



Waterwise Council Action Plan

City of Swan
October 2021





The Waterwise Council Program supports the State Government's vision to create a Waterwise Perth and waterwise communities, recognising that:

A waterwise Perth is cool, liveable, green and sustainable, a place where people want to live, work and spend their time. It is a city where communities care about and value water, while making best use of its various sources (groundwater, surface water, stormwater, seawater and wastewater).

The city serves as a catchment and provides healthy natural environments, supporting a range of social, ecological and economic benefits.



Introduction

It has been over 10 years since the Waterwise Council Program was launched by Water Corporation and the Department of Water and Environmental Regulation. The Program was developed to build a cooperative working relationship with local governments to improve water use efficiency in local governments and their communities.

Since the development of the first Water Efficiency Action Plan in 2016, Waterwise Councils have achieved a number of amazing and innovative initiatives to reduce water usage and strive towards developing waterwise communities.

Criteria to become a Waterwise Council

The Waterwise Council (WWC) Program is free to all local government authorities (LGAs) in Western Australia to join. To be endorsed as a Waterwise Council, a local government must fulfil the following steps:

Criteria 1: Sign a Memorandum of Understanding to participate in the Waterwise Council Program.

Criteria 2: Review water consumption and create a Waterwise Council Action Plan for potable and non-potable water sources for all local government operations and the community.

Criteria 3: Ensure appropriate staff complete online waterwise training at <https://www.watercorporation.com.au/Help-and-advice/Business-customers>

Criteria 4: Progress towards full compliance with groundwater licence conditions including metering regulations and no infringements of water usage issued in the past 12 months.

Criteria 5: Report annually to retain endorsement (optional recognition scheme)

Objectives

The objectives of the Waterwise Council Action Plan are to:

- Assess current water management activities across council operations and the community;
- Identify opportunities to save water;
- Set goals to improve water management outcomes;
- Prepare an action plan and implement water actions to progress towards your targets;
- Provide a process for annual reporting on implementation of water actions;
- Work towards creating waterwise communities beyond water efficiency (recognition scheme)

This plan will be valid for a period of **5 years** and forms the basis of annual reporting requirements.

Methodology

- Waterwise journey
- Water use inventory
- Develop water goals and targets
- Table of endorsement actions
- Recognition Scheme



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City of Swan Waterwise Journey

Waterwise Council Milestones (existing WWCs only)

Milestone	Reporting Year
Endorsement	2015/2016
Gold	2016/2017
Platinum (Council of the Year)	N/A
10 Year Waterwise Council	N/A

Main Strategic Documents

Table 1: Summary of related strategic documents

Main Strategic Document	Link	Notes
Strategic Community Plan 2021-2031	https://www.swan.wa.gov.au/Your-Council/Governance-transparency/Corporate-plans-strategies	The City of Swan's Strategic Community Plan (SCP) sets out our vision, aspirations and objectives for our community over the next 10 years and is our principal strategy document. Particularly, Objectives N1.2 and N2.2.
Sustainable Environment Strategy Draft 2021	https://www.swan.wa.gov.au/Your-Community/Have-your-say/Community-consultations/Sustainable-Environment-Strategy-consultation	Focuses on seven key areas (biodiversity retention, water quality, water efficiency, carbon reduction, adaptation for the future, waste minimisation, and corporate capacity) the document details the strategies, policy positions and actions that the City will undertake to pursue environmental improvement in coming years.
Water Efficiency Action Plan 2016 (WEAP)	https://www.swan.wa.gov.au/Your-Council/About-us/Projects-initiatives/Our-plans-strategies/Water-Efficiency-Action-Plan	Previous plan.
Related Strategic Document	Link	Notes
Biodiversity Strategy 2016	https://www.swan.wa.gov.au/Your-Council/About-us/Projects-initiatives/Our-plans-strategies/Biodiversity-Strategy	Provides a plan for the future with a number of recommendations for biodiversity and is a key document in guiding natural resource management over the next decade.
Sustainable Environment Policy (POL-C-084)	https://www.swan.wa.gov.au/Your-Council/Governance-transparency/Policies-local-laws/Council-policies	The City's main guiding policy establishing the City's sustainability values and priorities.



