



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



Shire of Narembeen Plains

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: Mt Roe dam in the Shire of Narembeen.

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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 Narembeen 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 Narembeen, with symbols indicating the capacity, vesting and values of each site.

Shire of Narembeen map

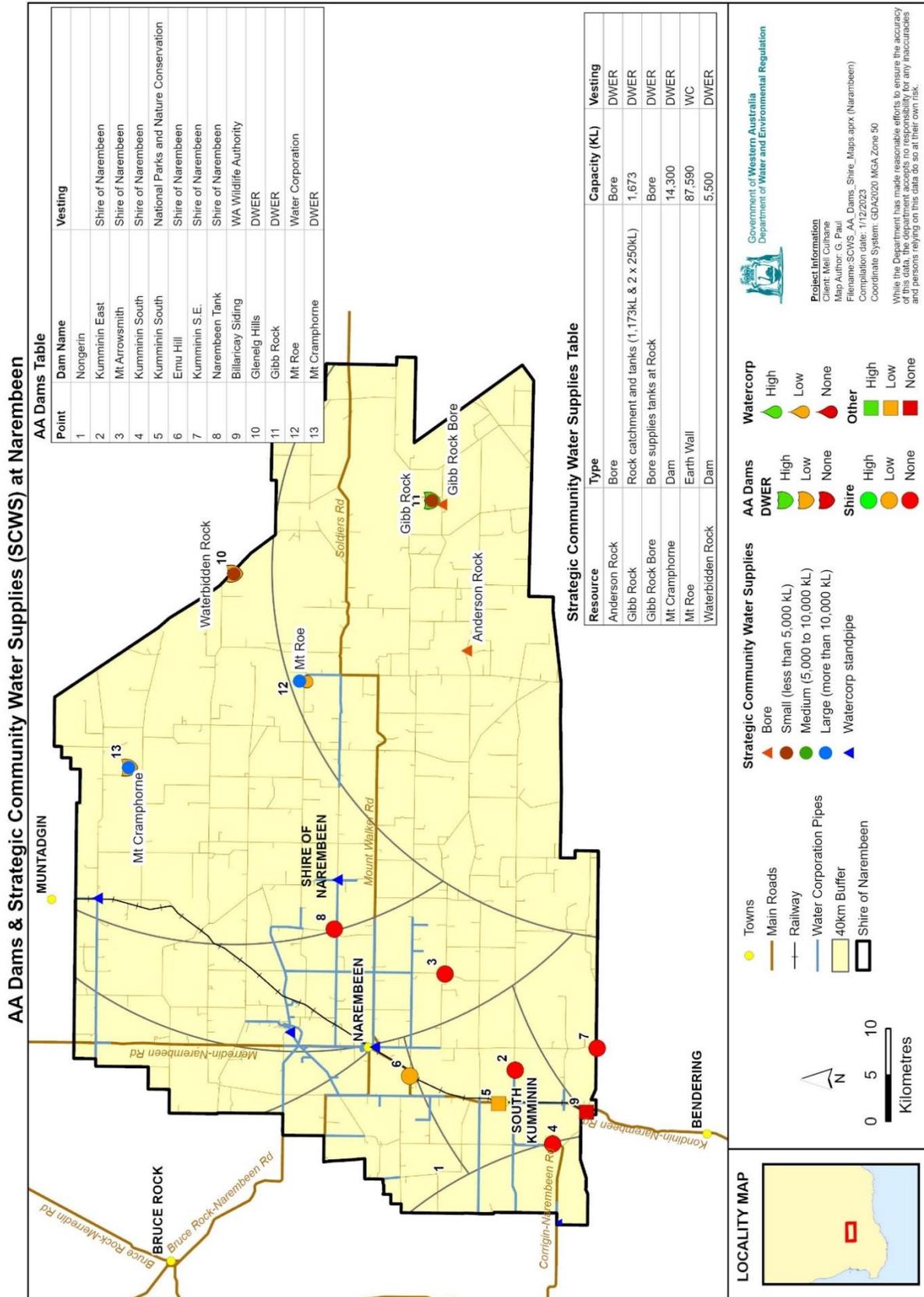


Figure 1- Location of Strategic Community Water Supplies (at 1 December 2023)

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) 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 Shire Administration Office 9064 7308 or Executive Manager Infrastructure Services 0429 647 330.

