



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



Shire of Esperance

Non-potable strategic community
water supplies plan

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Cover photograph: Scaddan Open Dam, Shire of Esperance

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Contents

Summary	1
Introduction.....	2
Strategic community water supplies and agricultural area dams	3
Shire of Esperance map	4
Strategic community water supply access.....	5
Overview of different fill points	5
Swipe card systems.....	5
Farm bots.....	5
Shire of Esperance SCWS sites	6
Description of community water supplies	7
Cascade.....	7
Cascade site description	8
Grass Patch Siding.....	9
Grass Patch Siding site description	10
Howick Hill	11
Howick Hill site description	12
Salmon Gums.....	13
Salmon Gums site description.....	14
Scaddan.....	15
Scaddan site description	16
Glossary	17

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

Shire of Esperance map

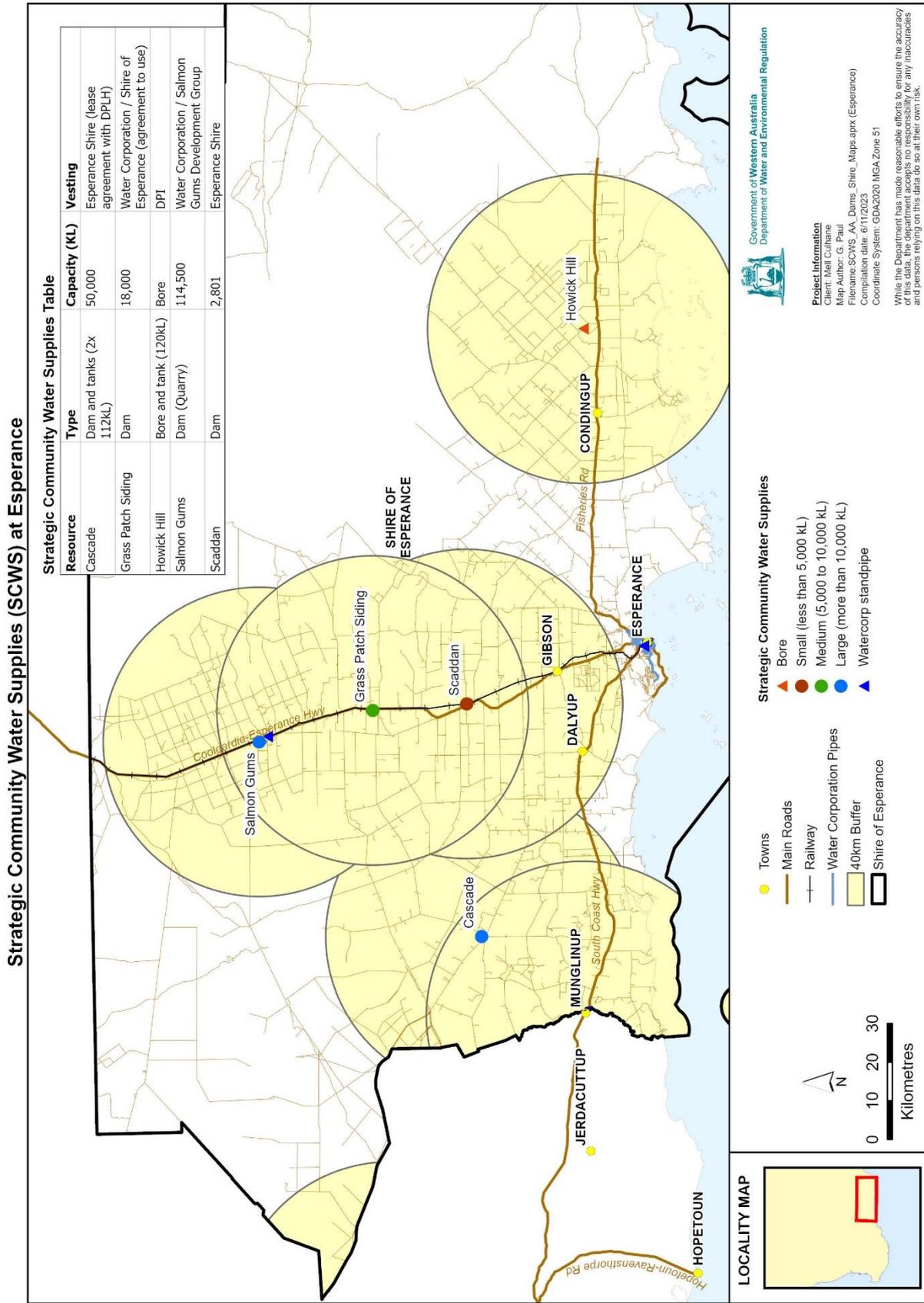


Figure 1 – Location of strategic community water supplies (at 6 November 2023)

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 requiring 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 fires, the tanks can be accessed by the fire water connection point. Any issues with access to water can be directed to after-hours contact on (08) 9083 1530.