Environmental Planning Policy (POL-C-104)	As above	The purpose is to clearly articulate and set out the City's expectations for the management of the natural environment especially relating to urban growth areas, including the management of surface and groundwater, water courses, and stormwater.
Floodplain Management and Development Policy (POL-E-9.2)	As above	The intent of this policy includes to conserve the environmental features of the floodplain, and provide guidelines for the use and development of the floodplain.
Verge Guidelines	https://www.swan.wa.gov.au/Your-Property-Land/Boundaries-gardens-verges/Verges/Verge-information	The City provides information on how to create a waterwise verge.
DRAFT Urban Forest Plan	https://www.swan.wa.gov.au/Your-Community/Have-your-say/Community-consultations/Urban-Forest-Plan	The City's draft Urban Forest Plan represents an integrated approach to supporting and enhancing our urban forest within the City's operations and in the wider community. Community consultation on draft plan closes 21 May 2021.
Waterwise Aquatic Centre reindorsement reports	As submitted to Water Corporation.	The City's three aquatic centres are endorsed Waterwise Aquatic Centres.
Irrigation Specifications	https://www.swan.wa.gov.au/Your-Property-Land/Irrigation-system-specifications	The purpose of the Irrigation System Specification is to provide a concise point of reference for the design and installation of landscape irrigation systems and shall be referred to in the assessment for approval of development of public open spaces. All irrigation designs will need to take into consideration future ground water allocation reductions.
Verge Landscaping Guidelines	https://www.swan.wa.gov.au/Your-Property-Land/Boundaries-gardens-verges/Verges/Verge-information	Information to ensure that verges are developed to provide a high level of amenity, accessibility and safety for pedestrians and motorists. This includes minimising the likelihood of damage, ongoing maintenance costs and the use of water and fertilisers. Includes information about free street trees and mulch, parking on verges, and waterwise gardens.



Waterwise Achievements

City of Swan's achievements include:

- All three aquatic centres have been endorsed as Waterwise Aquatic Centres; Swan Active Midland since 2008, Beechboro 2015 and Ballajura 2017.
- Maintained community water use 10kL below the 120kL per capita goal since 2016/17.
- Emu Lake Restoration ongoing for the last 10 years improving water quality, biodiversity and amenity outcomes, and shortlisted for Community Choice Waterwise Award 2021.
- The Environmental Champions staff green team meet bi-monthly to discuss operational sustainability awareness and improvements.
- Proactive Community Grants, category for Sustainable Environment.
- Per and Poly Fluoroalkyl Substances (PFAS) ground water contamination in West Bullsbrook – assisted with community education to not use soil and water for household or farming purposes, advocated for installation of scheme water for affected residents, and advocated for the Federal Government to take responsibility for site remediation.
- Retrofit completed for Swan Active Ballajura 2019/2020.
- Weekly sprinkler testing and active alarm reporting system for overnight faults.
- Waterway rehabilitation and restoration works:
 - Completed Stage 2 for Woodbridge Riverside Park and Middle Swan Reserve Foreshore.
 - Commenced Stage 1 of a five stage, five-year project to restore Wangalla Brook in Koongamia.
- Continued participation in the Light Industry Program (LIP) to improve environmental awareness and education in local industrial businesses, with the goal of protecting the river system from industrial pollution through engaging businesses and education/training on how to prevent industrial pollutants from reaching our rivers through stormwater drains and groundwater.
- Investigating alternative water supply opportunities in the Northeast Corridor (Brabham), developer has put forward a business case to the City for comment for manage aquifer recharge.
- Commencement of Bennett Brook Water Quality Improvement Plan including, Smallbrook Drain Revegetation, Lanius Street Park Living Stream, and Restoring Waugal Lagoon Projects.
- Ongoing community programs:
 - Throughout the year, City of Swan staff engage with the community via the Mobile Environmental Awareness Unit, known as the 'Kermit trailer', attends numerous community events, providing information including water efficiency, water quality and water conservation.
 - Thinking Green workshop series ongoing since 2014
 - Initiatives via Switch Your Thinking
 - Sustainable Living information available on the City's website
 - Sustainable environment events monthly newsletter