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 Narembeen SCWS sites

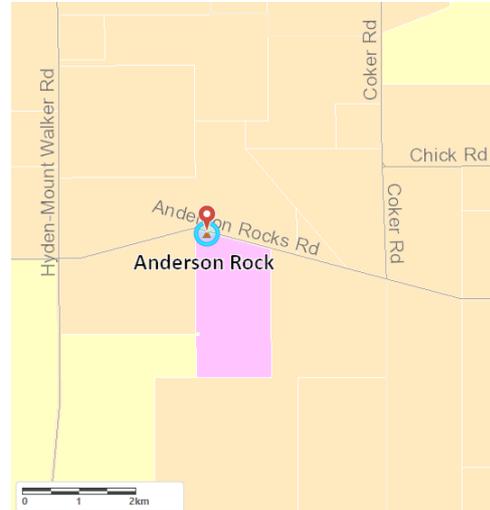
Site name	Location
Anderson Rock	Anderson Rocks Road ~ 2.7 km East of Hyden Mount Walker Road intersection
Gibb Rock	Gibb Rock Road ~ 1.2 km north from Langs Road
Gibb Rock bore	Langs Road ~ 750 m west from Gibb Rock and Langs Rock intersection
Mt Cramphorne	Kerses Road ~ 1.5 km north of Starcevich Chapman Road
Mt Roe	Yeomans Road ~ 1 km northwest from Roe Dam Road
Waterbidden Rock	Southeast off Wogarl East Road ~ 1.6 km

Description of community water supplies

Anderson Rock



Aerial view of Anderson Rock bore site



Location map



Anderson Rock bore

Anderson Rock 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	25469
Catchment type	Bore AR6 (Rock Catchment)
Catchment area (ha)	240ha

Location and coordinates

Location: Anderson Rocks Road ~ 2.7 km East of Hyden Mount Walker Road intersection

Latitude	-32.154605
Longitude	118.850638
Eastings	674521.953450
Northings	6440926.954540

Water supply and access

Structure type	Bore
Capacity	<10 kL/day
Water quality	300 mg/L TDS or 40mS/m (data from 2009)
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comment	Low yielding bore only to be used if Gibb Rock Tank or Roe Dam are low, in low rainfall and high off farm water demand periods.
Emergency access contact	Shire Admin: 9064 7689 or EMIS: 0429 647 330

Description of community water supplies

Gibb Rock



Aerial view of Gibb Rock



Location map



Gibb Rock 200 kL tank (September 2022)



Concrete tank (Feb 2011)



Coupling sizes (September 2022)



Rock catchment (July 2013)

Gibb 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	21130
AA dam #	455
Catchment type	Rock catchment and tanks
Catchment area (ha)	~72.2ha

Location and coordinates

Location: Gibb Rock Road ~ 1.2 km north from Langs Road

Latitude	-32.118546319
Longitude	119.021696798
Eastings	690731.299026
Northings	6444634.682190

Water supply and access

Structure type	Rock Catchment and tanks
Tank capacity	Concrete Tank 1173 kL and Steel 200 kL - I'm about to add another 250 kL in Aug?
Standpipe Y/N	Yes
Camlock coupling sizes	50mm (2"), 80mm (3"), 100mm (4")
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Shire Admin: 9064 7689 or EMIS: 0429 647 330

Description of community water supplies

Gibb Rock bore



Aerial of Gibb Rock bore



Location map



Gibb Rock bore (Nov 2010)

Gibb Rock Bore 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	21130
Catchment type	Bore (Rock Catchment)
Catchment area (ha)	N/A

