services Manager 0428 035 292

Highdenup Road bore



Aerial view of Highdenup Road bore



Location map



Tanks (March 2020)



Concrete tank couplings



Fill point on steel tank 2 x 50, 80 and 100 mm



Logbook

Highdenup Road bore site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Road reserve / private entity
Catchment type	Bore
Catchment area (ha)	NA

Location and coordinates

Location: Highdenup Road ~3.8 km east from Formby Road

Latitude	-34.07673
Longitude	118.092
Eastings	600755.3594
Northings	6228798.28666

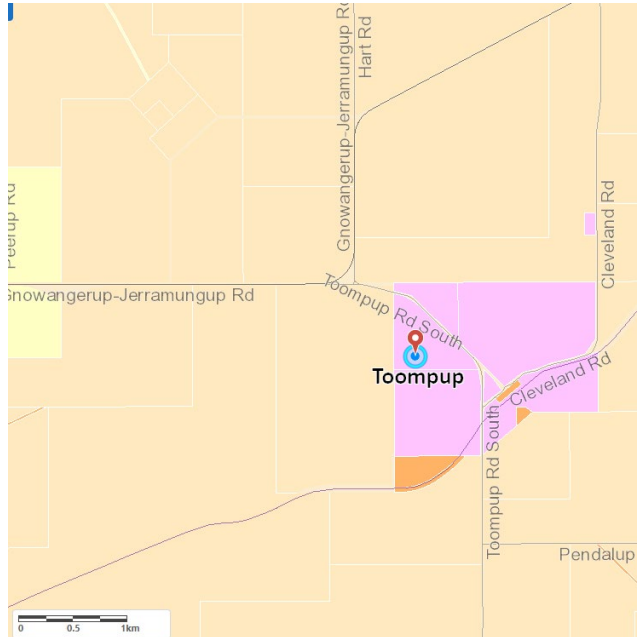
Water supply and access

Structure type	Bore, tanks and electric pump for bore
Tank capacity	1 x 88 kL concrete and 1 x 250 kL
Camlock coupling sizes	100, 80 mm and 2 x 50 mm outlets
Standpipe Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Toompup



Aerial view of Toompup



Location map



Toompup Dam (March 2020)



2 x 250 kL tanks



Solar pump on dam

Toompup site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	33769
Catchment type	Earth
Catchment area (ha)	~14 ha gravel pit and ~3 ha Earth

Location and coordinates

Location: Toompup Road South ~1.2 km East Gnowangerup – Jerramungup Road

Latitude	-34.011041317
Longitude	118.419118506
Eastings	631040.615306
Northings	6235711.93881

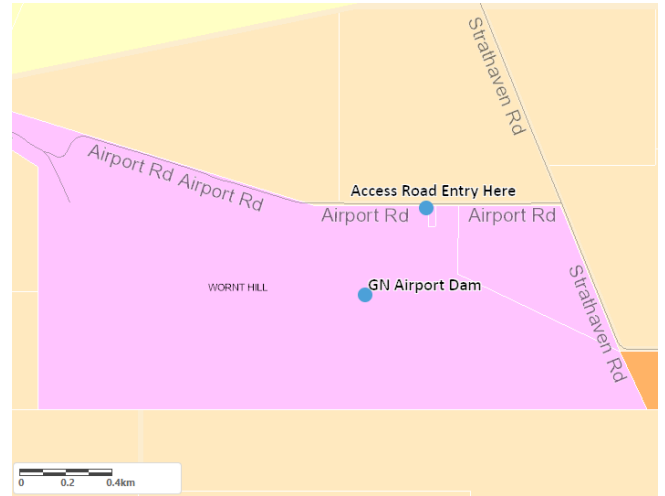
Water supply and access

Structure type	Dam and tanks
Dam capacity	33,000 kL
Tank storage	Tanks 2 x 250 kL
Standpipe Y/N	No
Pump available Y/N	No (solar pump supplies water from dams to tank)
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Gnowangerup Airport Dam



Aerial of Gnowangerup Airport Dam



Location map



Gnowangerup Airport Dam (July 2021)



Solar pump



Tanks and camlock outlets



Camlock outlets

Gnowangerup Airport Dam site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	31666
Catchment type	Airport runway to dam, then transferred to this dam
Catchment area (ha)	~18.1 ha

