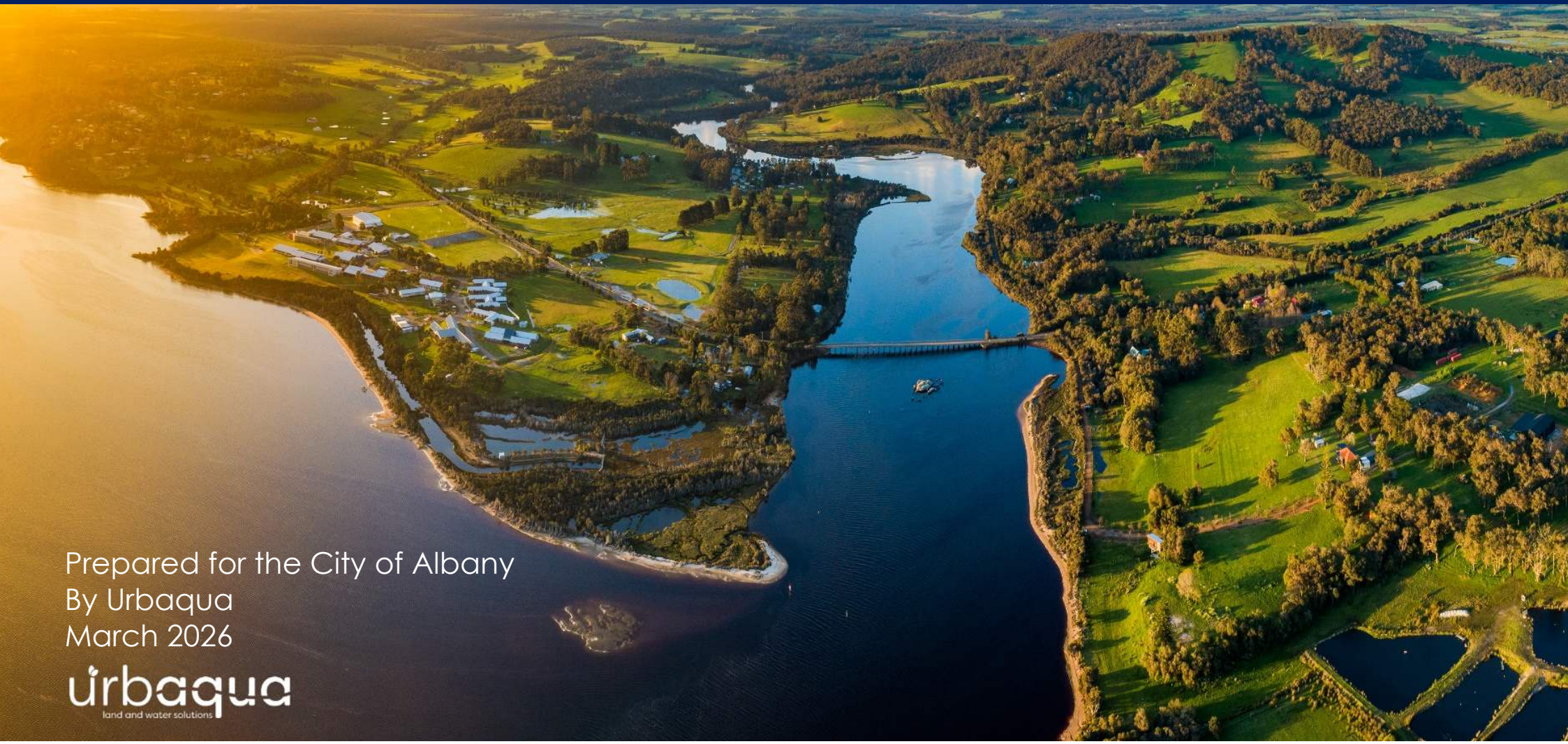
WATERWISE ALBANY



Prepared for the City of Albany
By Urbaqua
March 2026

THE CITY OF ALBANY RESPECTFULLY ACKNOWLEDGES THE MENANG NOONGAR PEOPLE AS THE TRADITIONAL CUSTODIANS OF THE LAND ON WHICH THE CITY CONDUCTS ITS BUSINESS, AND PAYS RESPECT TO ELDERS PAST AND PRESENT.

Cover image: Tamungup/Kalgan rivermouth
Image: Wattierup/Oyster Harbour Fish Traps

CONTENTS

Figures

Tables

1 INTRODUCTION

The City of Albany, located in the Great Southern region of Western Australia, contains many valued natural resources and landscapes. As the city continues to grow, the sustainable management of water resources is increasingly vital. This strategy seeks to support the City in its role in water management, by outlining a Vision, strategies and actions to secure a resilient and sustainable water future for the City of Albany.

Roles in Water Resource Management

In Western Australia the Department of Water and Environmental Regulation (DWER) is the lead agency responsible for managing, regulating and protecting the State's water resources. Key responsibilities include:

- Water licensing and allocation (groundwater and surface water)
- Management of Public Drinking Water Source Areas (PDWSAs)
- Strategic planning for long term water availability
- Water use monitoring and compliance
- Environmental protection – management of water quality, environmental impact assessments and coordination of cross-government efforts to protect and manage waterways.

The Water Corporation is the main supplier of water and sewerage services across the City and is responsible for planning for potable water to meet the needs of the future population. The Water Corporation also manages a series of agricultural drains between Wilson Inlet and Princess Royal Harbour known as the Albany Drainage District.

Local Governments' role in water management varies according to each local government area. In the City of Albany, key responsibilities include:

- Irrigation of Public Open Space (POS) eg. parks, ovals and public gardens
- Managing stormwater and drainage assets
- Adopting water sensitive urban design
- Working in partnership with other organisations to help deliver projects to enhance biodiversity and waterway health.
- Emergency management and climate resilience eg., flood and bushfire response.
- Promoting community water literacy and supporting waterwise behaviours
- Monitoring of the Citys' own (Corporate) water consumption and implementing water efficiency initiatives.

1.1 Purpose

This strategy has been developed to guide activities that are the responsibility of the City of Albany with regards to the management of water resources across the municipality (Figure 1) in the medium term (next 10 years).

It will also provide a platform to facilitate collaborative action with other government agencies, industries and the community, optimising the delivery of shared values, objectives and outcomes within the City of Albany.

The strategy also seeks to fulfil the requirements of a new Waterwise Council Action Plan (see Appendix 1), which is a requirement for continued participation in the DWER and Water Corporation Waterwise Council program.

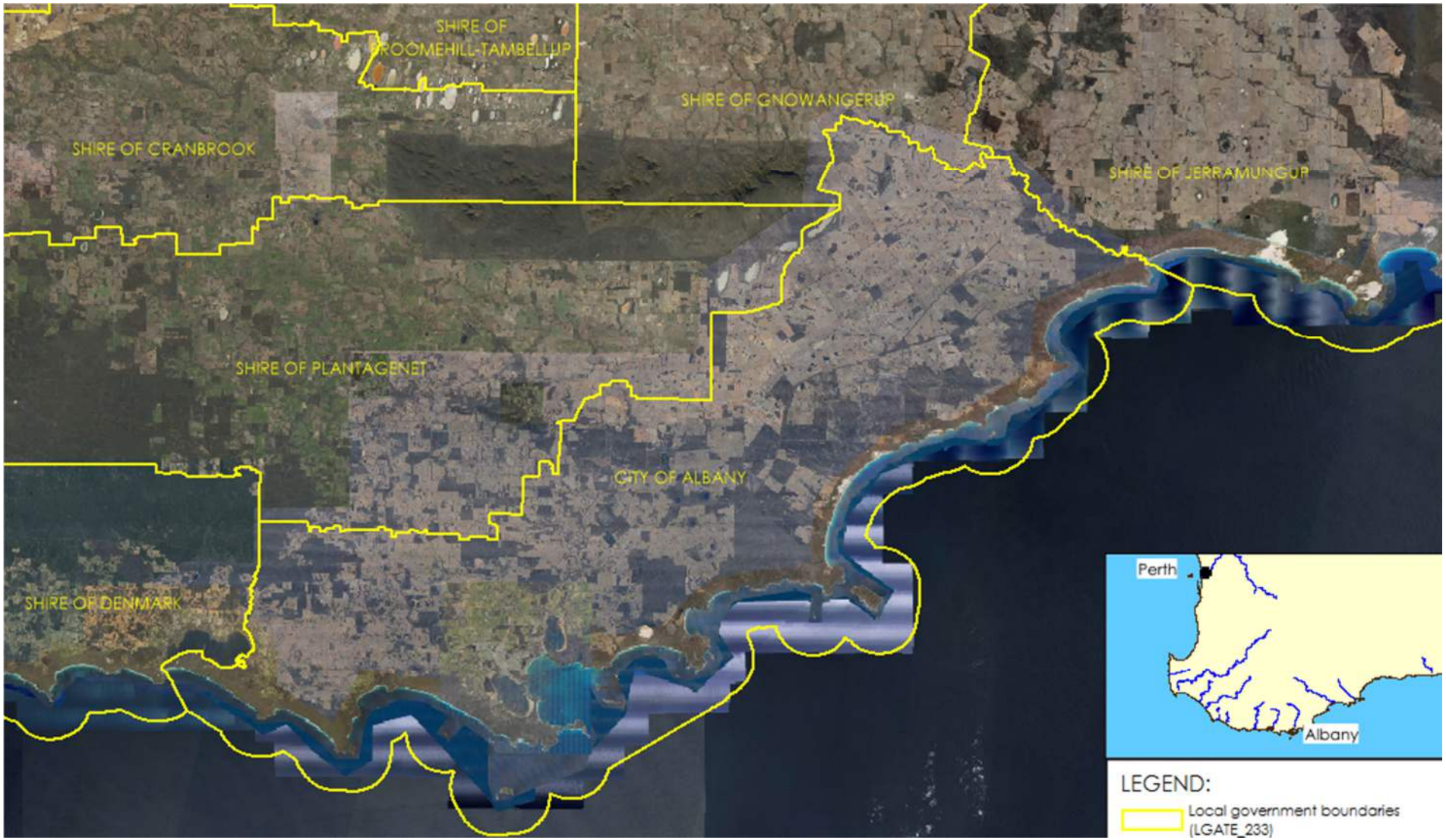


Figure 1: City of Albany

Preparation of this strategy also fulfils action 2.2.1.1 of the City of Albany Corporate Business Plan 2023-2027 which is to "provide a Waterwise Strategy".

The Implementation Plan will be reviewed and updated on a regular basis to underpin continued action towards achievement of strategy objectives, with the actions delivered through current budgets or incorporated into the budget process and business plan.

1.2 Preparation of the report

The Strategy has been prepared with considerable input from the City, including via a number of workshops. Consideration has been given to:

- The results of a community survey which was open from mid November to the end of December 2024 which received 74 responses from residents of 29 suburbs.
- Visioning workshop with City staff – 29 January 2025.
- Enabling strategies workshop with City staff – 26 February 2025.
- Strategies and actions workshop with City staff -27 March 2025.
- Results of the Water Sensitive Cities Index benchmarking workshop in 2022.
- Other related activities including the City of Albany Strategic Community Plan 2032, Corporate Business Plan 2023-2027 and Stormwater Management Strategy 2017.
- Feedback received on Draft Strategy from community members and the following organisations (Jan – February 2026):
    - Department of Water and Environmental Regulation
    - Department of Biodiversity, Conservation and Attractions
    - Water Corporation
    - Wagyl Kaip Southern Noongar Aboriginal Corporation
    - South Coast Natural Resource Management

Additional information on the inputs to developing the Strategy can be provided on request.

It is noted that the City is also in the process of preparing a Local Biodiversity Strategy and Urban Forest Strategy. Accordingly, actions relevant to water management that are more closely linked to the achievement of biodiversity and urban forest outcomes will be incorporated into these strategies.

1.3 Guiding policy, strategy and guidelines

The key strategies, policies and guidelines considered to have particular relevance to the City of Albany Waterwise Strategy include:

- Strategic Community Plan 2032
- City of Albany Local Planning Scheme
- City of Albany Local Planning Strategy
- City of Albany Corporate Business Plan 2023-27
- Developed Managed Space: Parks & Gardens Policy
- Environmental Weed Management Plan, 2019
- Stormwater Management Strategy 2017
- Strategic Asset Management Plan
- Urban Tree Strategy, 2017
- Verge Development Guidelines, 2022
- State Planning Policy 2.9 Water (SPP 2.9) and the Planning for Water Guidelines (WAPC, 2025)
- Great Southern Regional Water Supply Strategy (DWER, 2014)

A summary of these documents is provided in Appendix 2. City of Albany strategic documents can be found on the City's website https://www.albany.wa.gov.au/documents/strategies

2 CONTEXT – WATER IN THE CITY OF ALBANY

The City of Albany spans an area of more than 4,300 square kilometres and supports a population of approximately 38,000. Key water features include Princess Royal Harbour, Mammang Koort/King George Sound, Kalganup/Kalgan River, King River and Tjuitgellong/Lake Seppings. Key water infrastructure includes reticulated water and wastewater networks operated by the Water Corporation in the regional centre, as well as self-supplied use of groundwater, rainwater and on-site wastewater management. The City also manages areas of irrigated public open space, waterway foreshores, wetland buffers and drainage reserves.

2.1 Key environmental conditions

There are a number of factors relevant to the management of water resources that require consideration when delivering the strategies and actions to create a sustainable water future. These include climate, soils, topography, waterways and wetlands, groundwater and vegetation. These conditions are summarised below.

2.1.1 Climate

The climate in Albany is typical of the south-west of Western Australia with mild, wet winters and warm, dry summers. Weather data from the Albany Bureau of Meteorology weather station (Station No. 9500), as presented in Figure 1, records average maximum temperatures ranging from 22.9 degrees Celsius in February to 15.9 degrees in July. Average minimum temperatures range from 15.7 degrees in February to 8.3 degrees in July.