Location and coordinates

Location: Langs Road ~ 750 m west from Gibb Rock and Langs Rock intersection

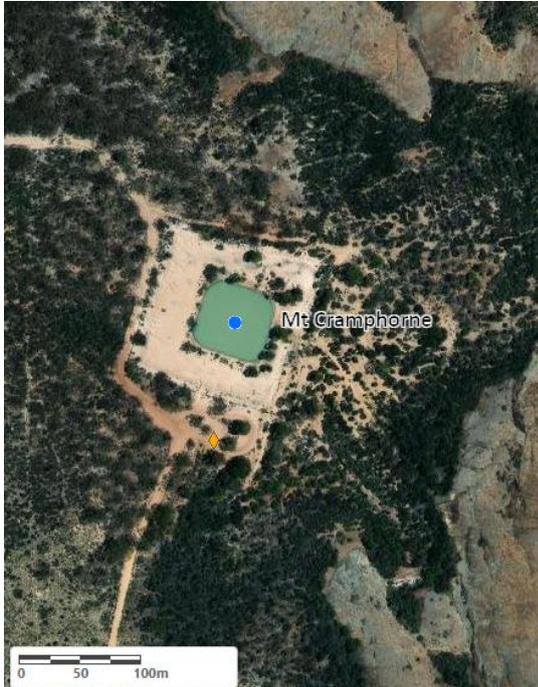
Latitude	-32.128154
Longitude	119.017422
Eastings	690307.979126
Northings	6443576.995850

Water supply and access

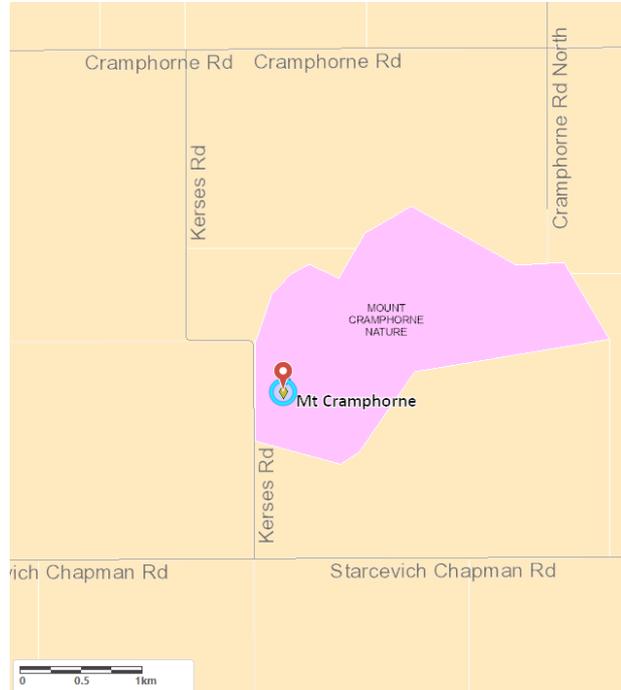
Structure type	Bore
Capacity	~ 22L/min (from records 2011)
Tank storage	Located at Gibb Rock
Standpipe Y/N	At Gibb Rock
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Bore supplies water to tanks at Gibb Rock via an electric pump with a backup generator at a local's farm (Terry Ashmore)
Emergency access contact	Shire Admin: 9064 7689 or EMIS: 0429 647 330

Description of community water supplies

Mt Cramphorne



Aerial of Mt Cramphorne



Location map



Mt Cramphorne dam (Nov 2012)

Mt Cramphorne 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	27521 Mt Cramphorne Nature Reserve
AA dam #	5001
Catchment type	Rock and Earth Catchment
Catchment area (ha)	~330 ha