Location and coordinates

Airport Road access ~600 m east Strathaven Road

Latitude	-33.97894
Longitude	118.01972
Eastings	594194.11942
Northings	6239698.92488

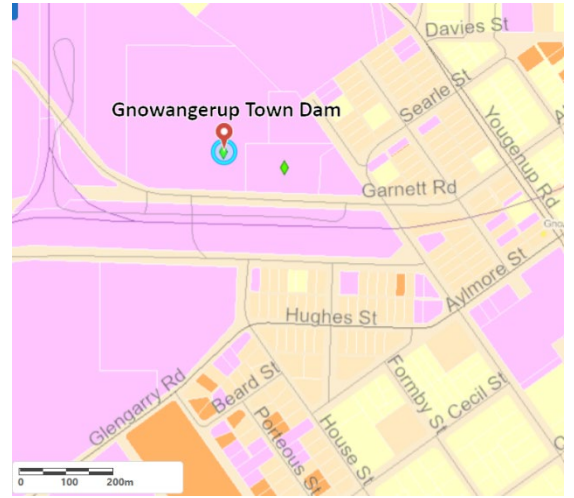
Water supply and access

Structure type	Dam, 2 x tanks
Capacity	32,500 kL
Tank storage	2 x 250 kL
Camlock outlet sizes	50, 80 and 100 mm – on each tank
Standpipe Y/N	Yes
Swipe card Y/N	Yes
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Gnowangerup (Town Dam)



Aerial of Gnowangerup (Town Dam #1)



Location map



Gnowangerup (Town Dam #1)



Standpipe at located on Garnett Road pull-through

Gnowangerup Dam site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	25098
Catchment type	Earth – Gnowangerup Town Dam #1 – Department of Water and Environmental Regulation, then transferred to this dam
Catchment area (ha)	Unknown – Gnowangerup Town Dam #1

Location and coordinates

Standpipe location Garnett Road ~300 m west from Corbett Street

Latitude	-33.93451
Longitude	117.99903
Eastings	592331.05404
Northings	6244656.43001

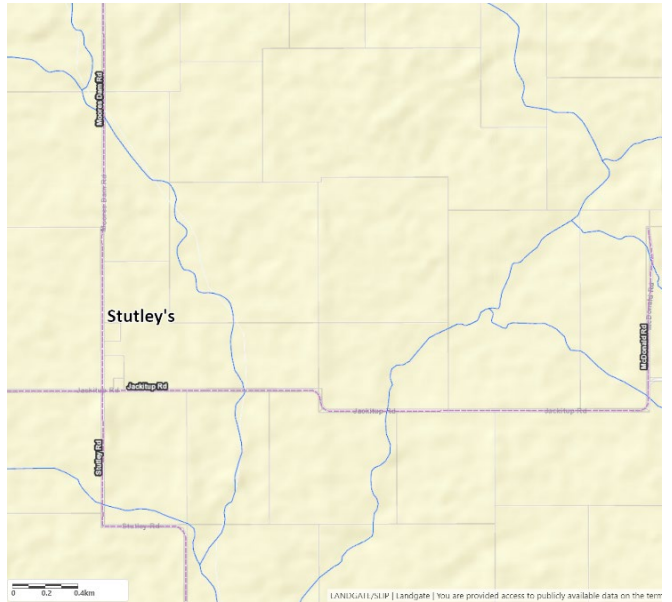
Water supply and access

Structure type	3 x dams interconnected
Capacity	Town Dam #1 (~43,000 kL), Shire Dam 8 m ³ , Bowling Club Dam 10 m ³ (please note approximate capacities only)
Tank storage	No
Standpipe Y/N	Yes, located on Garnett Road pull-through
Swipe card Y/N	Yes, contact Shire to register for use
Pump available Y/N	No (solar pump maintains level for middle dam)
Heavy vehicle access	Yes
Turnaround area	Yes
Supply Comments	Gnowangerup Town Dam #1 is interlinked with two other smaller dams, Shire Dam and Bowling Club Dam. Shire Dam has a solar pump and float level to maintain minimum level between the three dams
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Stutley Dam tank



Aerial of Gnowangerup (Town Dam #1)



Location map



Stutley Dam tank



Camlock outlets



Tank overflow



Solar pump

Stutley Dam tank site description

Vesting	Shire of Gnowangerup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Road reserve land ID 3070131
Catchment type	Dam
Catchment area (ha)	Road reserve