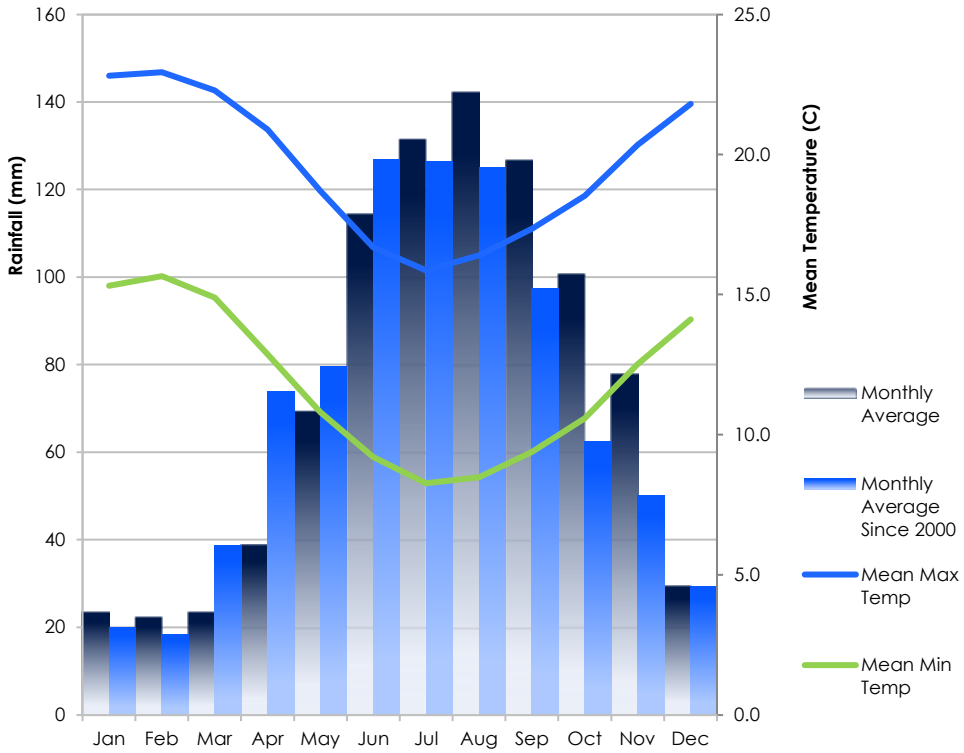


Figure 2: Climate summary data for Albany (BOM Station No: 9500)

The average annual rainfall recorded in Albany since 1877 is 922.6 mm but has declined in recent years to an average of 809 mm since 2010 (Figure 3).

The minimum recorded annual rainfall was in 2015 at 620 mm and the maximum recorded was in 1893 at 1190 mm. The majority of rainfall is experienced in the winter between June and October with the driest months being January to March. In recent years whilst average rainfall has generally declined, it has increased in the autumn months of March to June.

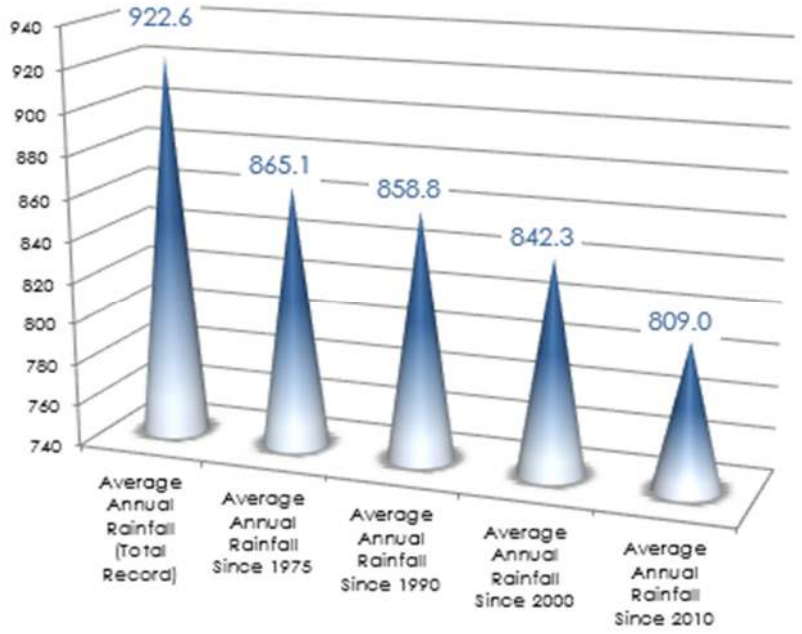


Figure 3: Rainfall trends analysis

The Bureau of Meteorology's Drought: Rainfall deficiencies and water availability issued 6 May 2025 notes that the south-coast of WA has observed severe or serious rainfall deficiencies (record low rainfall totals or in the lowest 5% or 10% of periods, respectively, since 1900) for the 25-month period since April 2023 which includes the last two southern cool seasons (URL Link).

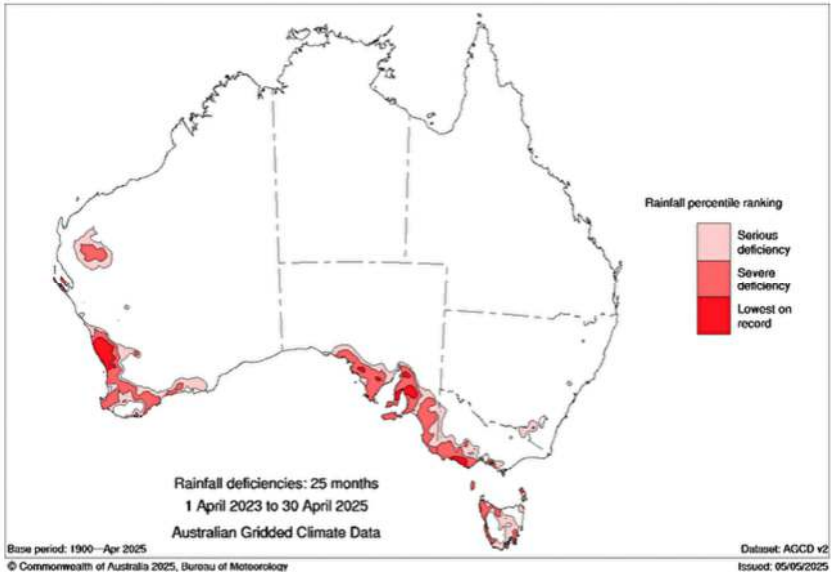


Figure 4: Rainfall deficiencies 1 April 2023 to 20 April 2025 (Source: BOM, 2025)

Future climate projections

In 2021 the Intergovernmental Panel on Climate Change (IPCC) released their sixth assessment report, concluding that:

- It is unequivocal that human influence has warmed the atmosphere, ocean and land.
- The likely range of total human-caused global surface temperature increase from 1850–1900 to 2010–201911 is 0.8°C to 1.3°C, with a best estimate of 1.07°C.
- Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO_2 and other greenhouse gas emissions occur in the coming decades.

These changes are likely to lead to:

- Declining rainfall and groundwater recharge – which reduces the sustainability of the use of groundwater resources and poses a serious threat to long-term water security.
- Reduced surface water streamflows and availability – leading to impacts on biodiversity and local water supplies
- Increased pressure on ecosystems – both in natural environments and those where abstraction is approaching or has exceeded sustainable limits.
- Rising demand and infrastructure stress – demand for water is increasing due to population growth and industry needs.
- Increased salinity and seawater intrusion risks – resulting from increasing sea levels in coastal areas and declining groundwater levels,

2.1.2 Topography, geology and soils

The landscape of the City of Albany is characterised by a mix of coastal plains, granite headlands, and undulating inland hills. Elevation ranges from sea level along the coast to approximately 225 metres at its highest inland points. Key topographic features include:

- Kardarup/Mount Melville and Corndarup/Mount Clarence, which rise steeply near the city centre and influence local drainage patterns.
- The Torndirrup Peninsula, a rugged coastal landform with dramatic cliffs and granite formations.
- Princess Royal Harbour and Mammang Koort/King George Sound, which are low-lying coastal basins that collect runoff from surrounding catchments.

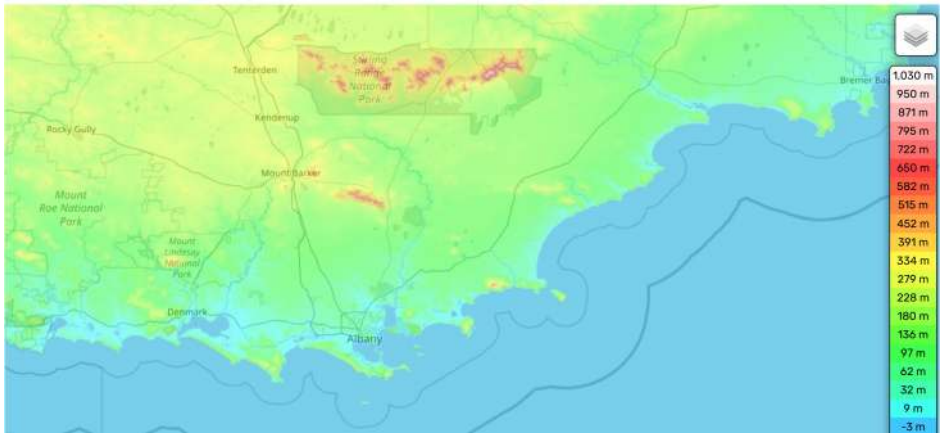


Figure 5: Topography

Available geological mapping from the Department of Energy, Mines, Industry Regulation and Safety (1:50,000 Geological series map - Albany (2427 I)) shows that Albany lies within the Albany–Fraser Orogen, a Proterozoic geological province composed primarily of granite and gneissic rocks. These ancient crystalline rocks form the backbone of the region's landscape and are exposed in features such as:

- The Gap and Natural Bridge in Torndirrup National Park, showcasing weathered granite cliffs.
- Stirling Range to the north, composed of metamorphosed sedimentary rocks, influencing regional hydrology and soil formation.

The geology also includes younger sedimentary deposits in coastal and alluvial areas, which are important for groundwater storage and filtration.

Soils in the Albany region are highly variable, reflecting the underlying geology and topography. Key soil types include:

- Lateritic gravels and sandy loams on uplands and ridges, often acidic and low in fertility.
- Duplex soils (sand over clay) in gently undulating areas, which can be prone to waterlogging and salinity.
- Peaty sands and organic-rich soils in wetland areas such as Tjuitgellong/Lake Seppings and Kiangadarup/Lake Powell, which support high biodiversity but are sensitive to hydrological changes.
- Calcareous sands along the coast, particularly near Binalup/Middleton Beach and Emu Point, which are well-drained but nutrient-poor.

These soil characteristics influence land use suitability, erosion risk, and water retention capacity.

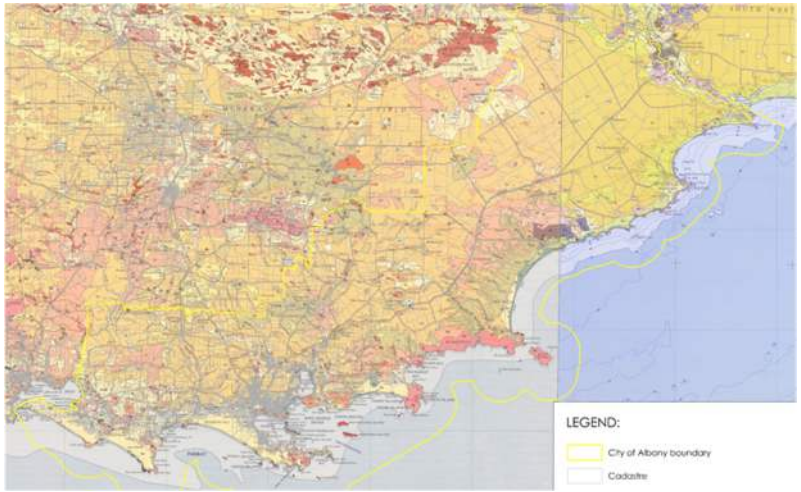


Figure 6: Geology

Acid sulfate soils

The DWER Acid Sulfate Soils (ASS) Risk Map does not cover the complete area of the City. However, where the data is available, it shows a high to moderate risk (Class 1 – red) of ASS occurring within 3m of natural soil surface in the low-lying areas in Miaritch/Oyster Harbour and Torbay Inlet. It also shows large areas with moderate to low risk (Class 2 – orange) of ASS occurring within 3m of natural soil surface associated with many creeklines across the City. ASS risk should be managed in accordance with DWER guidance available at https://www.wa.gov.au/service/environment/acid-sulfate-soils.

Contaminated sites

There are 85 contaminated sites listed on the DWER Contaminated Sites Database in the City. These sites have been classified as follows and, together with ASS risk, are shown on Figure 7 :

- contaminated - remediation required (22 sites)
- contaminated - restricted use (9 sites)
- remediated for restricted use (54 sites)

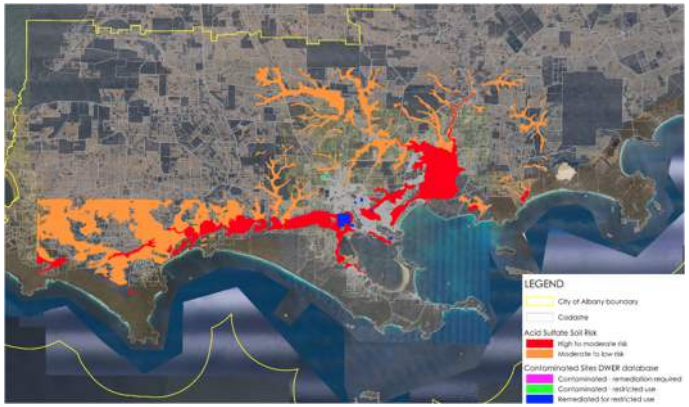


Figure 7: Acid sulfate soil risk and Contaminated sites

2.1.3 *Waterways and wetlands*

Rivers and watercourses are highly valued for recreational, cultural and landscape reasons, while wetlands often have cultural significance and high customary value for many Aboriginal people. Waterways and wetlands also provide important habitats for animals including some threatened fauna such as the Australasian Bittern.