Water Use Inventory

Corporate water consumption

Table 2: Summary of corporate total water consumption overtime from potable and non-potable water sources

Water source	2016/2017 (kL)	2017/2018 (kL)	2018/2019 (kL)	2019/2020 (kL)	2020/2021 (kL)
Potable water	153,661	151,673	154,622	157,460	151,435
Non-potable, licensed groundwater	2,684,697	3,179,689	3,118,253	3,352,897	4,304,577
Non-potable alternate water source (Recycled water/stormwater etc.)	N/A	N/A	N/A	N/A	N/A
Total water consumption	2,694,420	3,203,550	3,272,875	3,384,807	4,456,012

Table 3: Top 5 potable and top 5 non-potable water consuming assets

Account #	Common name	Water use source	2019/2020 (kL)	2020/2021 (kL)	Notes*
Top 5 potable sites					
9004362499	Swan Active Beechboro	Scheme	12,220	16,404	2020/2021 saw fewer COVID lockdowns and a significant increase in patronage at Swan Active Beechboro, as well as a brief period of being used as an evacuation centre during the Wooroloo fires, so water use was up compared to 2019/2020 which had lower water use than normal (for context, 2018/2019 use was 14,244kL) due to COVID closures and lower patronage.
9004383871	Swan Active Midland	Scheme	16,472	16,303	Will be closed for refurbishments from 2021-2023.
9023516684	Watervalley Bvd Road Reserve, Brabham	Scheme	5,724	8,850	New meter, installed in 2019/20.
9004522587	Jungle Park, Whiteman Edge	Scheme	16,445	8,469	Significant drop after establishment of gardens.
9022145201	Swan Active Ballajura	Scheme	5,862	6,848	Previously years as high as 10,000-11,000kL.
Top 5 non-potable sites					
GWL168134	Aveley / Chequers Golf / Brigadoon /	Groundwater	588,521	686,320	Under allocation (988,756).



	Bullsbrook / Caversham / Lilac Hill				Includes: GWL 202759, GWL 203438
GWL155758	State Forrest	Groundwater	643,112	673,247	Over allocation (638,727). Includes GWL200409. Over allocation may be attributed to the irrigation of new revegetation works along The Broadway, Ellenbrook.
GWL168246	Ballajura	Groundwater	620,226	535,745	Under allocation (636,150).
GWL156178	Ellenbrook / The Vines	Groundwater	176,466	397,805	Over allocation (261,257). From 2020/21 includes GWL 203453. Over allocation may be accounted for by back wash of the filtration system at Vasse Park (which has now ceased), and/or potential over watering of Annies Landing (a new park) which is co-use with developer.
GWL168139	Midland / Swan View	Groundwater	307,434	318,908	Under allocation (325,775). From 2020/21 includes GWL99004



Table 4: Summary of corporate licences to take groundwater

Licence #	Current Licensed allocation (kL)	Actual metered abstraction	Actual metered abstraction	Actual metered abstraction	Notes*
		2018/2019 (kL)	2019/2020 (kL)	2020/2021 (kL)	
GWL204288	1,000				No data
GWL204343	3,000				No data
GWL172126	3,008	4,037	3,581	3,886	Over abstraction in 2018/19.
GWL60601	4,500				Included in GWL168131
GWL177215	5,625				Included in GWL177269
GWL202752	6,400	-	11,919	-	Included in GWL168131
GWL200251	15,000				No data
GWL202759	16,043	-	24,048	-	Included in GWL168134
GWL202729	17,649	-	9,739	-	Included in GWL168131
GWL49382	19,700				Included in GWL156457
GWL205535	20,685				No data
GWL158215	21,200	369	455	1,926	
GWL200409	28,079				Included in GWL155758
GWL162470	31,132	-	15,227	16,515	
GWL161669	35,250				Included in GWL168263
GWL64170	36,450	52,923	39,748	37,876	Over abstraction in 2018/19 & 2019/20.
GWL99004	45,000	1,132	26,717		Included in GWL168139
GWL156457	58,850	62,506	35,588	44,351	Over abstraction in 2018/19. Includes GWL 49382
GWL168266	64,645	11,190	14,316	11,677	
GWL160961	67,875	75,350	81,578	58,845	Over abstraction in 2018/19 & 2019/20.
GWL168131	73,547	59,398	55,318	151,188	Includes: GWL202752, GWL202729, GWL60601
GWL203438	74,834				Included in GWL168134
GWL203453	90,325	-	13,995	-	Included in GWL156178
GWL177269	142,961	-	27,816	87,557	Includes GWL177215
GWL168141	159,825	127,961	203,331	200,127	
GWL156178	170,932	158,666	176,466	397,805	Includes GWL 203453
GWL168263	198,675	144,959	129,991	130,487	Includes GWL161669
GWL168139	280,775	262,010	307,434	318,908	Includes GWL99004
GWL168142	376,058	343,852	323,771	294,133	
GWL155758	610,648	660,981	643,112	673,247	Over abstraction every year. Includes GWL200409
GWL168246	636,150	606,746	620,226	535,745	
GWL168134	988,756	547,304	588,521	686,320	Includes: GWL202759, GWL203438