Location and coordinates

Location: Kerses Road ~ 1.5 km north of Starcevich Chapman Road

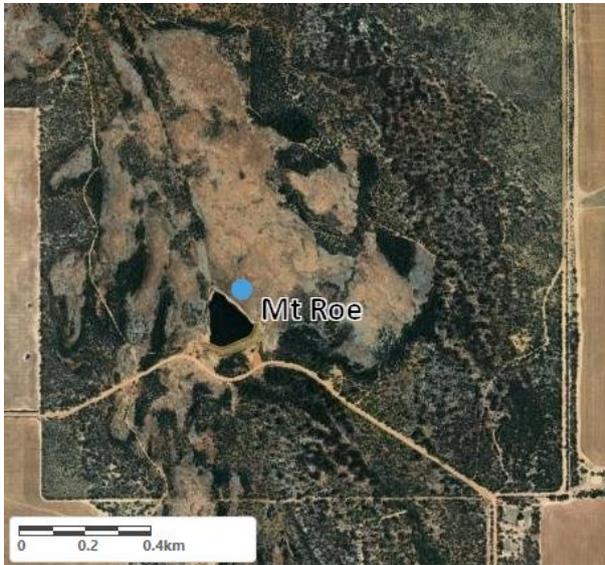
Latitude	-31.830119649
Longitude	118.710915397
Eastings	661913.115954
Northings	6477118.80540

Water supply and access

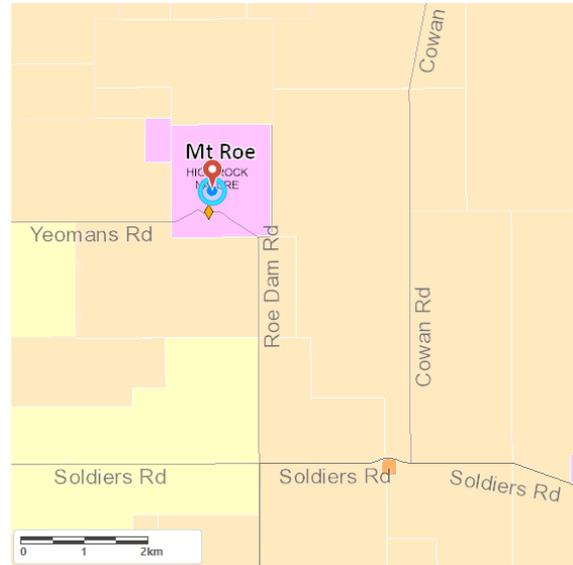
Structure type	Dam
Capacity	14,300 kL
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Supply comments	Constructed in 1966 for supply of water for farm settlement
Emergency access contact	Shire Admin: 9064 7689 or EMIS: 0429 647 330

Description of community water supplies

Mt Roe



Aerial of Mt Roe



Location map



Mt Roe dam and wall (Nov 2019)



Standpipe (Nov 2019)

Mt Roe description

Vesting	Water Corporation
Purpose	Strategic Community Water Supply for agricultural purposes including emergency stock and fire water
Associated reserve	29249 High Rock Nature Reserve
AA dam #	2034
Catchment type	Rock Catchment
Catchment area (ha)	~317 ha

Location and coordinates

Location: Yeomans Road ~ 1 km northwest from Roe Dam Road

Latitude	-31.981892
Longitude	118.420635
Eastings	634219.017722
Northings	6460690.007290

Water supply and access

Structure type	Earth Wall
Capacity	87,590 kL
Tank storage	No
Standpipe Y/N	Yes
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Shire Admin: 9064 7689 or EMIS: 0429 647 330

Description of community water supplies

Waterbidden Rock



Aerial of Waterbidden Rock



Location map



Old Waterbidden Rock dam (2014)



Dam after new works (Dec 2019).

Waterbidden Rock description

Vesting	Department of Water and Environmental Regulation
Purpose	Strategic Community Water Supply for agricultural purposes including emergency stock and fire water
Associated reserve	30473
Catchment type	Rock and Earth
Catchment area (ha)	~4.41 ha

Location and coordinates

Location: Southeast off Wogarl East Road ~ 1.6 km

Latitude	-31.928722
Longitude	118.933723
Eastings	682807.040150
Northings	6465833.041490