The two largest river systems in the Albany townsite area are the Kalgan River and King River catchments, which both discharge into Miaritch/Oyster Harbour. Oyster Harbour, along with Princess Royal Harbour, is also a significant waterway within the City. The surface water catchments across the municipality are shown in Figure 8 and include:

- Beaufort Inlet/Pallinup River
- Bluff River
- Cordinup River
- Miaritch/Oyster Harbour, /Kalgan/King
- Eyre River
- King Creek
- Limeburner Creek
- McBrides Creek
- Menbijup/Moates/Goodga/Angove
- Mullocullop Creek
- Waychinicup River
- Norman River
- Princess Royal Harbour
- South Warriup Creek
- Yerringurrup/Willyung Creek
- Wilson Inlet
- Wilson Inlet/Denmark River
- Wilson Inlet/Hay River
- Yeerup/Torbay Inlet
- Wongerup Creek
- Coastal

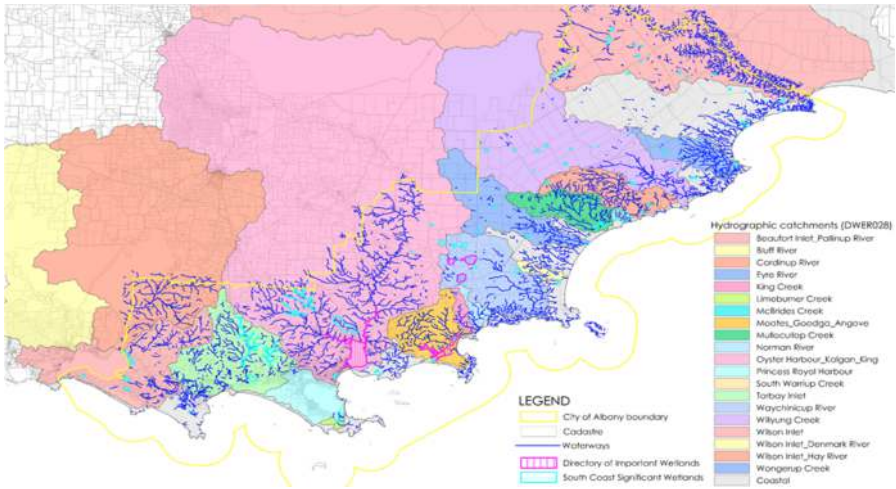


Figure 8: Waterways and wetlands

There are over 80 conservation category wetlands in the region. Some of the key wetlands in the City include:

- **Miaritch/Oyster Harbour**: A large estuarine system that receives water from both the King and Kalgan Rivers. It is a vital habitat for fish, birds, and other wildlife. Efforts have been made to enhance the wetland areas around the harbour to support biodiversity.
- **Tjuitgellong/Lake Seppings**: Located near the city centre, this freshwater lake is surrounded by a City of Albany managed reserve. It is an important site for birdwatching and supports a variety of wetland plants and animals.
- **Booyiup/Centennial Park Wetland):** A constructed wetland system that plays a vital role in improving water quality before it flows into Miaritch/Oyster Harbour. It diverts water from Yakamia Creek, using native plants and organisms to filter out nutrients and sediments. This project has significantly contributed to improved catchment health.

- **Wetlands of the Torbay Catchment:** These wetlands are important for water management, habitat and cultural values. They include coastal lakes, basin wetlands, palusplains (wide, flat areas of seasonal waterlogging), and hillside seeps (paluslopes). These wetlands are important for water management, habitat, and cultural values.
- **Lake Vancouver:** Situated near Goode Beach, Lake Vancouver is identified as a conservation category wetland. It is a significant natural feature requiring ongoing management to protect its ecological values.
- **Muir-Byenup System (partially within the Albany region):** While primarily located in the Shires of Manjimup and Cranbrook, this Ramsar-listed wetland system extends into the broader Albany region. It is an internationally important site, comprising interconnected lakes and swamps of varied sizes and salinities. It is particularly important for moulting and drought refuge for thousands of Australian Shelducks and other waterbirds.
- **Wilson Inlet:** The City boundary is defined by Hay River and Wilson Inlet to the west and Pallinup river in the east.

The Ballogup/Lake Pleasant View System, Miaritch/Oyster Harbour, and Menbijup/Moates Lake System are also listed in the Directory of Important Wetlands in Australia.

Public drinking water source areas

Public Drinking Water Source Areas (PDWSAs) within the City are declared under the *Country Areas Water Supply Act 1947*. These areas are important as they provide protection for water resources that provide public drinking water supplies. They are either surface water sources, usually the catchment areas that feed dams and reservoirs, or groundwater sources associated with aquifers accessed by bores.

PDWSAs are divided into priority areas (P1, P2, P3) to guide land use planning and control activities within them. The designation is associated with different levels of protection:

- P1 (Priority 1): Highest level of protection, aiming for risk avoidance, typically in state-owned land with low-intensity land use.
- P2 (Priority 2): High priority for protection, aiming for risk minimization, allowing conditional development.
- P3 (Priority 3): Manage the risk of pollution where water sources coexist with other land uses, with restrictions on highly polluting activities.

There are a number of PDWSAs within the City, as shown in Table 1.

Table 1: PDWSAs within the City of Albany

Priority	Name	Resource
P1 & P2	Angove Creek Catchment Area	Surface water
P1	Limeburners Creek Catchment Area	Surface water
P1, P2 & P3	Marbellup Brook Catchment Area	Surface water
P1, P2 & P3	South Coast Water Reserve	Groundwater

PDWSAs are also shown as Special Control Areas on the City's Local Planning Scheme and are associated with additional planning controls.

Further information on Public Drinking Water Source Areas can be found at: https://www.wa.gov.au/service/natural-resources/water-resources/public-drinking-water-source-areas.

The location of public drinking water source areas in WA can be viewed using the DWER online mapping tool.

2.1.4 Groundwater

The groundwater resource is managed by DWER under the *Rights in Water and Irrigation Act 1914*.

The most significant groundwater resource for the Albany region is found in the sedimentary aquifers of the Eucla Basin which extends along WA's southern coastline. The Karri groundwater management area covers the majority of the municipality, with the Albany townsite located within the Albany Groundwater Area (Figure 9).

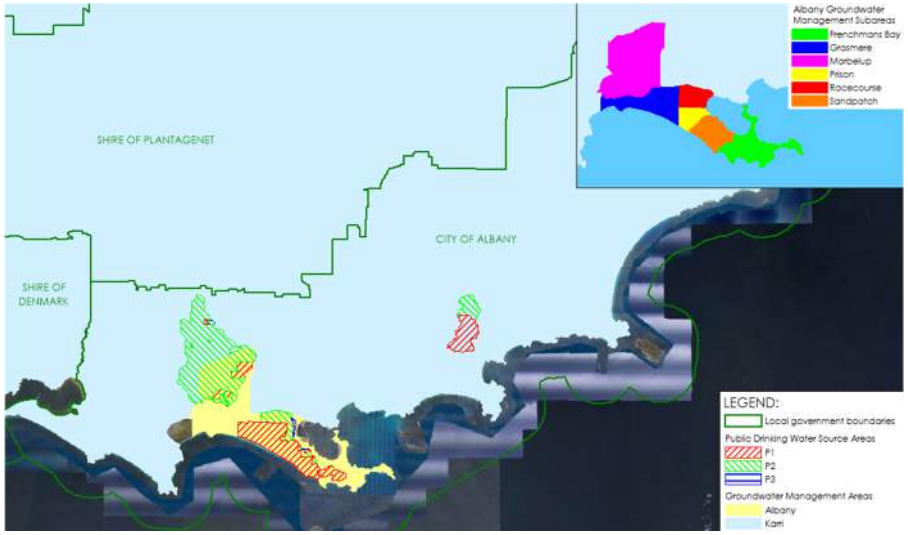


Figure 9: Groundwater management areas and PDWSAs

The Albany Groundwater Area was proclaimed in 1973 (and extended in 1975 and 1979) and accordingly, the taking and using of groundwater within this specific area is regulated and generally requires a licence.

Within the Albany Groundwater Area, the key aquifers are:

- Superficial Aquifer: This is the shallowest, unconfined aquifer. It is the primary source of water for private use, such as horticulture, industry, and stock and domestic use (e.g., garden bores). These are often directly influenced by rainfall recharge.
- Sedimentary (Confined): This aquifer lies beneath the Superficial aquifer and is confined, meaning it is under pressure and separated by confining layers that restrict vertical water movement.
- Fractured Rock: This aquifer lies beneath the sedimentary aquifer in some locations and is a fractured rock aquifer where water availability is less predictable.

The aquifers in the Albany Groundwater Area are separated into six management units (subareas): Frenchman Bay, Grasmere, Marbelup, Prison, Racecourse and Sandpatch (Figure 9). At the time of preparation of this strategy, some allocation remains in the superficial aquifer in some of the subareas.

The current availability of water for allocation should be viewed via the DWER *Water Register (https://maps.water.wa.gov.au/#/webmap/register)*.

In addition to the proclaimed groundwater resources, there are also localised fresh to brackish paleochannel resources in the Albany hinterland (unproclaimed area), which can provide small amounts of water for stock, domestic garden, firefighting, agriculture and process industries. For more information contact DWER.

Key water resource challenges

The waterways, wetlands and groundwater resources in the City of Albany face several key challenges which include:

- **Climate change -** Climate change is having a profound impact on waterways and wetlands. Increased temperatures, altered rainfall patterns, and more frequent extreme weather events can lead to changes in water availability, increased evaporation rates, and more intense and frequent flooding.
- **Altered flow regimes -** Changes in the natural flow regimes of rivers and streams can disrupt ecosystems. This can be due to water extraction, damming, and land use changes, which affect the availability and quality of water for aquatic habitats.
- **Urban development -** Urbanisation leads to increased impervious surfaces, which can result in higher runoff volumes and reduced groundwater recharge. This can cause erosion, sedimentation, and pollution in waterways and wetlands.
- **Water allocation and management -** Effective water allocation and management are essential to balance the needs of different users and protect the ecological health of waterways and wetlands. The Albany and hinterland water allocation plan aims to manage and protect water resources in the wider region.
- **Groundwater quality -** Water quality in the Albany groundwater area is protected from contamination by managing land uses and associated activities. However, pollution from agricultural runoff, industrial activities, and urban stormwater can still pose significant threats to groundwater quality in other areas.
- **Surface water quality -** Agricultural runoff, industrial activities, and urban stormwater can impact on the quality of surface water in wetlands and waterways. Impacts include sedimentation and eutrophication which can lead to algal blooms, as well as litter and rubbish.
- **Invasive species -** Invasive plant and animal species can outcompete native species, disrupt ecosystems, and degrade habitats. Managing these species is crucial to maintaining the health of waterways and wetlands.
- **Community awareness -** A lack of community awareness of water sensitive urban design and sustainable water management practices can result in unintended impacts on water resources from overuse, inappropriate access and activities that result in pollution.

2.1.5 Vegetation

The City of Albany contains a diverse range of vegetation complexes and types, as well as protected flora, fauna, and ecological communities. As this will be addressed comprehensively in the City's Local Biodiversity Strategy, only a brief summary is provided below for context purposes.

Broadly, the City's vegetation types include:

- Coastal heath and shrublands: Characterised by low-growing shrubs and heathland species, often found on sandy soils near the coast. Includes banksia, hakea, and various acacia species.
- Eucalyptus woodlands: Dominated by Eucalyptus trees, these woodlands are found in both coastal and inland areas. Key species include *Eucalyptus marginata* (Jarrah), *Eucalyptus diversicolor* (Karri), and *Eucalyptus gomphocephala* (Tuart).
- Wetlands and riparian vegetation: These areas are associated with rivers, creeks, and wetlands, supporting a variety of water-dependent plants. Key species include melaleuca, juncus, and various sedges.
- Granite outcrop vegetation: Unique vegetation communities found on and around granite outcrops, often with specialized flora adapted to the harsh conditions. Includes species such as *Allocasuarina huegeliana* and various endemic orchids.

2.2 Cultural and heritage values

The City of Albany has rich cultural and heritage values associated with its water resources. These values are entrenched in the history, traditions, and practices of the local Noongar people, as well as the European settlers who followed.

2.2.1 Indigenous Heritage

The City of Albany is situated in the Wagyl Kaip and Southern Noongar region of Noongar boodja (country). The Noongar people, particularly the Menang group, have a profound connection to the land and water, which is reflected in their cultural practices, stories, and heritage sites.

Waterways and wetlands are considered sacred and are integral to the spiritual and cultural life of the Noongar people. They feature in creation stories and are used for traditional practices such as fishing, hunting, and gathering.

There are over 40 registered Aboriginal heritage sites and over 85 other heritage places in Albany (Figure 10). These include artefact scatters, mythological sites, engravings, food, and ceremonial sites. Significant sites include the Kalgan River, and Miaritch/Oyster Harbour, which has historical significance for its use in traditional fishing practices.

Figure 10: Heritage sites

2.2.2 European Heritage

Albany is the oldest permanent settlement and commercial seaport in Western Australia. The city's historic heritage includes sites of early European settlement, military, and maritime history.

With regards to water supply infrastructure, the Albany Deep Water Jetty and associated ponds were crucial for providing fresh water supplies to ships and steam locomotives in the late 19th century. The Albany Fish Ponds (Figure 10) were listed on the State Heritage Register in 2000 and classified by the National Trust in 2001.[1]

[1] https://inherit.dplh.wa.gov.au/public/inventory/printsinglerecord/8dfa74e8-9d85-4831-9c11-44dbc8c3ecc8

Albany also holds national significance as the departure point of the first convoy of the First Australian Imperial Force and the First New Zealand Expeditionary Force, collectively known as the ANZACs. The National Anzac Centre and various memorials around Albany commemorate this important aspect of the city's history.

2.3 Water infrastructure and services

2.3.1 Water

The Albany townsite is serviced by a reticulated water supply system that provides potable water to residents and businesses (Figure 11). This system is managed by the Water Corporation and the water supply comes from a combination of groundwater sources and surface water catchments (Angove Creek).

As noted in the previous section, the Albany region has experienced significant decreases in rainfall, impacting traditional groundwater and surface water sources. Coupled with population and economic growth, it has been recognised by the State Government that a new, climate-resilient water source is required by around 2030.

The Water Corporation is actively investigating a range of options for the Lower Great Southern Towns Water Supply Scheme (which supplies Albany, Mount Barker, Kendenup, and Denmark).

These include:

- New groundwater sources: Investigations are underway in areas like Manypeaks and Angove, which appear hydrogeologically promising and are close to existing infrastructure.
- Seawater desalination: This is considered a proven, sustainable, and reliable climate-independent source. The Water Corporation is engaging the community and conducting marine investigations for potential desalination plant locations.