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 Esperance SCWS sites

Site name	Location
Cascade	End of Mitten-Watson Road, off Cascade Road
Grass Patch Siding	Townsend Street off Coolgardie-Esperance Highway, Grass Patch
Howick Hill	Howick Road ~2.1 km from Henke's Road
Salmon Gums	Esperance-Norseman Highway, Fitzgerald
Scaddan	Grigg Street, Scaddan

Description of community water supplies

Cascade



Aerial view of Cascade dam



Location map



Cascade dam (August 2020)



Cascade standpipe



Storage tanks adjacent to standpipe

Cascade site description

Vesting	Shire of Esperance
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water.
Associated reserve	35253 & 35069
Catchment type	Earth
Catchment area (ha)	15.4 ha

Location and coordinates

Location: End of Mitten-Watson Road, off Cascade Road

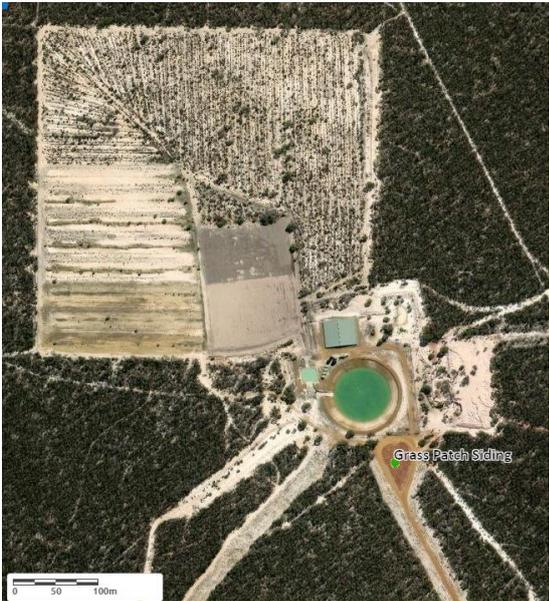
Latitude	-33.467951
Longitude	121.078836
Eastings	321473.01952
Northings	6295183.05307

Water supply and access

Structure type	Dams and 2 x tanks
Dam capacity	50,000 kL
Tank storage	2 x 375 kL
Standpipe Y/N	Yes, overhead standpipe with fobs (need to contact shire for access).
Swipe card	Yes
Pump available Y/N	Yes
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	(08) 9083 1530 – After Hours

Description of community water supplies

Grass Patch Siding



Aerial view Grass Patch Siding dam



Location map



Dam (November 2018)

Grass Patch Siding site description

Vesting	Water Corporation/Shire of Esperance (agreement to use)
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	13436
AA dam #	535
Catchment type	Earth
Catchment area (ha)	~15.6 ha

Location and coordinates

Location: Townsend Street, off Coolgardie-Esperance Highway, Grass Patch

Latitude	-33.22412157
Longitude	121.71162284
Eastings	379946.30963
Northings	6323126.82455

Water supply and access

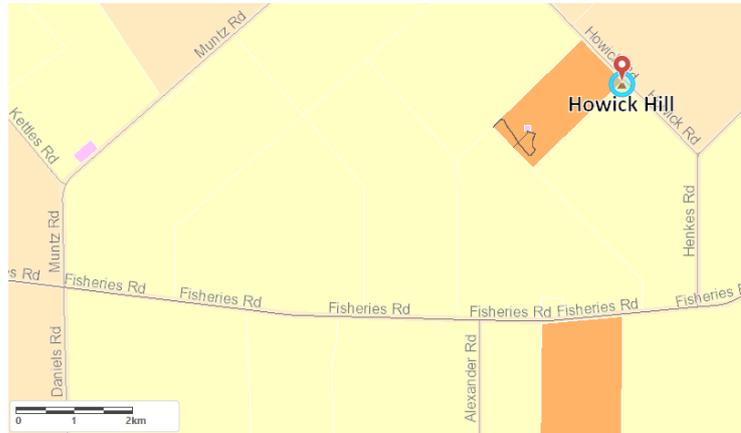
Structure type	Dam and silt trap
Capacity	18,000 kL
Tank storage	Nil
Standpipe Y/N	No
Pump available Y/N	No
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	(08) 9083 1530 – After Hours

Description of community water supplies

Howick Hill



Aerial view of Howick Hill



Location map



Tank and standpipe (September 2011)



Tank



Overhead standpipe



Solar panels



Bore housing



Standpipe in use



Signage

Howick Hill site description

Vesting	Shire of Esperance
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water.
Associated reserve	Road reserve ID 3671964
Catchment type	Bore
Catchment area (ha)	N/A

