

# Shire of Jerramungup

Non-potable strategic community water supplies plan OFFICIAL

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For more information about this plan, contact:

Rural Water Planning, 1800 780 300

Cover photograph: Jerramungup Football Oval Tank, Jerramungup Shire

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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 Jerramungup 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 AA 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.

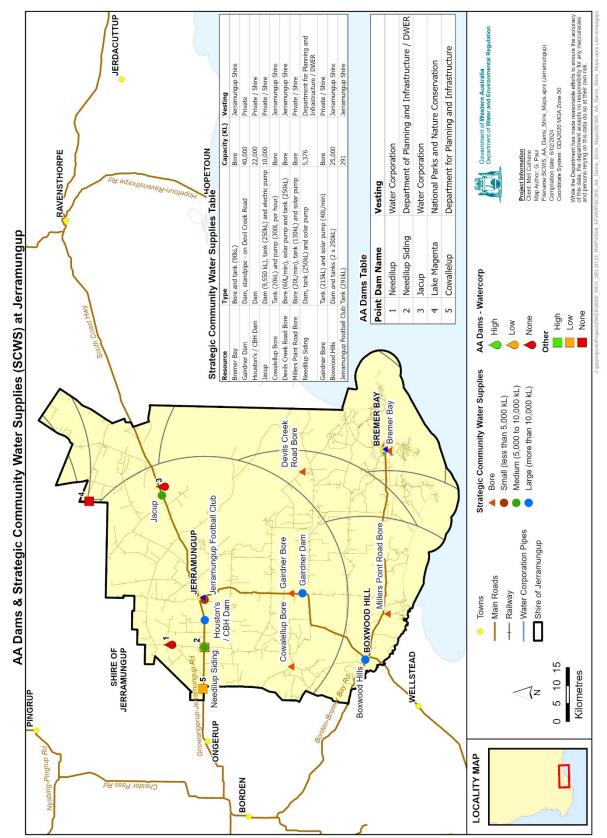
The department keeps in regular contact with rural communities to monitor the condition of SCWS, and identify and address any maintenance issues.

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.

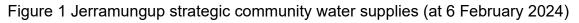
SCWS are a subset of the AA Dams that are reliable, in good to excellent repair and retain a high value. The department uses LGA maps to determine which sites are worth upgrading and to identify priority areas to develop new SCWS.

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



# Shire of Jerramungup map

Shire of Jerramungup non-potable strategic community water supplies plan



## 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 AA 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 trucks have swipe card access. The emergency access contact is the Works Supervisor on 0400 219 073.

### 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 <u>app.farmbot.com.au</u> (Login ID: <u>public.access</u> Password: <u>access1</u>) 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 Jerramungup SCWS sites

Site name	Location
Boxwood Hills	Fill point access located off Heath Street which can be accessed from either Circuit Road or Dryandra Street
Bremer Bay	Wellstead Road ~125 m from White Trail Road, Bremer Bay
Cowalellup Bore	Cowalellup Road ~275 <i>m from Normans Road</i>
Devils Creek Road Bore	Devils Creek Road ~3 km from Pabelup Drive
Gairdner Bore	South Coast Hwy ~5.5 km south from Marnigarup East Road
Gairdner Dam	South Coast Hwy ~670 m north of Devils Creek Road
Houston's CBH	Gnowangerup – Jerramungup Road ~3.5 km from Browns South Rd
Jacup Dam	South Coast Hwy ~1.5 km from Jacup Road North
Millers Point Road Bore	Millers Point Road ~1 km from Borden – Bremer Bay Road
Needilup Siding	Dam: Corner of Gnowangerup – Jerramungup Road and Needilup Road South Tank: On track into old tennis courts
Jerramungup Football Club	Derrick Street, Jerramungup

# Description of community water supplies

### Boxwood Hills





Aerial view Boxwood Hill supply



Salty Dam



Tank 2 x 250 kL located at sportsgrounds

Location map



Salty Dam catchment



Manifold north of sportsgrounds

### Boxwood Hills site description

Vesting	Shire of Jerramungup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	27035
Catchment type	Dam
Catchment area (ha)	4.76 ha

#### Location and coordinates

# Location: Fill point access located off Heath Street which can be accessed from either Circuit Road or Dryandra Street

Latitude	-34.35871
Longitude	118.74234
Eastings	660231.14
Northings	6196694.59

Structure type	Dams and tanks
Dam capacity	~25,000 kL
Tank storage	2 x 250 kL
Standpipe Y/N	No, manifold available with camlock couplings
Couplings	50, 75 and 100 mm
Pump Y/N	No
Heavy vehicle access	Yes – small trucks only
Turnaround area	No – straight through road
Supply comments	Salty Dam is pumped to tanks located north side of Boxwood Hills sporting grounds. When Salty Dam is not accessible due to low or high salt levels, water is pumped from a private AA Dam located across South Coast Hwy to the sporting grounds
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies

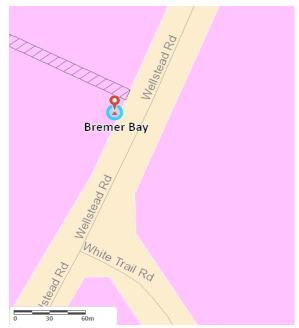
### Bremer Bay



Aerial view of Bremer Bay



Tank



Location map



Bore

### Bremer Bay site description

Vesting	Shire of Jerramungup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	511
Catchment type	Bore
Catchment area (ha)	NA

#### Location and coordinates

### Location: Wellstead Road ~125 m from White Trail Road, Bremer Bay

Latitude	-34.406258812
Longitude	119.376950683
Eastings	718478.58050
Northings	6190235.72316

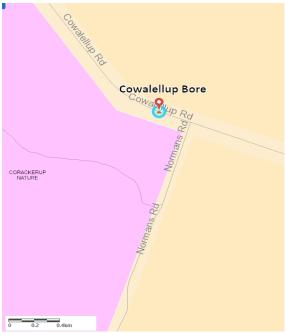
Structure type	Bore and tank
Capacity	Bore pump yield unknown
Tank storage	90 and 83 kL
Standpipe Y/N	Yes
Pump Y/N	Yes
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies

### Cowalellup bore



Aerial view of Cowalellup bore



Location map



Cowalellup tank with bore fenced

### Cowalellup bore site description

Vesting	Shire of Jerramungup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Located on road reserve, opposite Corackerup Nature Reserve 26793
AA Dam #	625
Catchment type	Bore
Catchment area (ha)	NA

#### Location and coordinates

#### Location: Cowalellup Road ~275 m from Normans Road

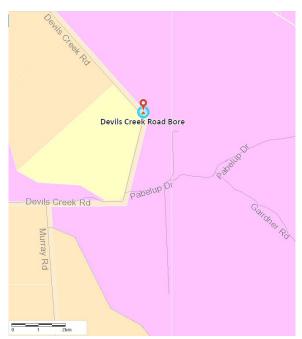
Latitude	-33.839818
Longitude	119.226841
Eastings	658249.93032
Northings	6217451.75735

Structure type	Bore, tank and pump
Capacity	300 L/hour pump capacity (connected to mains power)
Tank storage	20 kL
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies

### Devils Creek Road bore





Location map



Tank at Devils Creek Road



Bore with solar pump

### Devils Creek Road bore site description

Vesting	Shire of Jerramungup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Opposite 33258 Reserve
Catchment type	Bore
Catchment area (ha)	NA

#### Location and coordinates

### Location: Devils Creek Road ~3 km from Pabelup Drive

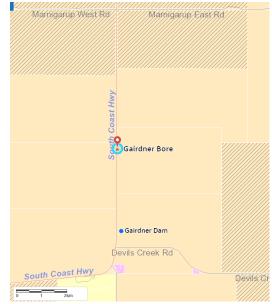
Latitude	-34.19010
Longitude	119.30670
Eastings	712564.37641
Northings	6214360.53875

Structure type	Bore
Capacity	60 L/min
Tank storage	Yes 250 kL
Standpipe Y/N	No
Pump Y/N	No
Heavy vehicle access	Yes (note: tank is located on private property – please shut the gate)
Turnaround area	Yes
Supply comment	Bore is pumped to tank located inside the Fregon family's farm paddock on Devils Creek Road ~500 m north-west from bore (please respect property)
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies Gairdner bore (tank located at Rye Park, Viridis)



Aerial view of Gairdner bore



Location map





Tank



Tank level indicator

Fill point, camlock couplings





Signage at entry to farm

### Gairdner bore site description

Vesting	Private property under agreement with the Shire of Jerramungup to access
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Private land
Catchment type	Bore
Catchment area (ha)	NA

#### Location and coordinates

### Location: South Coast Hwy ~5.5 km south from Marnigarup East Road

Latitude	-34.16848
Longitude	118.93853
Eastings	678677.52469
Northings	6217465.03695

T
Bore and tank
~40 L/min
215 kL
No
No
Yes – smaller trucks only
Small
Bore water is pumped from the bore on a farmer's property to tank (please respect property)
Works Supervisor 0400 219 073