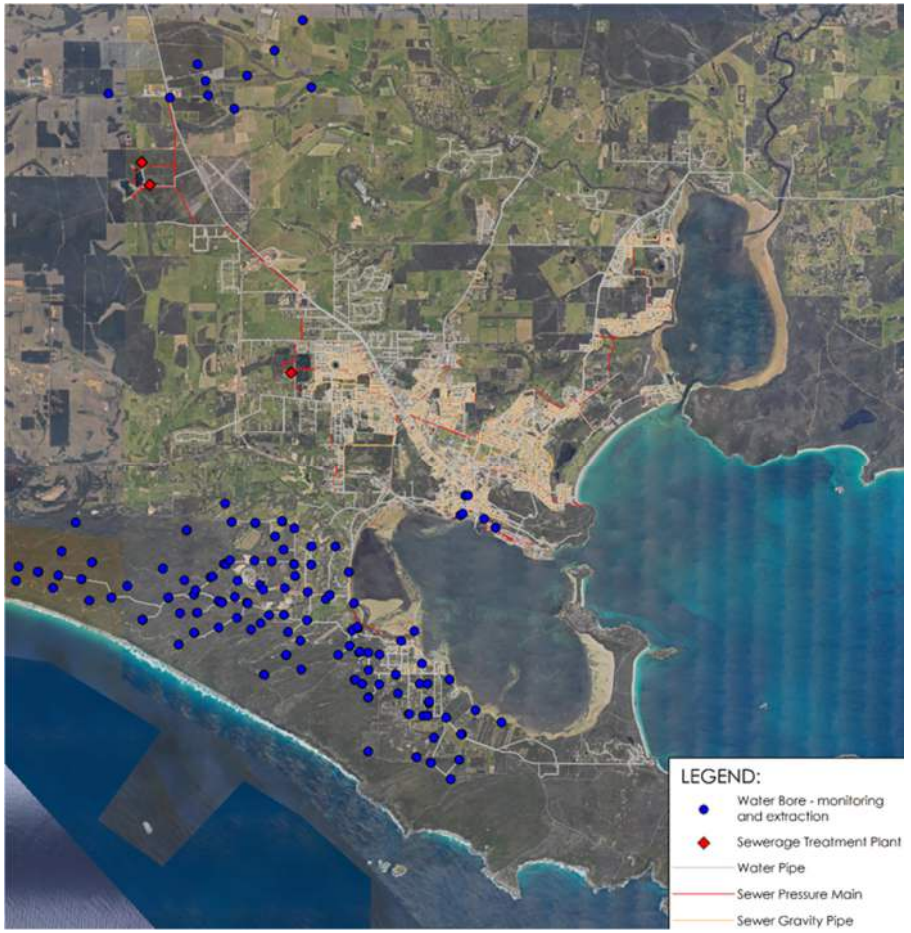


Figure 11: Water and wastewater services

Public open space irrigation

The City of Albany maintains numerous parks and gardens, which are irrigated using a combination of recycled water, groundwater and scheme water. The City only has one licenced bore (GWL 204097 for 1,624kL), however this source is not currently utilised due to a lack of yield.

The City is continuing its program of improving efficiency via centralised irrigation system control (which reduced water use in public open space by 20% between 2016 and 2020) to include a predictive watering feature that stops irrigation under certain pre-set conditions. The irrigation team undertakes monthly and annual irrigation inspections to ensure systems are operating efficiently in accordance with the levels of service outlined in the Developed Managed Space (Parks & Gardens) Policy (2024).

The City is also completing the staged Albany Waterfront Irrigation Supply upgrade. This project includes the identification of best practice technology and equipment to facilitate use of stormwater to replace the use of scheme water at the Museum of the Great Southern, Mutenup/Foundation Park, and Lawley Park. It is anticipated that these projects will reduce scheme water use by around 2,500kL, 7,200 kL, and 3,400kL respectively per annum.

2.3.2 *Wastewater*

The Albany townsite has access to a reticulated sewerage network run by the Water Corporation. The wastewater is collected and treated at the Timewell Road Wastewater Treatment Plant which provides secondary treatment of the wastewater to reduce the potential environmental impact on local water bodies such as Princess Royal Harbour. The treated wastewater is then piped and irrigated onto trees at a designated land disposal site on the outskirts of Albany.

For properties not connected to the reticulated sewerage scheme, on-site wastewater treatment systems are used. The City is responsible for approving the installation of domestic systems, while the Department of Health approves larger systems. Guidance is provided in State Planning Policy 2.9: Water (WAPC, 2025) and SPP2.9: Planning for Water Guidelines (WAPC, 2025).

2.3.3 *Drainage*

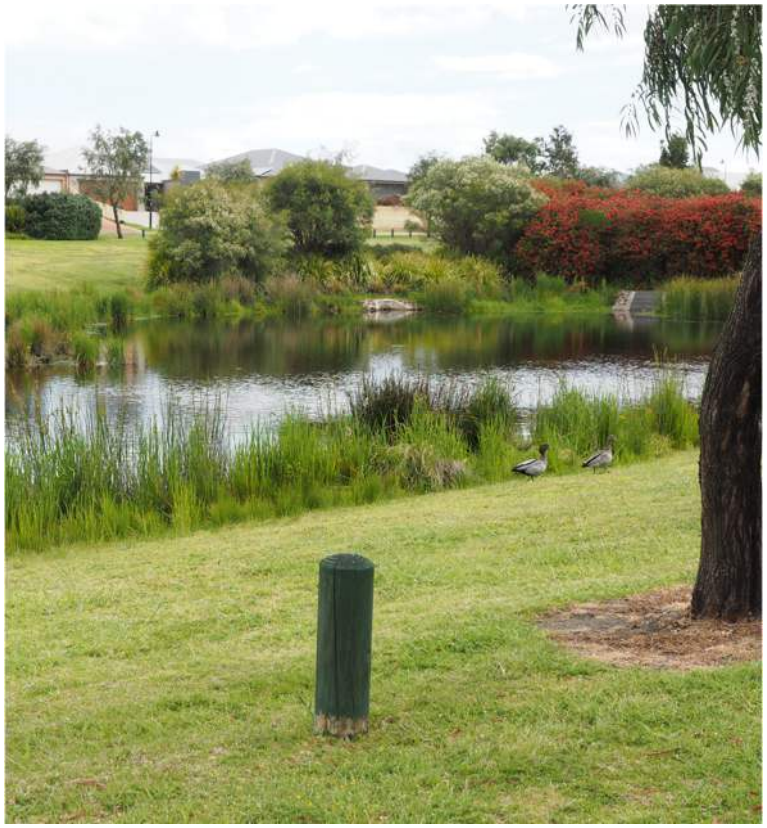
The City of Albany maintains a comprehensive drainage network, including pipes, street drains, and gullies, to collect and convey stormwater. As the oldest permanent European settlement in WA, the Albany townsite still contains cut stone and brickwork drains that were constructed over a century ago. While these drains may now be undersized, care should be taken to retain the historic values in any upgrades that are required.

The City supports the implementation of water sensitive urban design as outlined in *State Planning Policy 2.9: Water* (WAPC, 2025) and *Better Urban Water Management* (WAPC, 2008). The City's website notes that large subdivisions should be supported by an urban water management plan, as should small subdivisions in priority catchments or where there are significant risks to water resources. This plan should be undertaken instead of the conventional drainage and nutrient management plan.

The City assesses land development proposals using its Subdivision & Development Guidelines (2018) and requires easements for drainage to be created to ensure access is possible for maintenance and to control the potential for flooding to impact neighbouring properties. Subdivisions are to be in accordance with IPEWEA's Local Government Guidelines for Subdivisional Development 2017 and the City's addendum to it.

Due to varying soil types and increased hard surfaces from urban growth, the City may require on-site stormwater detention for smaller developments. The City's Stormwater Detention on Your Property information sheet (2018) suggests that roof and paved areas are typically required to be piped to a detention system connected to the street drainage system and proposes a required storage volume of 0.5m³ per 100m² of impervious area.

The City also undertakes regular maintenance, such as sweeping roads and cleaning gullies (drains), to reduce the buildup of leaf litter and debris.



2.4 What does the community value?

The City undertook a range of engagement activities with the community as part of preparation of its *Strategic Community Plan 2032*. This included an independent review of the community's priorities.

It is noted that of the 43 community priorities identified, the five environmental priorities ranked higher than average, with natural disaster management, and sustainability and climate action two of the top seven priorities (Figure 12).

As part of the development of this Strategy, the City undertook a targeted survey of the community's perceptions about water resources. Seventy-four responses were received from residents of 29 suburbs.

When asked "What does a waterwise future for our community look like to you?", the main themes were:

- Sustainable water use, and conservation
- Environmental protection and biodiversity
- Community awareness and education
- Climate resilience and adaptation
- Equity and accessibility

Secondary themes were innovative urban planning, and quality of life and wellbeing.

With regard to water resources in Albany, the community valued water as a place to connect with nature, provide biodiversity, supporting areas for recreation, greening and cooling. They wanted to see local waterways protected and have access to long-term safe and secure water supplies. They were also supportive of the City working to restore waterways and wetlands, expanding its use of recycled water and increasing urban greening.

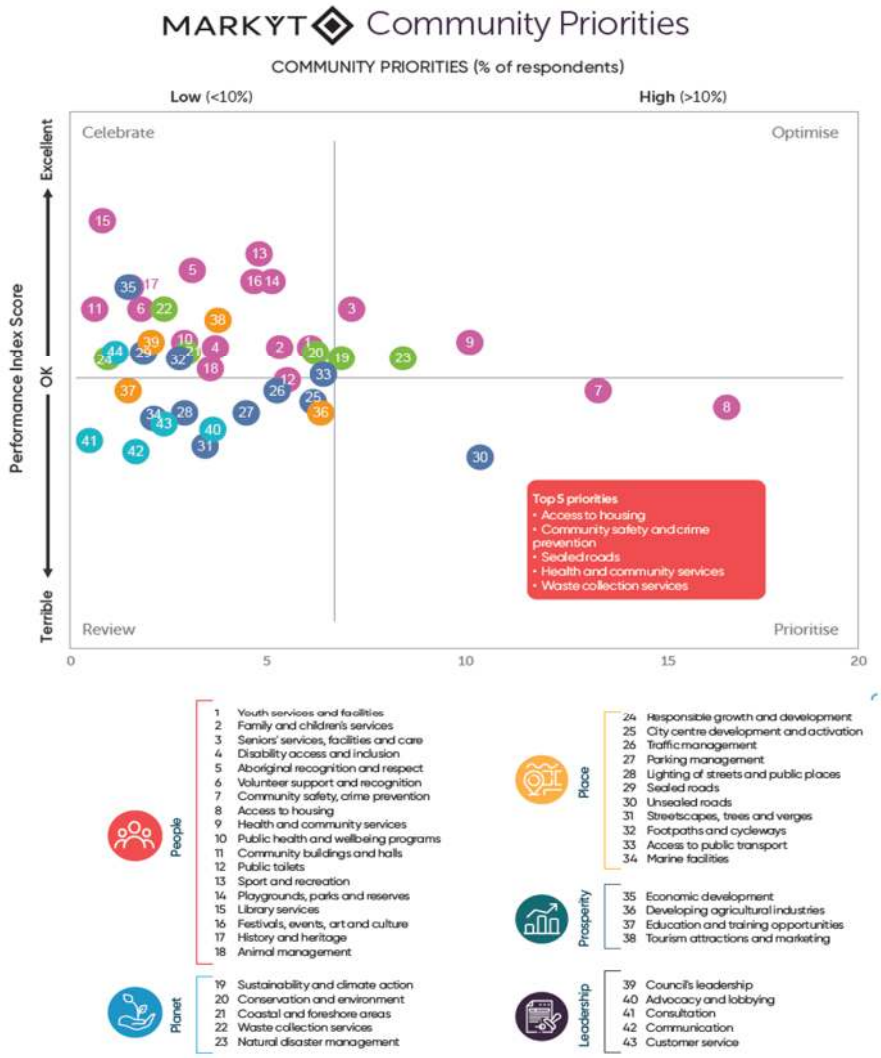


Figure 12: Priority areas as ranked by the City of Albany community (Source: City of Albany Strategic Community Plan)

They felt that the biggest water challenge affecting the community was the impact of climate change. Other challenges included pollution of local waterways, water shortages/restrictions and a lack of awareness of water conservation.

Photo credit: Alex Gott-Cumbers

2.5 The City of Albany's water journey

The City of Albany has had a long commitment to the effective management of water resources. The timeline of significant activities is below.

- 2014: The City first made a commitment to improving water efficiency and the establishment of a Water Efficiency Management Plan
- 2015: Signed a Memorandum of Understanding with the Water Corporation and Department of Water and Environmental Regulation following a water audit of the Albany Leisure and Aquatic Centre as part of the process to achieve Waterwise Aquatic Centre endorsement
- 2016: Endorsement as Waterwise Council
- 2017: Stormwater management strategy and arterial drainage planning
- 2020: Gold Waterwise Council Action Plan submitted
- 2021 – 2024: Gold Waterwise Council re-endorsement, including ongoing activities of the City's water management team, water audit program, and installation of water meters.
- 2022: Water Sensitive Cities Index benchmarking workshop and report
- 2023: City of Albany Waterfront irrigation upgrade Stage 1
- 2024: ALAC 5-year report and Gold Waterwise Council Action Plan submitted November
- 2025: Preparation of a City of Albany Waterwise Strategy

2.5.1 WSC Benchmarking workshop results

The City applied the Cooperative Research Centre for Water Sensitive Cities' (CRCWSC) Water Sensitive City Index benchmarking tool at a workshop in 2022. A comparison on the results with the re-benchmarking of Greater Perth in 2021 (Figure 13) shows that in 2022, the City scored higher than Greater Perth in all goal areas except Goal 1: Ensure good water sensitive governance.

The Ten-Point action plan that was developed in response to the benchmarking results proposed the following actions:

- Action 1: Build a clear Vision for a Water Sensitive Albany.
- Action 2: Strengthen integration and collaboration across the City to increase understanding of SPP2.9 guidelines and encourage implementation of WSUD.
- Action 3: Build on relationships with the education sector to increase water management skills and knowledge in a practical setting.
- Action 4: Foster community engagement, collaboration and ownership of a water sensitive city.
- Action 5: Establish policies to encourage uptake of lot-scale best practice water management in rural fringes of the City.
- Action 6: Investigate opportunities to improve water quality by working with light industry to improve site management practices.
- Action 7: Drainage retrofit opportunities.
- Action 8: Increase vegetation coverage in urban streets.
- Action 9: Lobby for better funding of maintenance and renewal of ageing wastewater infrastructure.
- Action 10: Investigate ways to incentivise better management of wetlands and waterways in private ownership.