NOTE: Some GWL have been aggregated in later years.



Community water consumption

Table 5: Community potable water use sectors and water consumption over time

Water use source	2016/2017 (kL)	2017/2018 (kL)	2018/2019 (kL)	2019/2020 (kL)	2020/2021 (kL)
Residential	12,040,576	12,347,683	12,640,794	13,231,750	13,427,937
Commercial	2,462,196	2,394,041	2,503,342	2,580,831	2,476,497
Education	184,958	231,560	207,317	188,764	176,017
Total water use	14,687,730	14,973,284	15,351,453	16,001,345	16,080,451

Table 6: Community non-potable water allocation over time

Water use source	2016/2017 (kL)	2017/2018 (kL)	2018/2019 (kL)	2019/2020 (kL)	2020/21 (kL)
Garden bores					7,120,415
Licensed, self-supply groundwater users for example schools, sports clubs, industry, construction and horticulture	See notes below ¹				32,899,259 ²
Licensed, self supply surface water users					339,480
Total water use (kL)					40,359,154

NOTES

1. This report does not include previous consumption totals for previous water use. This is due to the large amount of community, corporate and Water Corporation licences and the limited resources to create these reports. The department acknowledges the need for historic data but in this case, data collection will begin with this report.

2. Approximately 10 licences have bores that abstract that cross boundaries with neighbouring LGAs.

Across the City of Swan, water is abstracted and used locally by:

- Community, using garden bores to take groundwater – estimated 9,252 households taking approximately 7,120,415 kilolitres per year.
- Community, licensed to take groundwater - 1,149 users licensed to take a total of 32,899,259 kilolitres per year.
- Community, licensed to take surface water - 7 users licensed to take a total of 339,480 kilolitres per year from tributaries of the Swan River.
- Corporate (City of Swan), licensed to take groundwater – 32 licences to take a total of 4,304,577 kilolitres per year.

In addition to water abstracted and used locally by community and the City of Swan, the Water Corporation abstract a significant volume of groundwater before treatment and supply to households across Perth through the Integrated Water Supply Scheme.

(Source: DWER Community and corporate abstraction report, July 2021)



Waterwise Goals

Waterwise Vision

- The City of Swan is a leader in sustainable water management practices.
- The City of Swan community is aware of value of water and supports the City to be waterwise.
- Promote the sustainable management and protection of water resources through the application of efficient water management practice and controls. (Strategic Community Plan)
- Promote planning measures that encourage climate change adaptation and mitigation to ensure our communities are both resilient and liveable. (Strategic Community Plan)
- Advocate for and protect waterways and groundwater systems through appropriate land management practices. (Strategic Community Plan)

Corporate Water Management Goals

- Maintain corporate potable water use at 2017/2018 levels per capita.
- Audit ground water use with a plan to increase overall efficiency.
- Investigate the feasibility of alternative water sources used in the Council (such as rainwater, greywater, and managed aquifer recharge).
- Continue to investigate and improve drains and sumps to improve water quality and amenity.

Community Water Management Goals

- Encourage and educate the community to continue to reduce per capita water use below 110kL per annum by 2025-26.
- Educate the community about groundwater use and importance of leaving it in the ground for livability.
- Continue and expand participation in the Light Industrial Program to reduce the risk of emissions from industrial premises.
- Support local conservation groups whose work improves water quality and reduces water use.