# Description of community water supplies

### Gairdner Dam



Aerial view Gairdner Dam and standpipe



Standpipe house



Standpipe



Gairdner Dam plaque



Gairdner Dam

### Gairdner Dam site description

Vesting	Gairdner Dam – private, collection AA Dam – CBH
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Private land and CBH land
Catchment type	CBH catchment
Catchment area (ha)	~1.3 ha

#### Location and coordinates

### Location: South Coast Hwy ~670 m north of Devils Creek Road

Latitude	-34.197847567
Longitude	118.940168655
Eastings	678766.59447
Northings	6214205.15545

Structure type	Dam and standpipe
Capacity	40,000 kL
Tank storage	No
Farm bot Y/N	Yes
Standpipe Y/N	Yes, located on Devils Creek Road
Pump available Y/N	No
Heavy vehicle access	Yes, at Devils Creek Road standpipe
Turnaround area	Yes, at Devils Creek Road standpipe
Supply comments	Water is pumped from CBH Collecting Dam to Gairdner main AA Dam then gravity fed to standpipe on Devils Creek Road
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies Houston's CBH



Aerial view Houston's CBH Dam

Location map



Houston's Dam



Standpipe at Houston's Dam

Pump at standpipe

### Houston's CBH site description

Vesting	Private / Shire of Jerramungup agreement
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Private land
Catchment type	CBH bin site and farmland
Catchment area (ha)	15 ha

### Location and coordinates

# Location: Gnowangerup–Jerramungup Road ~3.5 km from Browns South Road

Latitude	-33.953661372
Longitude	118.853169111
Eastings	671240.34269
Northings	6241434.90454

Structure type	Dam
Dam capacity	22,000 kL
Tank storage	No
Standpipe Y/N	Yes, located at foot of AA Dam at turnaround point
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Notes	New pump, silt trap built and CBH pipe cleaned out in January 2021
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies

### Jacup Dam



Aerial view of Jacup Dam

Location map



Jacup Dam (December 2021)



Jacup tank



Jacup tank, access to tank camlock couplings

### Jacup Dam site description

Vesting	Private / Shire of Jerramungup agreement
Purpose	Strategic community water supply for agricultural purposes including emergency stock and fire water
Associated reserve	Private property
Catchment type	Earth and South Coast Highway drainage channel
Catchment area (ha)	0.80 ha plus South Coast Highway drainage west of dam

#### Location and coordinates

### Location: South Coast Hwy ~1.5 km from Jacup Road North

Latitude	-33.839818
Longitude	119.226841
Eastings	706048.99367
Northings	6253373.99286

Structure type	Dam and tank
Dam capacity	9,550 kL
Tank storage	186 kL
Standpipe Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies Millers Point Road bore



Aerial view Millers Point Road bore



Tank 132 kL at Millers Point



Location map



Camlocks on plinth

### Millers Point Road bore site description

Vesting	Private / shire (agreement to be completed in 2024)
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	Private property
Catchment type	Bore
Catchment area (ha)	NA

#### Location and coordinates

### Location: Millers Point Road ~1 km from Borden – Bremer Bay Road

Latitude	-34.41185
Longitude	118.88200
Eastings	672966.68869
Northings	6190571.63124

Structure type	Bore, tanks
Capacity	Bore 20 L/min
Tank storage	132 kL
Camlock outlet sizes	80 and 50 mm
Standpipe Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes, smaller trucks
Turnaround area	Yes
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies Needilup Siding



Aerial view of Needilup Siding

Location map



Needilup Siding Dam, solar panel and pump in distance on right bank (October 2020)



Needilup Siding tank (July 2020)

### Needilup Siding site description

Vesting	Department of Planning, Lands and Heritage / Department of Water and Environmental Regulation agreement
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	33534
AA Dam #	233
Catchment type	Earth
Catchment area (ha)	2.82 ha

#### Location and coordinates

# Location Dam: Corner of Gnowangerup–Jerramungup Road and Needilup Road South

#### Location tank: On track into old tennis courts

Latitude	-33.95385
Longitude	118.77113
Eastings	663658.46949
Northings	6241547.60552

Structure type	Dam, tank and solar pump
Dam capacity	5,376 kL
Tank storage	250 kL (at sporting complex entrance road old tennis court)
Camlock outlet sizes	100 and 80 mm
Standpipe Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Works Supervisor 0400 219 073

# Description of community water supplies Jerramungup Football Club



Aerial view of Football Club tank



Location map



291 kL tank installed in 2023



Access ladder and outlet



Manifold outlet set-up

### Jerramungup Football Club site description

Vesting	Shire of Jerramungup
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	25568
AA Dam #	NA
Catchment type	NA
Catchment area (ha)	NA