This Waterwise Strategy fulfils Action 1 and will assist in delivering the remaining actions.

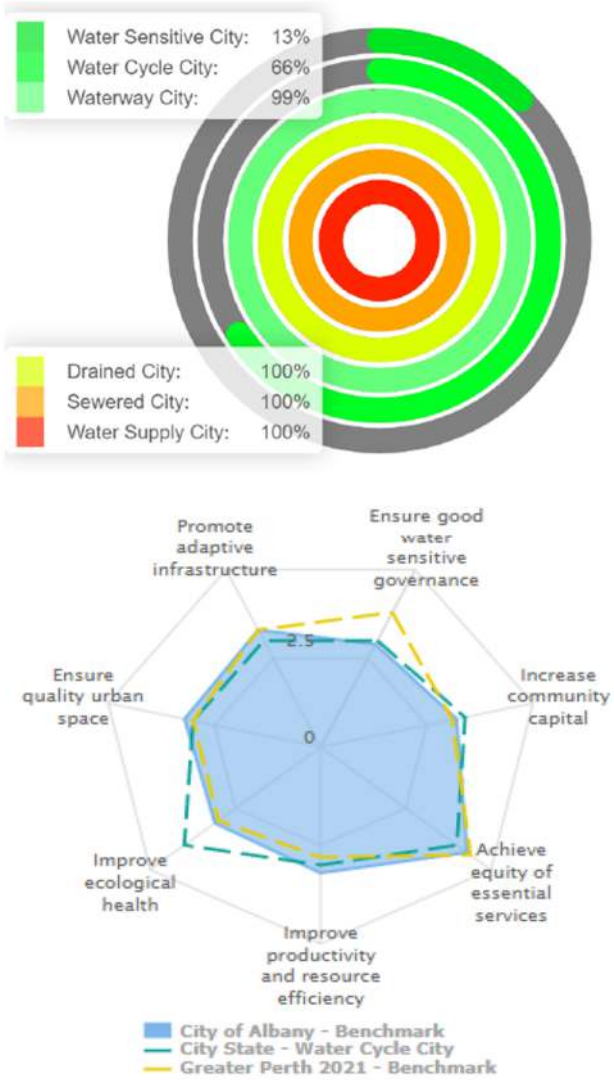


Figure 13: City of Albany 2022 benchmarking results and comparison with Greater Perth 2021 scores.

2.5.2 Community education and participation

The City also partners with other stakeholders and the community to deliver improved water resource management outcomes. This includes catchment and bushcare groups to support revegetation activities, as well as infrastructure to reduce the impact of litter such as Containers for Change and Reel It In bins.

The City also supports the Water Corporation's Waterwise Showerhead Swap program, waterwise garden and verge demonstrations, and promotes local planting lists which include waterwise plants (see Local Plant Species Recommended for Waterwise Verge Gardens).

2.6 Challenges and opportunities

The City faces a complex array of challenges and opportunities in managing its water resources. A primary challenge is adapting to climate change impacts, which manifest as altered rainfall patterns, increased temperatures, more frequent and intense extreme weather events, sea level rise, and associated salinity issues. This directly impacts water availability, recharge rates, and surface water flows, while also increasing drought and fire risks.

Urban development further exacerbates these issues by increasing impervious surfaces, leading to higher stormwater runoff, reduced groundwater recharge, and increased erosion, sedimentation, and pollution of waterways. The City also contends with the need to upgrade ageing drainage infrastructure, often constrained by limited resources and fragmented land ownership.

Water quality degradation remains a significant concern, with both groundwater and surface waters vulnerable to contamination from agricultural runoff, industrial activities, and urban stormwater. Ecologically, altered flow regimes, the spread of invasive species, and general pressure on

natural areas due to changing land use pose threats to the health of aquatic ecosystems, complicated by the City's limited control over entire catchments. Furthermore, governance and community engagement present challenges in balancing competing water demands, overcoming community awareness gaps regarding sustainable practices, and aligning priorities among various stakeholders.

Despite these hurdles, the City has several key opportunities to enhance its water management. These include strengthening strategic planning and governance through integrated approaches and protecting heritage drainage systems. There is significant potential to enhance collaboration and partnerships with neighbouring local governments, State agencies, and community groups to leverage resources and expertise.

A major opportunity lies in the comprehensive implementation of Water Sensitive Urban Design (WSUD), developing Albany-specific approaches, providing clear guidance and policies, showcasing best practices in public spaces, and integrating natural solutions with engineered systems. Promoting sustainable water use and resource efficiency is also vital, through investigating alternative water sources (like stormwater harvesting and greywater reuse), encouraging water-wise landscaping, and continuously monitoring usage. Finally, improving community engagement and education is crucial for fostering greater awareness of water issues, promoting water-wise behaviours, and enabling more effective community participation in water management decisions.

3 WATERWISE STRATEGY

The following objectives, strategies and actions are proposed to achieve the City's Vision for water management. They respond to the key environmental conditions and challenges and opportunities outlined in the previous section.

The Vision and Objectives will be achieved in the short to medium term through the Implementation Plan in Section 4, which will be updated on a regular basis.

3.1 Vision

The Vision for this strategy is:

Working together to protect and manage our water resources and landscapes to create a sustainable future for all.

3.2 Outcomes

The Outcomes of this strategy are:

1. **Enhanced waterways and biodiversity** – Waterways and biodiversity are protected and restored through revegetation, sustainable access, and improved catchment management.
2. **Resilient and water sensitive urban design** – Drainage and flood management practices create climate-resilient, attractive, and functional spaces for people, plants and animals.
3. **Sustainable irrigation and green spaces** – Public spaces are sustainably irrigated, enhancing urban greening, canopy cover, and community wellbeing.
4. **Optimised wastewater management** – Wastewater is managed effectively to protect receiving environments and maximise reuse opportunities.
5. **Empowered waterwise communities** – Communities are engaged and supported to adopt water sensitive behaviours and care for water resources.
6. **Leadership in sustainable water management** – Water management practices enhance resource efficiency, service delivery, and support equitable access for all.

3.3 Water management strategies and actions

The following priority strategies and actions should be implemented as part of future operational activities, land use planning and development to meet the outcomes of this Waterwise strategy and have been incorporated into an Implementation Plan (see section 4).

Outcome 1: Waterways and biodiversity are protected and restored through revegetation, sustainable access, and improved catchment management.

Key challenges: Large parts of the catchments and landscapes are not under local government control, with significant areas held by State agencies and private landholders. This can make it difficult for the City to deliver strategic outcomes. The City's natural areas are under pressure from climate change, changing land use, lack of management and inappropriate use including environmental vandalism (such as unauthorised access tracks). There are often competing priorities across the community and government, which can lead to a lack of available resources for restoration and limited capacity for on-ground action.

Key strategies and actions required to achieve outcome 1 are:

1. **Develop a strategic platform that supports the protection and enhancement of biodiversity and waterways across the City.**

    1.1. Implement the City's Local Biodiversity Strategy to provide an overarching platform to guide coordinated action.
    1.2. Consider development of targets for catchment protection, restoration and management at an individual catchment level.

2. **Enhance partnerships and support coordinated activities by other organisations and the community to restore biodiversity and waterway health.**

    2.1. Work with neighbouring local governments to develop a coordinated approach to address upstream and downstream impacts including aligned solutions.
    2.2. Provide resources for ranger activities.
    2.3. Host information sharing/educational opportunities for the community on good practice management of private waterway foreshores and the impact of environmental vandalism. Consider partnerships with State Government organisations.
    2.4. Assist community groups to access funding for restoration activities.
    2.5. Hold planting days to increase community involvement and knowledge.
    2.6. Promote information available for firewise planting and work with the Department of Fire and Emergency Services and the Department of Planning, Lands and Heritage to coordinate activities and optimise outcomes.

Outcome 2: Drainage and flood management practices create climate-resilient, attractive, and functional spaces for people, plants and animals.

Key challenges: There is a need to balance engineered solutions with nature-based approaches that support biodiversity and amenity, such as biofilters, constructed wetlands and vegetated swales. Constraints include ageing infrastructure, limited resources for upgrades, and a lack of integration between urban planning, water management, and ecological design. Land tenure and fragmented ownership can hinder coordinated action, especially where drainage systems cross multiple property boundaries. Public expectations and perceptions also need to be managed, as some communities may prioritise short-term convenience or aesthetics over long-term resilience. Education and engagement will be critical to build support for sustainable, multi-functional drainage solutions.

Key strategies and actions required to achieve outcome 2 are:

3. Create an Albany-specific approach to the design and delivery of water sensitive urban design that is responsive to landscape and the impacts of climate change.

3.1. Share information about locally relevant issues with implementation of WSUD across the local planning and development industry and provide a platform for interrogation and discussion. Hold a bus tour and forum for industry that showcases examples of WSUD solutions delivered over the past five years and facilitates constructive discussion of opportunities and constraints.

3.2. Work across the organisation to understand the locally relevant preferences for design, construction and maintenance of WSUD assets across the range of urban landscapes and typologies. Develop appropriate guidance to clarify requirements and outcomes.

4. Develop guidance to support delivery of WSUD solutions for local contexts and conditions and support with policy/regulation where required.

4.1. Develop a local planning policy and/or guidelines for the City to highlight local conditions that require site-specific solutions and locally relevant application of *State Planning Policy 2.9: Water* (WAPC, 2025) and ensure planning applications are supported by appropriate water management information. This includes guiding location and function of public open space during structure planning.

4.2. Develop a hierarchy of stormwater management solutions that clarifies the types of access and vegetation treatment required (including maintenance) for drains and waterways that considers environmental and community benefit. This information should be incorporated into a spatial plan that defines the waterways the City wants to manage, particularly in areas undergoing development.

4.3. Share examples of WSUD solutions supported by the City to help inform designs by the development industry and acceptance by the community. Emphasise how WSUD mitigates flood risk, rather than increasing it, as perceived by some local residents.

4.4. Include Albany's heritage drainage system (stone-lined drains) on the City's Heritage register to provide protection particularly in redevelopment areas.

4.5. Enhance monitoring programs and develop tools to provide protection against unauthorised filling of floodplains and waterway foreshores which can compromise flood storage and water quality.

Outcome 3: Public spaces are sustainably irrigated, enhancing urban greening, canopy cover, and community wellbeing.

Key challenges: Water availability and long-term climate variability pose significant challenges to the achievement of urban greening and high-quality public spaces. This is likely to require efficient irrigation systems and the continued use of alternative water sources such as stormwater harvesting or possibly treated wastewater to reduce reliance on scheme water. Consideration will need to be given to infrastructure limitations and the often-higher costs of retrofitting or expanding irrigation networks. It is also important to ensure use of locally appropriate, drought-tolerant plant species and planning for long-term maintenance. Additionally, understanding community expectations and engaging the public in the value of urban greening should help build support for waterwise initiatives. Coordination across City departments and with external stakeholders will also be essential to integrate public open space planning with broader urban design, environmental management, and community and environmental health outcomes.

Key strategies and actions required to achieve outcome 3 are:

5. Reduce reliance on scheme water.

5.1. Investigate opportunities for alternative water sources for irrigation based on local characteristics (i.e., stormwater, groundwater, greywater) where scheme water is currently being used.
5.2. Minimise water intensive vegetation and promote use of locally native, waterwise species and hydrozoned and efficient irrigation systems.
5.3. Support innovation and new technology to optimise irrigation system performance.

6. Understand and respond to community expectations for green spaces.

6.1. Increase visibility of water sources used for irrigating public spaces including the planning undertaken to address the impacts of climate change (i.e., reduced access to water and increased heat) to enhance knowledge within the community regarding the diversity of sources and sustainability practices used by the City).
6.2. Provide an opportunity for the community to participate in discussions about any future changes in public space required because of reduced access to water for irrigation.

7. Ensure design and delivery of green space is appropriate to local climate, urban context and water availability.

7.1. Consider location for future public open space at structure plan stage and provide guidance on form, function and irrigation needs.
7.2. Develop guidance on locally appropriate waterwise public open space design including principles for designing water bodies for community enjoyment and species to be used in landscaping.
7.3. Develop guidance for better park designs as part of renewal.
7.4. Demonstrate best practice design of public open space, streetscape and drainage through the City's development at McAlpine Rise. Create case studies and examples as appropriate.

8. Continue to share knowledge and develop tools to embed best practice irrigation and sustainable management techniques, including opportunities for continual improvement.

8.1. Continue to monitor and report on water usage.
8.2. Complete and implement the City's Urban Forest Strategy and include targets for City-managed lands and requirements for new development areas.

Outcome 4: Wastewater is managed effectively to protect receiving environments and maximise reuse opportunities.

Key challenges: There are many locations within the City of Albany that do not have access to reticulated sewer. In these areas, it is standard practice for wastewater to be managed on the site. This provides an opportunity for local treatment and reuse in a fit-for-purpose manner but also may increase risks of discharges to the environment, particularly where systems are not effectively managed.

Maximising reuse, such as for irrigation or industrial applications, is dependent on the location, magnitude and quality of available sources, and its financial feasibility is dependent on the costs associated with treatment and transport. It also requires an understanding of regulatory frameworks, public health safeguards and community acceptance, as well as appropriate governance frameworks and funding for ongoing monitoring and maintenance.

Key strategies and actions required to achieve outcome 4 are:

9. Bring champions together to develop a shared understanding of the opportunities to improve management of wastewater at all scales and support further demonstration projects.

9.1. Hold a forum/showcase of local technologies for wastewater reuse that are appropriate at a range of scales and conditions.
9.2. Consider further opportunities for stormwater harvesting to support irrigation of public spaces.
9.3. Develop a pilot or demonstration site for rainwater collection and supply to toilets, as well as on-site wastewater management and reuse. Consider inclusion of a rainwater tank plumbed to toilets in development guidelines and a greywater system in landscape packages for the City's development at McAlpine Rise.

10. Share information about existing projects and locally relevant opportunities to improve wastewater management and reuse.