Waterwise Endorsement Action Table

Waterwise Endorsement Action Table

**Mandatory Actions*

Table 8: Waterwise Endorsement Action Table

Water Area	Corporate Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	Notes/Evidence
All water sources				
Facilities	*Establish a Water Audit Program or similar to closely monitor water use, continually improve water efficiency and identify how to reduce water demand of your top water consuming assets. Demonstrate your plans to implement viable recommendations from your water audits over time.	Completed / ongoing	Strategic Planning, Leisure Services, Construction and Maintenance	The learnings from the previous audit have been fed into the capital work program upgrades and plans and guidelines so they can be applied across all City buildings.
	*Implement maintenance processes to detect, report and repair leaks within all council assets.	Ongoing	Leisure Services, Construction and Maintenance	Leaks can be reported by staff through the internal electronic reporting system, the General Enquiries and Complaints (GEAC) System.
Monitoring	*Implement tracking and monitoring of assets' water use over time using industry standards for benchmarking top water consuming sites.	Ongoing	Construction and Maintenance, Strategic Planning	Swan are trialling Azility monitoring at Ballajura, and are investigating the feasibility of using Azility for all three aquatic centres.
Education	*Establish a Water Management Team to foster a culture of Waterwise Champions within the council including providing behaviour change programs, workshops or initiatives that will encourage waterwise practices at the office and at home.	Ongoing / Business as Usual	Strategic Planning	Water Team meet regularly to discuss water related issues and solutions.





Waterwise Endorsement Action Table

Water Area	Corporate Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	Notes/Evidence
Irrigation	*Establish and / or maintain a baseline water budget for every aggregated groundwater licence. Demonstrate how you monitor and adjust the baseline water budget in response to multiple groundwater asset abstraction, weather conditions and or landscape planting changes.	Ongoing	Asset Management, Construction and Maintenance	<p>The City has aggregated our water licences and any water budgeting operates at licence level.</p> <p>We are undertaking an overall audit of our irrigation and plan to review water licence allocations and identify efficiencies. This may lead to a future Water Conservation Plan for the region, which could include how assets are managed to meet groundwater licence requirements. See attachment <i>Integrated water strategy for public open space in the Swan urban growth corridor - not for publication</i> (please note that this document should not be shared or used for other purposes).</p>
	*Provide evidence that demonstrates irrigation systems are performing at best practice and are audited to identify poorly performing fixtures or schedules.	Ongoing	Asset Management, Construction and Maintenance	<p>We are undertaking an overall audit of our irrigation and plan to review water licence allocations and identify poorly performing fixtures or schedules.</p>





Waterwise Endorsement Action Table

Water Area	Corporate Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	Notes/Evidence
Landscaping	*Landscaping policies and/or plans to include low water use plants, waterwise mulch, hydrozoning and soil amendments.	Ongoing	Asset Management	The City of Swan's Landscape Guidelines: Streetscapes and Open Space (April 2019) guide the design of verges, including residential, commercial and industrial properties (usually landscaped by owners or tenants) and streetscapes, medians, road reserves, public open spaces and parks, public access ways and verges. This document outlines the City's preference for water wise designs and encourages the use of local native plant species, drought tolerant exotic species and water wise garden designs. Currently the City is installing new irrigation at Lilac Hill Park (central oval) which is based on hydro-zoning. Irrigation designs underway for Kingfisher soccer oval, Kingfisher AFL Oval and Swan View Oval.
WSUD	*Develop Local Planning Policy to implement water sensitive urban design in new land developments and infill developments.	In Progress	Strategic Planning	The City of Swan will continue to implement WSUD and align with existing City and State Government Policies.
Potable water sources				
Facilities	*Procurement policies incorporate internal requirements to install better than the minimum 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 WaterMarked and Waterwise Approved products and services where possible.	Ongoing	Asset Management	Addressed within the Scope of Works.
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	Construction and Maintenance	Swan has a data management platform and is in the process of investigating how to include water consumption data for high consuming sites, which will assist with this action.