#### Location and coordinates

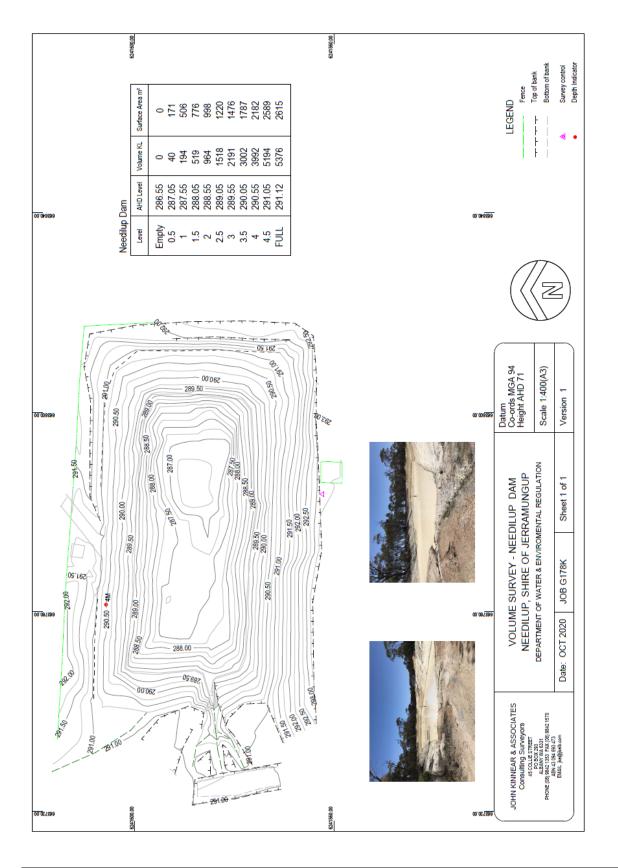
#### Location: Jerramungup Football Club, Derrick Street

Latitude	-33.95239
Longitude	118.91471
Eastings	676930.393
Northings	6241471.415

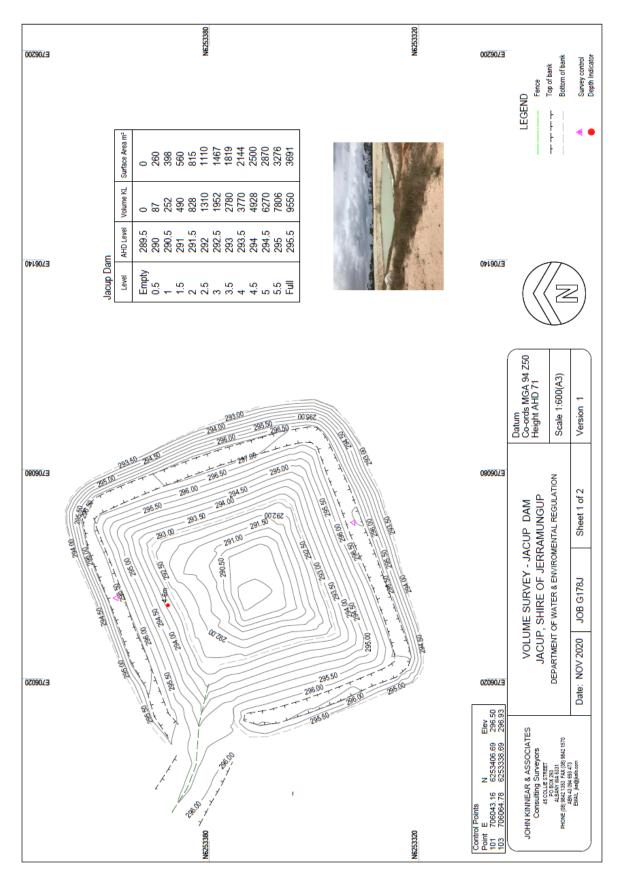
Structure type	Tank
Dam capacity	NA
Tank storage	291 kL
Camlock outlet sizes	100, 75 and 50 mm
Standpipe Y/N	No, manifold available with camlock couplings
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contact	Works Supervisor 0400 219 073

# Appendix Dam surveys

### Needilup Dam survey



### Jacup Dam survey



# 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 AA Dam).
	Bore – a drilled casing that accesses groundwater to provide a water supply.
	CBH – water is captured from CBH grain silo storage facility and stored in a dam or tank.
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 <u>app.farmbot.com.au</u> (Login ID: <b>public.access</b> Password: <b>access1</b> ) 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 the pumping system. Contact the Shire for more information.
Vesting	Person or governing agency with responsibility for managing land.

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