10.1. Audit the performance of on-site wastewater management systems, targeting areas in proximity to important environmental assets and the light industrial area and provide recommendations for improved outcomes where necessary.
10.2. Educate the community on the various types of treatment technologies and best practice management. Consider development of fact sheets and/or community events and expansion on the City's planning "one-stop-shop" to help with wastewater information.
10.3. Provide incentives for greywater reuse and promote the Water Corporation's rainwater tank rebate program.

Wastewater treatment system at the National Anzac Centre
Image: frances andrijich photography

Outcome 5: Communities are engaged and supported to adopt water sensitive behaviours and care for water resources.

Key challenges: The general community often lacks awareness of the impacts their actions have on local waterways and may not have access to clear, locally relevant information about how to reduce water use or prevent pollution. Behaviour change is often hindered by entrenched habits, misinformation, and a sense that individual actions have limited effect. The City must also navigate diverse community values and priorities, including cultural connections to water and differing levels of capacity to participate in stewardship activities. Building trust and sustained engagement requires tailored communication strategies, strong partnerships with schools, community groups and Traditional Owners, and visible, on-ground initiatives that demonstrate positive outcomes. Providing opportunities for hands-on involvement, recognising community contributions, and ensuring people feel empowered rather than blamed will be essential for long-term success.

Key strategies and actions required to achieve outcome 5 are:

11. Empower aligned and influential champions with strong platforms that build support for best practice community engagement, knowledge sharing and behaviour change.

11.1. Continue to support community groups to deliver improved water management outcomes.
11.2. Consider incentives to improve management of privately owned waterways and wetlands.
11.3. Support Elected Members, senior executives and managers to understand the City's water resource context and the actions that can be taken to improve outcomes. This may include annual or biennial site visits to showcase good practices and outcomes.

12. Develop guidance to build capacity and empower actions by individual businesses and homeowners

12.1. Develop guidance on locally relevant ideas for simple home interventions such as downpipe diversions into raingardens and promote through the City's media channels.
12.2. Share information (possibly via a story map) with the community about the complex management of water resources across the City including clarifying roles and responsibilities of the City, Water Corporation and Department of Water and Environmental Regulation (DWER).

Outcome 6: Water management practices enhance resource efficiency, service delivery, and support equitable access for all.

Key strategies and actions required to achieve outcome 6 are:

13. Support greater collaboration and develop a shared responsibility across government, industry and the community to deliver improved water management outcomes.

13.1. Develop stronger partnership approaches with Water Corporation, DWER, Department of Biodiversity and Conservation (DBCA) and Department of Primary Industries and Regional Development (DPIRD) to clarify roles and optimise collaborative actions that deliver sustainable water management outcomes.
13.2. Improve opportunities for the community to contribute meaningfully to decisions on water management.

14. Align the City's governance, policy and service delivery tools to strengthen the delivery of sustainable water management outcomes that consider future growth and deliver climate resilience.

14.1. Incorporate the strategy outcomes, including commitment to the delivery of WSUD principles, into all projects, works and maintenance activities carried out by the City.
14.2. Continue to support the City's internal water management team and encourage broader, strategic discussions on how to optimise cross-department delivery.
14.3. Identify locations where retrofit of drainage or revitalisation of wetlands improves amenity for the community, particularly in areas with reduced access to public space or natural areas, or where a linkage will support increased walking and/or cycling.
14.4. Manage the City's natural areas to ensure important social, environmental and economic values are maintained into the future as prioritised in the Local Biodiversity Strategy.


Yakamia Creek

4 IMPLEMENTATION PLAN

Actions are proposed to guide the City's implementation of this Strategy to achieve the Vision of *Working together to protect and manage our water resources and landscapes to create a sustainable future for all.*

A timeframe and level of priority is proposed for each action. The timeframe indicates the suggested period in which the action should be implemented, while the priority reflects the importance of the action in contributing to the overall aim of the Strategy. The priority and timeframe should be considered together; actions which are of low priority but have a short timeframe may represent some early achievements in the Strategy's implementation. Actions that are of high priority may require a long timeframe due to their complexity. The timeframes and priority levels are indicative only. Implementation of these actions will be influenced by factors such as funding and/or budget availability, Council priorities and capacity, and levels of stakeholder and/or community support.

Tables 8 to 11 provide guidance on timeframes, priority and funding source of actions in Section 4.1.

Table 2: Key to timeframe

Timeframe	Actions to be completed
Short term	2025/26 – 2026/27 - within Annual Budget or Corporate Business Plan
Medium term	2027/28 – 2029/30 - within Corporate Business Plan
Long term	2030/31 – 2034/35 - within Long Term Financial Plan
Ongoing	To occur through operations and accounted for in annual operational budget.

Table 3: Key to priority designation

Priority	The approach actions require
High	Of high importance, needs a strong proactive approach, opportunities should be created.
Medium	Of medium importance, opportunities should be sought out.
Low	Of low importance, opportunities should be undertaken as they arise.

Table 4: Key to funding estimation

Priority	Likely order of magnitude costs
High	Over $100,000
Medium	$50,000 - $100,000
Low	Under $50,000

Table 5: Key to funding consideration represented by the colour of the action number

	Funding consideration
	The action can be absorbed into operations and does not require additional budget allocation.
	The action is included or forms part of an action included in the Corporate Business Plan or Annual Budget.
	The action is not included in the Corporate Business Plan or Annual Budget and is considered of a high priority. It should be considered for inclusion in next review and may require budget allocation.
	The action is to be considered for inclusion in the Long Term Financial Plan and future reviews of the Corporate Business Plan.

4.1 Priority strategies and action plan

Strategy	Action	Time frame	Priority	Funding	Responsibility	Indicator
Outcome 1: Waterways and biodiversity are protected and restored through revegetation, sustainable access, and improved catchment management.						
1. Develop a strategic platform that supports the protection and enhancement of biodiversity and waterways across the City.	1.1. Complete and implement the City's biodiversity strategy to provide an overarching platform to guide coordinated action.	Short term	High	Low	Development Services	Strategy endorsed and released
	1.2. Consider development of targets for catchment protection, restoration and management at an individual catchment level.	Long term	Low	High	City Reserves, Engineering and Planning	Targets developed
2. Enhance partnerships and support coordinated activities by other organisations and the community to restore biodiversity and waterway health.	2.1. Work with neighbouring local governments to develop a coordinated approach to address upstream and downstream impacts including aligned solutions.	Medium term	Medium	Low	Operations (Sustainability)	Alliance created Coordinated approach developed
	2.2. Provide resources for ranger programs and activities.	Medium term	Medium	High	Operations (Sustainability)	Resources allocated
	2.3. Host information sharing/educational opportunities for the community on good practice management of private waterway foreshores and the impact of environmental vandalism. Consider partnerships with State Government organisations.	Medium term	Medium	Low	Operations (Sustainability)	# community events held
	2.4. Assist community groups to access funding for restoration activities.	Ongoing	Medium	Low	City Reserves and Operations (Sustainability)	# community requests for assistance
	2.5. Hold planting days to increase community involvement and knowledge.	Ongoing	Medium	Low	City Reserves and Operations (Sustainability)	# planting days
	2.6. Promote info available for firewise planting and work with DFES and DPLH	Short term	Medium	Low	Operations (Sustainability) and Public Health & Safety (Emergency Services)	# promotion activities
Outcome 2: Drainage and flood management practices create climate-resilient, attractive, and functional spaces for people, plants and animals.						
3. Create an Albany-specific approach to the design and delivery of water sensitive urban design approaches that is responsive to landscape and the impacts of climate change.	3.1. Share information about locally-relevant issues with implementation of WSUD across the local industry and provide a platform for interrogation and discussion. Hold a bus tour and forum that showcases examples of WSUD solutions delivered over the past five years and facilitates constructive discussion of opportunities and constraints.	Short term	High	Low	Engineering and Assets	Bus tour and forum held # attendees
	3.2. Work across the organisation to understand the locally relevant preferences for design, construction and maintenance of WSUD assets across the range of urban landscapes and typologies. Develop appropriate guidance to clarify requirements and outcomes.	Short term	High	Low	Engineering and Assets	Guidance developed

Strategy	Action	Time frame	Priority	Funding	Responsibility	Indicator
4. Develop guidance to support delivery of WSUD solutions for local contexts and conditions and support with policy/regulation where required.	4.1. Develop a local planning policy and/or guidelines for the City to highlight local conditions that require site-specific solutions and locally-relevant application of *State Planning Policy 2.9: Water* and ensure planning applications are supported by appropriate water management information. This includes guiding location and function of public open space during structure planning.	Medium term	High	Low	Development Services	LPP/guidelines developed
	4.2. Develop a hierarchy of stormwater management solutions that clarifies the types of access and vegetation treatment required (including maintenance) for drains and waterways that considers environmental and community benefit. This information should be incorporated into a spatial plan that defines the waterways the city wants to manage, particularly in areas undergoing development.	Medium term	High	Low	Engineering, Assets and Operations	Hierarchy developed Spatial plan completed
	4.3. Share examples of WSUD solutions supported by the City to help inform designs by the development industry.	Short term	High	Low	Engineering and Assets	Case study developed
	4.4. Include the City's heritage drainage system (stone-lined drains) on the City's Heritage register to provide protection particularly in redevelopment areas.	Short term	Medium	Low	Development Services	Register updated
	4.5. Enhance monitoring programs and develop tools to provide protection against unauthorised filling of floodplains and waterway foreshores which can compromise flood storage and water quality.	Long term	Medium	High	Development Services (GIS) and IT	Information available and applied
Outcome 3: Public spaces are sustainably irrigated, enhancing urban greening, canopy cover, and community wellbeing.						
5. Reduce reliance on scheme water	5.1. Investigate opportunities for alternative sources of water for irrigation based on local characteristics (ie. natural springs, stormwater, groundwater, greywater) where scheme water is currently being used.	Medium term	Medium	High	City Reserves	Opportunities identified
	5.2. Minimise water intensive vegetation and promote use of locally native, waterwise species and hydrozoned and efficient irrigation systems.	Short term	High	Low	City Reserves	Information prepared and available
	5.3. Support innovation and new technology to optimise irrigation system performance.	-Ongoing	Medium	High	City Reserves	Improvements identified
6. Understand and respond to community expectations for green spaces	6.1. Increase visibility of water sources used for irrigating public spaces including the planning undertaken to address the impacts of climate change (i.e. reduced access to water and increased heat), to enhance knowledge within the community regarding the diversity of sources and sustainability practices used by the City.	Short term	Low	Low	City Reserves	Information prepared and accessible
	6.2. Provide an opportunity for the community to participate in discussions about any future changes in public space required as a result of reduced access to water for irrigation.	Medium term	High	Low	City Reserves	Opportunity for input created

Strategy	Action	Time frame	Priority	Funding	Responsibility	Indicator
7. Ensure design and delivery of green space is appropriate to local climate, urban context and water availability	7.1. Consider location for future public open space at structure plan stage and provide guidance on form, function and irrigation needs.	Ongoing	High	Low	Development Services	# structure plans reviewed with advice given
	7.2. Develop guidance on locally appropriate waterwise public open space design including principles for designing water bodies for community enjoyment and species to be used in landscaping.	Short term	Medium	Low	City Reserves	Guidance prepared
	7.3. Develop guidance for better park designs as part of renewal.	Medium term	Low	Low	City Reserves	Guidance prepared
	7.4. Demonstrate best practice design of public open space, streetscape and drainage through the City's development at McAlpine Rise. Create case studies and examples as appropriate.	Short term	High	Low	Development Services/ Engineering/Reserves	Guidance prepared
Outcome 4: Wastewater is managed effectively to protect receiving environments and maximise reuse opportunities.						
8. Continue to share knowledge and develop tools to embed best practice irrigation and sustainable management techniques, including opportunities for continual improvement.	8.1. Continue to monitor and report on water usage.	Ongoing	High	Low	Facility Managers	Data availability and reporting
	8.2. Complete and implement the City's Urban Forest Strategy and include targets for City-managed lands and requirements for new development areas.	Short term	High	Low	Operations (Sustainability)	UFS and targets finalised
9. Bring champions together to develop a shared understanding of the opportunities to improve management of wastewater at all scales and support further demonstration projects.	9.1. Hold a forum/showcase of local technologies for wastewater reuse that are appropriate at a range of scales and conditions.	Medium term	Low	Low	Health & Safety	Forum held # attendees
	9.2. Consider further opportunities for stormwater harvesting to support irrigation of public spaces.	Medium term	Medium	Medium	City Reserves, Assets and Engineering	Opportunities identified
	9.3. Develop a pilot or demonstration site for rainwater collection and supply to toilets, as well as on-site wastewater management and reuse. Consider inclusion of a rainwater tank plumbed to toilets in development guidelines and a greywater system in landscape packages for the City's development at McAlpine Rise.	Short term	High	Low	Development Services/ Engineering/Reserves	Requirements included in McAlpine Rise
10. Share information about existing projects and locally relevant opportunities to improve wastewater management and reuse.	10.1. Audit the performance of on-site wastewater management systems, targeting areas in proximity to important environmental assets and the light industrial area and provide recommendations for improved outcomes where necessary.	Medium term	Low	Medium	Health & Safety	Audit and recommendations completed
	10.2. Educate the community on the various types of treatment technologies and best practice management – consider development of fact sheets and/or community events and expansion on the City's "one-stop-shop" to help with wastewater information.	Medium term	Low	Low	Sustainability and Communications	Fact sheets developed Information shared
	10.3. Provide incentives for greywater reuse and promote the Water Corporation's rainwater tank rebate program.	Long term	Low	High	Health & Safety and Operations (Sustainability)	Incentives created