Waterwise Endorsement Action Table

Water Area	Corporate Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	Notes/Evidence
Non-potable water sources				
Monitoring	*Progress towards metering the take of water from all licenced groundwater bores using correctly installed and approved water meters.	Ongoing	Construction and Maintenance	This is standard practice for the City of Swan.
	*Develop a process to record your metered water take for each licensed groundwater bore at the end of each calendar month and submit recordings via Water Online to manage all of your water licensing and metering requirements.	Ongoing	Construction and Maintenance	The City currently follows a process to record monthly meter reads in an excel spreadsheet and submit to DWER each year. Next step is to utilise the Water Online website.
	*Maintain all meters in good working order and notify the DWER as soon as possible of detecting a malfunction of the water meter.	Complete & Ongoing	Construction and Maintenance	Ground water leak detection is included in inspections and reported or repaired if a leak is observed.

Water Area	Community Water Actions	Status (Complete/In Progress/Ongoing/To be Completed)	Department Responsible	Notes/Evidence
Education	*Engage with household and business ratepayers to promote water efficiency, waterwise gardens and how to be a responsible garden bore owner.	Ongoing	Sustainable Environment	Engage residents and businesses to promote water efficiency and conservation, including regarding waterwise gardens, via: <ul style="list-style-type: none"> • Running workshops as part of the annual Thinking Green, Nature know-how and library programs • Providing a Worm Farm Subsidy to residents and ratepayers including worm farming workshops to educate and equip residents to improve garden soil and protect water quality and river systems • Supporting workshops run by community gardens or supporting other organisations such as Your Garden with Josh Byrne.





Waterwise Endorsement Action Table

				<ul style="list-style-type: none"> • Attending events with the Mobile Environmental Awareness Unit, also known as the 'Kermit trailer', to engage the community and provide informative materials on water efficiency, water quality and water conservation. • Provision of information online and/or in hard copy form regarding verges (including the City's new document, Verge Guidelines, for guidance of greening and modification of residential verges) and Planting in different soil types <p>Participation in the Switch your thinking program which offers waterwise education and discounts for community members and businesses on materials and services such as pool covers, rainwater tanks and home energy and water audits. See: https://www.switchyourthinking.com/ways-to-switch/water/</p>
	*Provide information on the installation and local regulation of non-potable water supply (e.g. grey water systems and rainwater tanks)	Ongoing	Sustainable Environment	<p>Information available on the City's website and via phone/email:</p> <ul style="list-style-type: none"> • Rainwater tanks • Greywater systems • Be water wise - Waste water disposal • Public health - Waste water disposal
	*Engage with local schools on water efficiency and sustainability programs, including encouraging schools to participate in the Waterwise Schools Program .	Ongoing	Sustainable Environment	<p>Provide information to encourage schools to participate in the Waterwise Schools program and provide general information on water conservation, quality and efficiency, including via the City's website.</p>





Waterwise Recognition Scheme

Criteria for Gold Waterwise Council Status

Table 9: Updates on compulsory Gold waterwise actions

Gold Compulsory Action (as above)	Update/Evidence
All Aquatic Centres endorsed as Waterwise	<p>The City of Swan seeks re-endorsement of all aquatic centres annually. Currently all three aquatic centres are endorsed – Swan Active Beechboro, Ballajura, and Swan.</p> <p>https://www.watercorporation.com.au/Help-and-advice/Waterwise-business-programs/Waterwise-Aquatic-Centre-Program/Endorsed-Waterwise-Aquatic-Centres</p>
Waterwise Verge Policy or Guideline	<p>The City has developed Verge Guidelines which can be found at https://www.swan.wa.gov.au/Your-Property-Land/Boundaries-gardens-verges/Verges/Verge-information.</p> <p>The City also has Landscape Guidelines available on the same webpage.</p>
Established cross-functional Water Management Team	<p>The City of Swan Water Team meets to discuss water related issues and solutions. See attachments City of Swan Water Team Contact Details 2021 and Meeting Notes CoS water team – 4 March 2021.</p>

Water Sensitive Cities Goal Areas

The [Cooperative Research Centre for Water Sensitive Cities](#) developed the [Waterwise Sensitive Cities Index](#) to benchmark cities against a range of goals and indicators to show where cities sit in regards to becoming a Water Sensitive City (WSC).