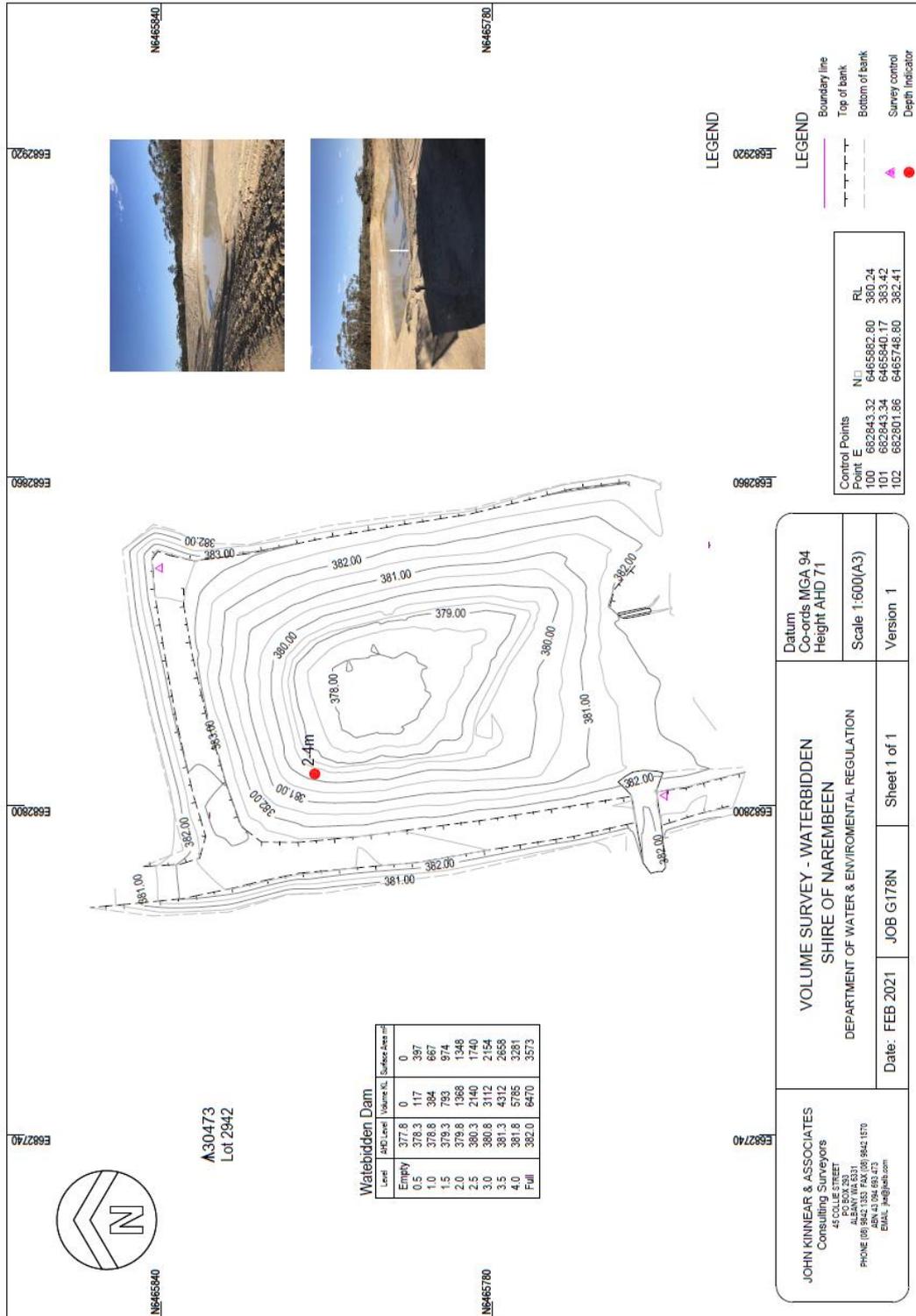
Water supply and access

Structure type	Dam
Capacity	6,470 kL
Tank storage	No
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Shire Admin: 9064 7689 or EMIS: 0429 647 330

Appendices

Appendix A – Dam surveys

Waterbidden Rock



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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