Strategy	Action	Time frame	Priority	Funding	Responsibility	Indicator
Outcome 5: Communities are engaged and supported to adopt water sensitive behaviours and care for water resources.						
11. Create aligned and influential champions with strong platforms that build support for best practice community engagement, knowledge sharing and behaviour change.	11.1. Continue to support community, NRM and NGO groups to deliver improved waterway management and restoration outcomes.	Ongoing	High	Medium	City Reserves	# active groups Support given
	11.2. Consider incentives to improve management of waterways and wetlands in private ownership.	Short term	Medium	Low	Development Services	Incentives identified
	11.3. Support Elected Members and senior executives to understand the City's water resource context and the actions that can be taken to improve outcomes. This may include a site visit to showcase good practices and outcomes.	Short term	Medium	Low	Council Liaison and Operations (Sustainability)	Bus tour/ presentation held
12. Develop guidance to build capacity and empower actions by individual businesses and homeowners	12.1. Develop guidance on locally-relevant ideas for simple home interventions such as downpipe diversions into raingardens and promote through the City's media channels.	Medium term	Medium	Medium	Operations (Sustainability) and Building Services	Guidance developed
	12.2. Share information (possibly via a story map) with the community about the complex management of water resources across the City including clarifying roles and responsibilities of the City, the Water Corporation and the Department of Water and Environmental Regulation (DWER).	Medium term	Medium	Low	Sustainability and Communications?	Information available
Outcome 6: Water management practices enhance resource efficiency, service delivery, and support equitable access for all						
13. Support greater collaboration and develop a shared responsibility across government, industry and the community to deliver improved water management outcomes.	13.1. Develop stronger partnership approaches with the Water Corporation, DWER, DBCA and DPIRD to clarify roles and optimise collaborative actions that deliver sustainable water management outcomes.	Medium term	High	Low	All	Partnerships created
	13.2. Improve opportunities for the community to contribute meaningfully to decisions on water management.	Medium term	Medium	Low	Community Relations	Community engagement framework updated
14. Align the City's governance, policy and service delivery tools to strengthen the delivery of sustainable water management outcomes that consider future growth and deliver climate resilience.	14.1. Incorporate the strategy outcomes, including commitment to the delivery of WSUD principles, into all projects, works and maintenance activities carried out by the City.	Ongoing	High	Low	All	#WSUD projects
	14.2. Continue to support the City's internal water management team and encourage broader, strategic discussions on how to optimise cross-departmental delivery.	Ongoing	High	Low	CEO	# meetings
	14.3. Identify locations where retrofit of drainage or revitalisation of wetlands improves amenity for the community, particularly in areas with reduced access to public space or natural areas, or where a linkage will support increased walking and/or cycling.	Medium term	High	Low	Engineering and Assets	Locations mapped
	14.4. Manage the City's natural areas to ensure important social, environmental and economic values are maintained into the future as prioritised in the Local Biodiversity Strategy.	Ongoing	High	High	City Reserves	Values identified and management actions implemented.

5 REFERENCES

Commonwealth *Scientific and Industrial Research Organisation* (*CSIRO*) 2015, *Climate Change in Australia*. Available from: https://www.climatechangeinaustralia.gov.au/en/projections-tools/regional-climate-change-explorer/sub-clusters/?current=SSWSW&tooltip=true&popup=true [May 2021]

Department of Mines, Industry Regulation and Safety, 2021, Geological Survey of Western Australia (GSWA) maps at https://geoview.dmp.wa.gov.au/geoview/

Department of Water, 1999, Albany Drainage District Authorised Plan**,** DoW, Perth.

Department of Water and Environmental Regulation, 2014, Great Southern Regional Water Supply Strategy.

Department of Water and Environmental Regulation, 2015, Acid Sulfate Soil Management Guidelines: Identification and Management of Soils and Water in Acid Sulfate Soil Landscapes.

Department of Water and Environmental Regulation, 2022, Operational Policy 13 – Recreation in public drinking water source areas on Crown land.

Department of Water and Environmental Regulation, 2024, Water supply planning in the Great Southern Region.

Department of Water and Environmental Regulation, 2004-2007, updated 2021, Stormwater Management Manual for Western Australia.

Department of Water and Environmental Regulation, 2024, Albany and hinterland water allocation plan. https://www.wa.gov.au/service/natural-resources/water-resources/albany-and-hinterland-water-management

Department of Water and Environmental Regulation, 2025, Contaminated sites database https://dow.maps.arcgis.com/apps/webappviewer/index.html?id=c2ecb74291ae4da2ac32c441819c6d47

Environmental Protection Authority, 2008, Guidance Statement No. 33: Environmental Guidance for Planning and Development, Water and the Urban Environment (Environmental Protection Authority (EPA), 2008)

Government of Western Australia, 2021, Western Australian climate projections Summary, Department of Water and Environmental Regulation, Perth, WA. https://www.wa.gov.au/system/files/2022-01/Western_Australian_Climate_Projections_Summary.pdf

Hope, P. et al. 2015*, Southern and South-Western Flatlands Cluster Report, Climate Change in Australia Projections for Australia's Natural Resource Management Regions: Cluster Reports*, eds. Ekström, M. et al., CSIRO and Bureau of Meteorology, Australia.

Western Australian Planning Commission, 2025, *State Planning Policy 2.9: Water,* Department of Planning, Lands and Infrastructure, Perth, WA.

Western Australian Planning Commission, 2025, *Planning for Water Guidelines,* Department of Planning, Lands and Infrastructure, Perth, WA.

APPENDIX 1: DELIVERING THE WATERWISE COUNCIL ACTION PLAN REQUIREMENTS

The Waterwise Council Program aims to build a cooperative working relationship with local governments in Western Australia by acknowledging councils that are demonstrating leadership in sustainable water management. The Program supports the State Government's vision to build waterwise communities.

The Program runs jointly with the Department of Water and Environmental Regulation, supports local governments to improve water efficiency and adopt waterwise practices in their operations and local communities. In conjunction with building waterwise communities, it recognises how Waterwise Councils are leading by example and inspiring residents to save water.

This strategy seeks to deliver the requirements of the City's next Waterwise Council Action Plan which is due in 2025. Table 6: outlines the sections of this report that address the requirements.

Table 6: Requirements of the Waterwise Council Action Plan as addressed by this Water Management Strategy

Waterwise Council Action Plan	LG Waterwise Strategy
Main Strategic Documents	Introduction • Purpose • Preparation of the report • Guiding policy, strategy and guidelines
Waterwise Journey Waterwise Achievements	Context – water in the City of Albany • Key environmental conditions • What does the community value? • WSC Benchmarking workshop results and WW journey • Challenges and opportunities
Waterwise Vision Waterwise Goals Corporate Water Management Community Water Management	Waterwise Strategy • Vision for Albany as a Water Sensitive City • Objectives • Strategies and actions
Waterwise Council Program Overview Water Use Inventory Corporate and community water consumption Waterwise Endorsement Action Table Gold Waterwise Council Action Table	Appendix 1: Delivering the Waterwise Council Action Plan requirements

Waterwise Gold Council application Management of Endorsement including contact details	

Contact Details

LGA details		**Chief Executive Officer**	
Administration office address	102 North Road	Name	Andrew Sharpe
Telephone	6820 3000	Telephone	6820 3002
General email	staff@albany.wa.gov.au	Email	andrews@albany.wa.gov.au
Primary Program Contact		Secondary Program Contact	
Name	Kylie Outhwaite	Name	Julie Passmore
Position	Climate and Sustainability Project Officer	Position	Coordinator Sustainability and Waste Strategy
Telephone	6820 3909	Telephone	6820 3918
Email	Kylie.outhwaite@albany.wa.gov.au	Email	Julie.passmore@albany.wa.gov.au

Water Management Team

Name	**Position/Department**	**Email**	**Completed online training*?**
Kylie Outhwaite	Climate and Sustainability Project Officer	Kylie.outhwaite@albany.wa.gov.au	Yes
Wayne Turner	Developed Reserves Supervisor	Wayne.turner@albany.wa.gov.au	Yes
Gary Cooper	Reticulation Leading Hand	Gary.cooper@albany.wa.gov.au	Yes
Andrew Glendinning	Building Infrastructure Officer	Andrew.glendinning@albany.wa.gov.au	Yes
Kenna Sutherland	Senior Civil Engineering Officer - Drainage	kenna.sutherland@albany.wa.gov.au	Yes
Alan Millar	Development Engineer	Alan.milar@albany.wa.gov.au	Yes

Water use inventory

Corporate and community water consumption data is provided by the Water Corporation to assist Waterwise Councils with their annual re-endorsement reports. The purpose of the Corporate and Community water use inventories is to identify priority areas for action and assist LGA's to track water consumption over time.

Corporate water consumption

Table 7: Summary of corporate total water consumption overtime from potable and non-potable water sources

Water source and water use (kL)	2020/21	2021/22	2022/23	2023/24	2024/25
Potable water	64,713	63,949	65,735	83,300	75,819
Non-potable, licensed groundwater	0	0	0	0	0
Non-potable alternate water source (Non-licensed bore water*)	NA	NA	236,092	374,155	241,993
Total water consumption	**64,713**	**63,939**	**301,827**	**457,455**	**317,812**

*Reporting of alternative water source use commenced 2022/23. Consumption is approximate.

The City is working towards obtaining accurate data readings for consumption of non-potable alternate water (Recycled/stormwater) and this has not been included in the above table.

Table 8: Top 5 potable and top 5 non-potable water consuming assets

Account #	Common name	Water use source	2023/24 (kL)	2024/25 (kL)	Notes*
Top 5 potable sites					
9006235223	Albany Leisure and Aquatic Centre	Scheme	15,711	16,506	Gold Waterwise endorsed aquatic centre.
906214721	Middleton Beach Foreshore	Scheme	5190	4506	
9010378234	Mercer Rd Depot	Scheme	4251	4058	
9010378243	Woodrise Park	Scheme	481*	2610	*Meter not working correctly in 2023/24. Meter reading only captured part of the year.
9006186898	Rest Centre Rest Rooms	Scheme	1860	2340	Public showers and toilets.
Top 5 non-potable sites					
GWL204097	Ablution block/irrigation	Ground water	0	0	Not in use.

Table 9: Summary of corporate licenses to take groundwater

Licence #	Current Licensed allocation (kL)	Actual metered abstraction 2023/24 (kL)	Actual metered abstraction 2024/25 (kL))	Notes/updates	Meter reads uploaded to Water Online?
GWL 204097	1,624	0	0	Insufficient yield to facilitate use	Yes

Community water consumption

Community consumption of potable water is supplied through the Lower Great Southern Town Water Supply Scheme and is reported on by the Water Corporation.

Table 10: Community potable water use sectors and water consumption over time

Water source and use (kL)	2020/21	2021/22	2022/23	2023/24	2024/25
Residential	2,441,415	2,501,538	2,550,103	2,733,840	2,317,421
Commercial	627,159	648,587	652,195	721,315	639,499
Education	54,190	60,041	53,628	71,417	64,788
Total water use	**3,122,764**	**3,210,166**	**3,255,926**	**3,526,572**	**3,021,708**

Table 11: Community non-potable water allocation over time

Water source and use (kL)	2020/21	2021/22	2022/23	2023/24	2024/25
Garden bores	329,364	329,364	329,364	329,364	329,364
Licensed, self-supply groundwater users for example schools, sports clubs, industry, construction and horticulture	340,571	430,571	347,921	352,324	332,524
Total water use	**669,935**	**759,935**	**677,285**	**681,688**	**661,888**

Table 12: Waterwise Endorsement Action Table

Water Area	Corporate Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Link to WMS	2024/2025 Updates/Notes/Evidence
All water sources				
Facilities	Monitoring of water use to improve water efficiency and reduce water demand of top water consuming assets.	Ongoing	Action 8.1	For a list of Waterwise Auditors, go to https://www.watercorporation.com.au/Waterwise/Waterwise-specialists
Facilities	Implement maintenance processes to detect, report and repair leaks within all council assets.	Ongoing	This has been operationalised so no need for separate action	For information on detecting and repairing leaks, visit https://www.watercorporation.com.au/Help-and-advice/Water-issues
Monitoring	Implement tracking and monitoring of assets' water use over time using industry standards for benchmarking top water consuming sites.	Ongoing	Action 8.1	Industry standards can be found here.
Education	Operational Water Management Team.	Ongoing	Action 14.1	
Irrigation	Baseline water budget for irrigated public open space assets.	As per Developed Managed Space guidelines	This has been operationalised so no need for separate action	
Irrigation	Well performing irrigation systems	In progress	Action 5.3	
Landscaping	Landscaping policies and/or plans to include low water use plants, waterwise mulch, hydrozoning and soil amendments.	Completed	Action 5.2	
WSUD	Implementation of water sensitive urban design in new land developments and infill developments.	As required by State Planning Policy 2.9: Water (WAPC, 2025)	Action 4.1	
	See Table 13 for additional actions			
Potable water sources				
Facilities	Procurement policies incorporate internal requirements to install better than the minimum			For information on WELS ratings, visit https://www.waterrating.gov.au/

Water Area	Corporate Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Link to WMS	2024/2025 Updates/Notes/Evidence
	Building Code of Australia WELS ratings for water efficiency for water fixtures, fittings and appliances for all new buildings AND external requirements to use Smart Approved Water Marked and Waterwise Approved products and services where possible.			For a list of waterwise devices, go to https://www.smartwatermark.org/products/waterwise/
Monitoring	Scheme water meters (and any sub meters) are read on a regular basis and recorded. Usage anomalies are investigated, and leaks repaired in a timely manner.	Ongoing	Action 8.1	For information on how to read your water meter, templates and information is available at https://www.watercorporation.com.au/Help-and-advice/Business-customers
	See Table 13 for additional actions			
Non-potable water sources				
Monitoring	Progress to meter the take of water from all licensed groundwater bores using correctly installed and approved water meters.	N/A		
	Maintain all meters in good working order and notify DWER as soon as possible of detecting a malfunction of the water meter.	Ongoing	This has been operationalised so no need for separate action	See Meter our water use brochure for more information on how to maintain and service your meter
	See Table 13 for additional actions			

Water Area	Community Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	2023/24 Notes *Include any updates or evidence*
Education	Engage with household and business ratepayers to promote water efficiency, waterwise gardens and how to be a responsible garden bore owner.	Ongoing		

Water Area	Community Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	2023/24 Notes *Include any updates or evidence*
Education	Provide information on the installation and local regulation of non-potable water supply (e.g., greywater systems and rainwater tanks)	Ongoing	Action 10.3	
Education	Engage with local schools on water efficiency and sustainability programs, including encouraging schools to participate in the Waterwise Schools Program.	Ongoing	Community	For a list of schools in your council who are not endorsed, please email WEpartnerships@watercorporation.com.au
Add+	See Table 13 for additional actions			