See Figure 1 for the goals and indicators that you will need to inform your Gold Waterwise Council actions. For more information on how to progress your LGA towards creating a Water Sensitive City, visit <https://watersensitivecities.org.au/> or contact WEpartnership@watercorporation.com.au .



Waterwise Recognition Scheme

Figure 1: Water Sensitive Cities Goal Areas and Indicators

Ensure good water sensitive governance	Increase community capital	Achieve equity of essential services	Improve productivity & resource efficiency	Improve ecological health	Ensure quality urban space	Promote adaptive infrastructure
Knowledge, skills and organisational capacity	Water literacy	Equitable access to safe and secure water supply	Maximised resource recovery	Healthy and biodiverse habitat	Activating connected green - blue space	Diversify self-sufficient fit-for-purpose water supply
Water is key element in city planning and design	Connection with water	Equitable access to safe and reliable sanitation	Low GHG emission in water sector	Surface water quality and flows	Urban elements functioning to mitigate heat impacts	Multi-functional water infrastructure
Cross-sector institutional arrangements and processes	Shared ownership, management & responsibility	Equitable access to flood protection	Water-related business opportunities	Groundwater quality and replenishment	Vegetation coverage	Integration and intelligent control
Public engagement, participation and transparency	Community preparedness and response to extreme events	Equitable and affordable access to amenity values of water-related assets	Low end-user potable water demand	Protect existing areas of high ecological value		Robust infrastructure
Leadership, long-term vision and commitment	Indigenous involvement in water planning		Benefits across other sectors			Infrastructure and ownership at multiple scales
Water resourcing and funding to deliver broad societal value						Adequate maintenance
Equitable representation of perspectives						





Waterwise Recognition Scheme

Gold Waterwise Council Action Table

Table 10: Gold Waterwise Council Action Table

WSC goal	2021 – 2026 Gold Actions (minimum of 10 actions including those listed below)	Status (Complete/ Ongoing/ To be Completed)	Department Responsible	Update (including evidence if available)
Gold Mandatory Actions				
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. All of these programs allow a development to become endorsed as a Waterwise Development .	To be Completed	Strategic Planning	The City is investigating educational opportunities to encourage local developments and infill projects to be accredited.
Good Water Sensitive Governance	Support relevant parks and irrigation staff to complete Irrigation Australia's Irrigation Efficiency Course .	Ongoing	Construction and Maintenance	The irrigation course forms part of the Irrigation Trade Qualification. Additionally, relevant staff have the opportunity to attend an Irrigation Efficiency Course and this training is recorded in the staff training matrix which is accessible by staff through the intranet.
Increase Community Capital	Provide local planting lists for residents with waterwise species in line with the Waterwise Plant Directory	Ongoing	Asset Management	The City provides hard copy brochures and online information to the community regarding species to plant which suit local conditions and are waterwise. Planting in different conditions contains information on soil types in the City of Swan, 3 plant lists and a gardening guide and tips for growing local plants.
Ensure quality urban space	Provide active progress towards upgrading retrofitting local drainage sumps infrastructure to improve for community accessibility, amenity and environmental	Ongoing	Asset Management	Asset Management identify sumps/basins that need updating and assess the functionality, access,



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	improvement outcomes using Water Sensitive Design techniques.			amenity and environmental values of each one in order to develop plans. In some circumstances, it is possible to integrate a drainage sump into the surrounding land use to make it aesthetically pleasing as well as functional. For example, this was done recently at a basin located in the south western corner of Sanderling Grove and Kingfisher Avenue in Ballajura. It was possible to upgrade it to blend into the bush-like surroundings, which provided better community access and amenity, while also improving environmental outcomes.
Improve Productivity & Resource Efficiency	Encourage participation of public and private golf courses in the Department of Water and Environmental Regulation's Waterwise Golf Program	To be completed	Strategic Planning	Three currently located in the City of Swan: <ul style="list-style-type: none"> • Altone Park Golf Course • The Vines Country Club • Chequers Golf Club The City will advocate for and work with DWER to encourage golf courses within the City to participate in DWER's Waterwise Golf Program.
	Additional Actions			
Increase Community Capital	Community preparedness and response to extreme events. Distribute and share information with the community in regards to preparedness and response to extreme events.	Ongoing	Strategic Planning	Participation the EMRC's Swan and Helena River Flood Study including community awareness campaign. The 'Flood Aware Be Prepared' awareness campaign launched in winter 2021. Communicate with the community about extreme events via appropriate media channels.
Improve Productivity & Resource Efficiency	Work with developers to ensure all new City irrigated assets are efficient. This includes by ensuring the Landscaping Guidelines are up-to-date and contain the necessary information to guide developers to create	To be Completed	Asset Management	