Location and coordinates

Location: Howick Road ~2.1 km from Henke's Road

Latitude	-33.718
Longitude	122.769332
Eastings	478628.155
Northings	6269087.0253

Water supply and access

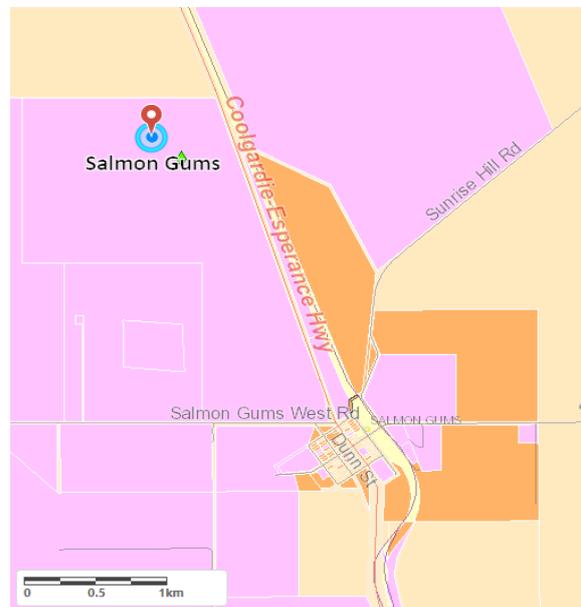
Structure type	Bore and tank
Tank capacity	120 kL
Standpipe Y/N	Yes, overhead standpipe, gravity feed
Pump available Y/N	Solar pump to draw water from bore to tanks
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	(08) 9083 1530 – After Hours

Description of community water supplies

Salmon Gums



Aerial view of Salmon Gums



Location map



Salmon Gums dam (October 2012)



Standpipe at the quarry



Water Deficiency Declaration (WDD) tanks only used/filled in emergencies – no connection to the quarry

Salmon Gums site description

Vesting	Water Corporation/Salmon Gums Development Group
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water.
Associated reserve	13328 & 50434
Catchment type	Earth
Catchment area (ha)	21.7 ha

Location and coordinates

Location: Coolgardie-Esperance Highway, Salmon Gums

Latitude	-32.960385
Longitude	121.628522
Eastings	371819.981279
Northings	6352270.021450

Water supply and access

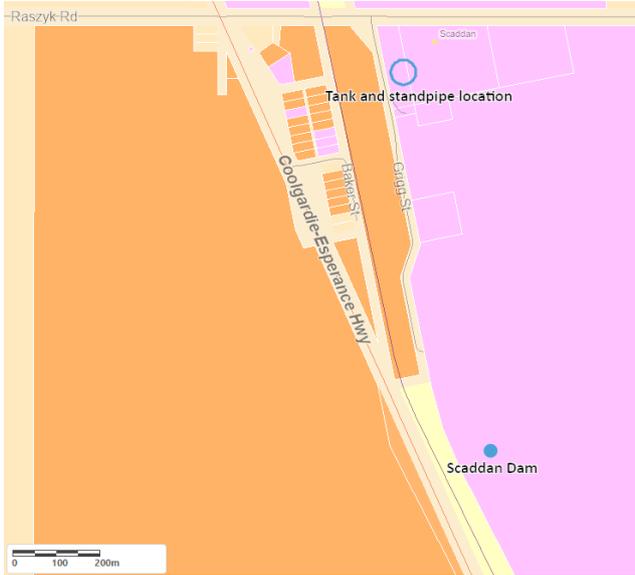
Structure type	Granite quarry dam (4 x tanks not connected to dam)
Dam capacity	114,500 kL
Tank storage	No
Standpipe Y/N	Yes, key from Water Corporation
Pump Y/N	Yes
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	Water Corporation

Description of community water supplies

Scaddan



Aerial view of Scaddan dam



Location map



Scaddan dam (2022)



Scaddan tanks and standpipe (2022)

Scaddan site description

Vesting	Shire of Esperance
Purpose	Strategic community water supply for agricultural purposes, including emergency stock and firefighting water
Associated reserve	31467 (tanks and standpipe) 34514 (dam)
Catchment type	Earth
Catchment area (ha)	7 ha

Location and coordinates

Location: Grigg Street, Scaddan

Latitude	-33.442082
Longitude	121.726627
Eastings	381640
Northings	6298977

Water supply and access

Structure type	Dam and 2 x tanks
Dam capacity	~10,000 kL
Tank storage	Yes 2 x 375 kL
Standpipe Y/N	Yes, overhead standpipe with fobs (need to contact shire for access)
Pump available Y/N	Yes
Heavy vehicle access	Yes
Turnaround area	Yes
Emergency access contacts	(08) 9083 1530 – After Hours

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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