Table 13: Gold Waterwise Council Action Table

WSC goal	5yr Gold Actions (minimum of 10 actions including those listed below)	Status (Complete/ /Ongoing/To be Completed)	Department Responsible	2024/2025 Updates/ Notes/Evidence
Good Water Sensitive Governance	Encourage local developments and infill projects to be accredited under Green Star Developments, EnviroDevelopment, One Planet Living or Living Community Building Challenge.	Ongoing	Planning	
Good Water Sensitive Governance	Support relevant parks and irrigation staff to complete Irrigation Australia's Irrigation Efficiency Course.	Completed		
Good Water Sensitive Governance	See actions 2.2, 4.1, 11.3, 13.1, 14.1, 14.2 and 14.3.		See Implementation Plan	
Increase Community Capital	Provide local planting lists for residents with waterwise species in line with the Waterwise Plant Directory.	Completed		
Increase Community Capital	See actions 2.3, 2.4, 2.5, 11.1, 12.1, 12.2 and 13.2.		See Implementation Plan	
Achieve equity of essential services	See actions 4.5, 6.1, 6.2, and 8.1.		See Implementation Plan	

WSC goal	5yr Gold Actions (minimum of 10 actions including those listed below)	Status (Complete/ /Ongoing/To be Completed)	Department Responsible	2024/2025 Updates/ Notes/Evidence
Ensure quality urban space	Provide active progress towards upgrading retrofitting local drainage sumps infrastructure to improve for community accessibility, amenity and environmental improvement outcomes using Water Sensitive Design techniques.	Not relevant		
Ensure quality urban space	See actions 3.1, 3.2, 4.3, 4.4, 7.1, 7.2, 7.3, 7.4, and 8.2.		See Implementation Plan	
Improve Productivity & Resource Efficiency	Encourage participation of public and private golf courses in the Department of Water and Environmental Regulation's Waterwise Golf Program.			
Improve Productivity & Resource Efficiency	See actions 5.1, 5.2, 10.1, 10.2, and 10.3.		See Implementation Plan	
Improve Ecological Health	See actions 1.1, 1.2, 2.1, 4.2, 11.2.		See Implementation Plan	
Promote adaptive infrastructure	See actions 5.3, 9.1, 9.2, and 9.3.		See Implementation Plan	

APPENDIX 2: GUIDING POLICY, STRATEGY AND GUIDELINES

The following strategies, policies and guidelines are considered to have particular relevance to the City of Albany Waterwise Strategy.

City of Albany

Strategic Community Plan 2032

City of Albany Strategic Community Plan 2032 details a vision for the City of Albany ***as amazing, where anything is possible***. It contains five pillars - People, Planet, Place, Prosperity and Leadership, each with their aspiration statement. It also includes Outcomes and Objectives, linked to the Sustainable Development Goals, noting the SD6 is Clean water and sanitation.

The plan highlights the City's actions towards being waterwise, and notes that the City saved 130,810 kL of water in 2020 through promotion of water saving initiatives like the Shower Head Swap Program and that the City was endorsed as a Gold Waterwise Council.

Outcome 2.2: Shared responsibility for climate action includes objective 2.2.1 to reduce water usage.

City of Albany Local Planning Scheme

The City of Albany Local Planning Scheme No 2 contains the following (selected) aims that have relevance to this strategy:

> (b) Promote a network of reserves and vegetated corridors throughout the City to protect areas of high conservation or scenic values and create corridors for fauna and flora linkages.
>
> (c) To improve the overall sustainability of buildings within the City through the incorporation of the measures including reduced energy use, recycling/reuse of water and innovative housing solutions.
>
> (f) Promote the conservation and management of the natural environment and the sustainable management of all-natural resources including water, land, minerals and basic raw materials to prevent land degradation.

General development standards that apply to land in the Scheme area include requirements for stormwater management and protection from flooding, recycling/reuse of water and the protection of waterways and wetlands, and the provision of adequate potable water supplies and management of wastewater. It also incorporates water sensitive urban design principles as follows:

> *(1) The local government may require all development to incorporate water sensitive urban design principles and best management practices to:*
>
> > *(a) Reduce the rate of discharge and the quantity of stormwater that flows from the land so that post-development flows match pre-development flows;*
> > *(b) Avoid the export of waterborne pollutants, including nutrients;*
> > *(c) Recharge groundwater resources;*
> > *(d) Protect and enhance the ecological values of rivers, creeks and drains; and*
> > *(e) Retain local water for non-potable use.*

Note: The management of stormwater collection, retention and disposal on all developments, including subdivisions, shall be in accordance with the recommendations of the Stormwater Management Manual for WA. The local government may require the preparation and implementation of Stormwater Management Plans as a condition of development approval, in consultation with the responsible state department/s.

(2) Stormwater design plans may be required at the time of subdivision and development considerate of the following performance measures:

(a) Retention of hydrology as close as possible to pre-development conditions.
(b) Overland flood routes to accommodate major rainfall events.
(c) Nutrient and flood mitigation measures such as underground detention tanks and/or overland flood routes with infiltration swales, filter strips and nutrient stripping features.
(d) Drainage management measures being designed to withstand high velocity flows and to minimise erosion, generation of sediment and ongoing maintenance requirements.

It also contains special control areas to address coastal erosion risk (Middleton Beach, Griffiths St and Emu Point), and flood/inundation risk (Yakamia Creek, Tjuitgellong/Lake Seppings, Princess Royal Harbour, Miaritch/Oyster Harbour, Kiangadarup/Lake Powell, Lake Manurup and Yerringurrup/Willyung Creek.

City of Albany Local Planning Strategy

The City of Albany Local Planning Strategy, endorsed by the Western Australian Planning Commission in 2019, contains an objective to Provide an appropriate level of community facilities and services in existing and planned settlement areas and Protect the City's pristine natural and coastal environments and other landscape qualities.

It notes that water resources within the City have important environmental, social and economic values and that the availability and the quality of water resources are critical to the City's environment and economy. The current extent of the water and sewer network is identified as a constraint to future development and infill.

It identifies the following actions:

1. Assess development and subdivision applications to ensure that no direct discharge occurs to rivers, estuaries and wetlands from stormwater and industrial wastewater outfalls.
2. Ensure structure planning, subdivision and development that proposes on-site effluent disposal takes cumulative impacts into consideration and complies with separation distances from water resources as set out under the *Government Sewerage Policy*.
3. Require best practice, stormwater management in subdivisions, including the incorporation of site-responsive water sensitive urban design to manage stormwater quality and quantity and runoff into all waterways.
4. Identify and accurately map priority flood-prone areas with assistance from the Department of Water and Environmental Regulation. Current mapped flood prone areas are shown on Figures 5 (Part 2).
5. Land use planning controls within flood-prone areas are contained within the Local Planning Scheme and local planning policy. The

need for additional controls will be investigated under the review of the Local Planning Scheme.

6. Protect regionally important river (shown on Figures 1 and 2), wetland and estuarine foreshores, and other priority sites with high conservation value through mechanisms including ceding for public ownership. Foreshore areas shall be determined as part of structure plans, and ceded at subdivision and development (whichever occurs first).
7. Advocate for the vesting of Unallocated Crown land with high conservation values with an appropriate agency to ensure secure protection and management.
8. Condition fencing and revegetation and ongoing management of rivers, floodplains, wetlands and estuaries to reduce sediment and nutrient transportation at structure plan and subdivision stages.
9. Investigation Area 11 – Protection of Yakamia Creek and Lake Seppings **-** Identify planning mechanisms to protect the environmental qualities of Yakamia Creek and Lake Seppings.

City of Albany Corporate Business Plan 2023-27

Similarly to the Strategic Community Plan, the Corporate Business Plan 2023-2027 notes that "Local risks and challenges include coastal erosion, extreme weather events, water supply, and increased pressure on natural assets from population and visitor growth." It recognises the achievement of waterwise outcomes as a recent highlight, and contains the following actions:

- 2.2.1.1 Provide a Waterwise Strategy.
- 2.2.1.2 Facilitate promotion and adoption of Waterwise initiatives by the City and across the local community.
- 2.2.1.3 Provide water tanks on City buildings, where possible.

This strategy completes action 2.2.1.1.

Developed Managed Space: Parks & Gardens Policy

The Developed Managed Space: Parks & Gardens Policy was endorsed in 2024. It aims to ensure the City provides equitable access to a diverse network of recreational experiences that enhance the lives of the whole community, regardless of a resident's address.

The policy provides direction and guidance for the provision of infrastructure and maintenance operations at each of the City's parks (including foreshore reserves) based on an associated Level of Service (LOS). The parks are classified as Regional, District, Neighbourhood and Local, each with a different level of service. With regards to irrigation, that varies from 25-40mm/week with an irrigation schedule of 3 times per week for regional spaces, to 10-15mm/week for district spaces, 8-10mm/week for neighbourhood spaces and 5-8mm/week for local spaces.

The policy also recognises that a portion of the City parks are utilised for stormwater management and drainage.

Environmental Weed Management Plan, 2019

The Environmental Weed Management Plan seeks to provide a targeted approach to controlling environmental weeds on land managed by the City of Albany. It applies to all land managed by the City of Albany. This includes Crown land reserves, road reserves and any freehold land under the care and control of the City.

The plan identifies a number of lake and river foreshores as priority reserves for environmental weed management. These include the Kalgan and King revies and Lake Seppings.

Stormwater Management Strategy 2017

The Stormwater Management Strategy 2017 sets out policy and best practice settings for managing stormwater and sets priorities for modelling and evaluating the existing system, which directs the future investment in system improvements. It provides an overarching direction for managing the conveyance of stormwater and floodwater to protect the social, economic and environmental assets within the community including objective criteria to guide local government decision making about stormwater planning and investment.

Strategic Asset Management Plan

The Strategic Asset Management Plan provides more operational guidance on the management of the City's drainage system. This includes financial investment, levels of service criteria and asset condition. The plan is undated, however.

Urban Tree Strategy, 2017

The Urban Tree Strategy is a strategic plan for the expansion, protection and management of trees in our urban environment. It aims to engage and educate the community about the social, economic and environmental benefits of trees. The vision of the Urban Tree Strategy is to create a tree network that will be resilient, healthy, diverse, and sustainable. This strategy aims to promote long-term health benefits, city liveability, complement our natural surrounding landscape and mitigate the effects of climate change. It notes that trees capture and filter stormwater through their canopies and root systems, thereby reducing stormwater runoff.

Verge Development Guidelines, 2025

The Verge Development Guidelines assist residents in carrying out landscaping or other improvement works to the Verge adjoining their property. The guidelines note that Waterwise verge gardens, that don't require permanent irrigation, are preferred as they use less water.

Other relevant guidance

State Planning Policy 2.9: Water

The delivery of water sensitive city outcomes as part of the planning and development approvals process is a requirement of the recently released *State Planning Policy 2.9: Water* (WAPC, 2025). The objectives of the policy are to:

1. Protect and improve the environmental, social, cultural and economic values of the state's water resources.
2. Protect public health and the long-term supply of good quality and affordable drinking water.
3. Manage the risk of flooding to people, property and infrastructure.
4. Ensure the secure and sustainable supply, use, disposal and re-use of water resources.
5. Ensure future development is resilient to the water-related impacts of climate change.
6. Minimise future costs and protect public health by ensuring that appropriate wastewater infrastructure is provided.

The process for delivery of water sensitive cities outcomes via the planning and development approvals system is outlined in *SPP 2.9: Planning for Water Guidelines* (WAPC, 2025).

Other relevant technical guidance recognised in the Planning for Water Guidelines includes:

- Decision Process for Stormwater Management in WA (DWER, 2017)
- Stormwater Management Manual for Western Australia (DoW, 2004-2007)
- Guideline for the approval of non-drinking water systems in Western Australia: Urban developments (DoW, 2013)
- Policy: Managed aquifer recharge (MAR) in Western Australia (DWER, 2021)
- Guideline: Water and environmental considerations for managed aquifer recharge (MAR) operations in Western Australia (DWER, 2021)
- Australian Rainfall and Runoff, a Guide to Flood Estimation (Geoscience Australia 2016)
- Guidance Statement No.33 Environmental Guidance for Planning and Development (EPA, 2008)
- National Water Quality Management Strategy - Australian Drinking Water Guidelines (National Health and Medical Research Council, 2011, updated 2018).
- Local Government Guidelines for Subdivisional *Development* (IPWEA, 2017).
- Operational Policy: Identifying and Establishing Waterways Foreshore Areas (DoW 2012)
- Managing the Hydrology and Hydrogeology of Water Dependent Ecosystems in Urban Development (DoW 2013)
- A Guide to Managing and Restoring Wetlands in Western Australia (the former Department of Environment and Conservation, 2012).
- Treatment and Management of Soils and Water in Acid Sulfate Soil Landscapes (DWER, 2015)

Great Southern Regional Water Supply Strategy (2014)

The 2014 Great Southern regional water supply strategy informs long-term planning and development in the Great Southern region. The strategy considered a range of water demand scenarios to 2043 for mining, industry, agriculture and towns in the region and identified potential water source options to meet future demand.

DWER evaluated the strategy in 2024 and updated the water demand projections for the Great Southern region to 2050 (see Water supply planning in the Great Southern region).

This information informs local land use planning and investment in waterwise actions and infrastructure in the City of Albany.

DWER Operational policy 13 – Recreation in public drinking water source areas on Crown land

Operational Policy 13 outlines guidelines for managing recreation within public drinking water source areas (PDWSAs) on crown land in Western Australia. The policy aims to balance the protection of drinking water quality and public health with the benefits of recreation, emphasising preventive risk management to minimise contamination risks from recreational activities. It specifies compatible and incompatible activities within different zones of PDWSAs, provides procedures for assessing recreation proposals, and encourages the development of new recreational facilities outside PDWSAs. The policy also highlights the importance of education, enforcement, and collaboration among government agencies to ensure safe and sustainable use of these critical water source areas.

DWER WQIS 34 – Application form for recreational proposals within public drinking water source areas on Crown land.

This document provides an application form and guidelines for submitting recreation proposals within public drinking water source areas (PDWSA) on crown land. It outlines the importance of protecting water resources for public health and safety, details the assessment process under Operational Policy 13, and specifies prohibited activities within reservoir protection zones. The form requires detailed information about the proposed event or facility, including location, capacity, facilities, and risk management plans, while emphasizing the need to consider alternative sites outside PDWSA. Contact details and disclaimers are included for further assistance.

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