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	water efficient public open spaces and verges which incorporate hydrozoning and native species.			
Improve Ecological Health**	Improve management of non-nutrient pollution through effective land use planning and compliance and further encourage appropriate design, sediment and waste control measures in the development process.	To be Completed	Statutory Planning	
Improve Ecological Health**	Groundwater quality and replenishment. Investigate opportunities with partners to divert suitable water to aquifer recharge.	To be Completed	Strategic Planning	
Improve Ecological Health**	Effectively manage fertiliser use on City managed land, and work with partners to encourage effective fertilizer use and riparian revegetation in the community.	Ongoing	Construction and Maintenance, Strategic Planning	Support Friends and Catchment Groups to improve riparian sites including via planting appropriate water filtering plants. Provide a Worm Farm Subsidy and Worm farming workshops to residents and ratepayers to educate and equip residents to improve garden soil and use worm farm products as fertilisers which typically have low impacts on river systems. Support Your Garden with Josh Byrne and other workshops such as those run by community gardens which educate the community about fertiliser wise gardening.
Improve Ecological Health**	Investigate and implement natural in-catchment and end-of-pipe treatment of storm water discharge wherever feasible.	To be Completed	Asset Management, Project Management	
Improve Ecological Health**	Healthy and biodiverse habitat. Continue program of foreshore rehabilitation in consultation with partners.	Ongoing	Project Management	Work is being planned and/or undertaken for the following sites: <ul style="list-style-type: none"> Wangalla Brook – Ongoing weed control and revegetation. Commencing stage 3 with follow-up works in stages 1 and 2. Upgrading of 13



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				<p>drainage outlets including rock pitching to address erosion.</p> <ul style="list-style-type: none">• Woodbridge Riverside Park – need to carry out site inspection once all works at Middle Swan Reserve is completed balance left in the budget is determined.• Middle Swan Reserve Foreshore – winter flooding has caused damage to restoration works. Contractors are currently cleaning up the debris, will be repairing fencing, removing silt from the compensation basin and undertaking infill planting. Other works dependent on budget will be to renourish the beach areas as sand has been washed away.
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Endorsement of Waterwise Council Action Plan		
City of Swan:		
a)	Will implement the water management measures stated in the Waterwise Council Action Plan and ensure employees and contractors assist in implementing actions.	
c)	Acknowledges that the Water Corporation and / or Department of Water and Environmental Regulation may comment on the Action Plan and/or request additional information relating to the Action Plan.	
d)	Acknowledges that the Water Corporation and Department of Water and Environmental Regulation will monitor the Action Plan and failure to meet requirements of the program may result in the withdrawal of Waterwise endorsement.	
e)	Will submit an annual report, in accordance with the Waterwise Endorsement Action Table, detailing progress made on the Action Plan in order to maintain endorsement as a Waterwise Council.	
Name		
Position		
Signature		Date
Water Corporation and Department of Water and Environmental Regulation Acceptance of the Waterwise Council Action Plan		
Water Corporation and Department of Water and Environmental Regulation has reviewed and accepted the Action Plan. With acceptance of this Action Plan City of Swan: will be eligible for endorsement/re-endorsement as a Waterwise Council.		
Water Corporation		
Name		
Position		
Signature		Date
Department of Water and Environmental Regulation		
Name		
Position		
Signature		Date

Please submit your endorsed Waterwise Council Action Plan to WEpartnerships@watercorporation.com.au.

For any questions, contact WEpartnerships@watercorporation.com.au or call (08) 9420 2114