Location and coordinates

Standpipe location: Moose Dam Road ~0.36 km north from Jackitup Road

Latitude	-33.887536
Longitude	118.088183
Eastings	600625.889
Northings	6249780.868

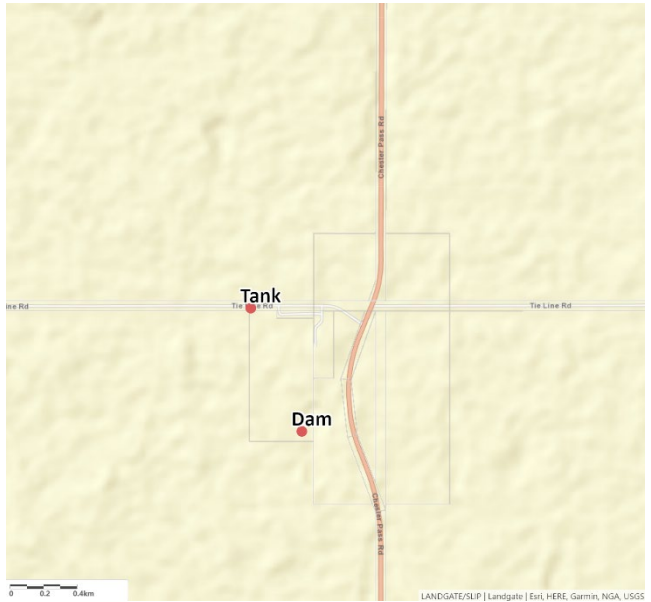
Water supply and access

Structure type	Dam and tank
Tank capacity	1 x 247 KL heritage corrugated tank
Camlock coupling sizes	50 mm (2 inch), 80 mm (3 inch) and 100 mm (4 inch) outlets available
Standpipe Y/N	No
Swipe card Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	No
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

Mindarabin CBH tank



Aerial of tank and dam



Location map



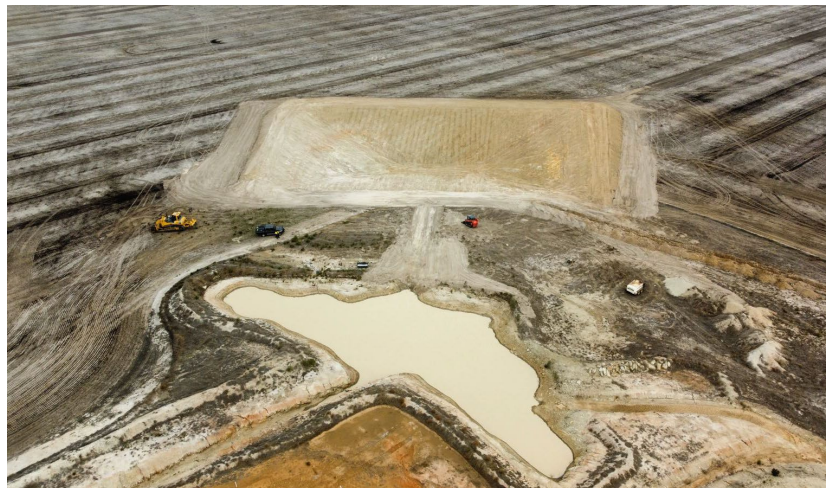
Tank



Camlock outlets



Solar array and pump



Dam and silt trap

Mindarabin CBH tank site description

Vesting	Shire of Gnowangerup / CBH
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Lot 9 on Deposited plan 419115
Catchment type	Dam
Catchment area (ha)	3.9 ha (CBH hardstand)

Location and coordinates

Location: Tie Line Road ~700 m west from Chester Pass Road

Latitude	-33.81306
Longitude	118.35600
Eastings	625501.802
Northings	6257744.713

Water supply and access

Structure type	Dam and tank
Dam capacity	6,500 kL
Tank capacity	1 x 280 kL
Camlock coupling sizes	50 mm (2 inch), 80 mm (3 inch) and 100 mm (4 inch) outlets available
Standpipe Y/N	No
Swipe card Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	No
Emergency access contact	Executive Manager Infrastructure and Assets 0439 791 925

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	<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 groundwater 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 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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