

State of the Environment Report

2020/21



Managing and protecting the City's natural environment

The City of Joondalup aspires to be a global leader in environmental management, working closely with the community to protect and enhance the natural environment, while celebrating and showcasing its natural assets to the world.

The City's *Environment Plan 2014 – 2019* and other environmental programs, strategies, and policies are developed and implemented in partnership with stakeholders and the community and focus on the sustainable use of natural resources, biodiversity conservation, energy and water efficiency whilst raising awareness of environmental issues within the City.

The City supports the community to take ownership of its natural assets and aid the ongoing preservation and conservation through education and active involvement in environmental initiatives, while encouraging and leading positive environmental behaviours within the community.

Overarching objective

To provide ongoing leadership in adaptive environmental management to ensure the sustainable use of natural resources and the conservation and enhancement of the City's natural assets for future generations.

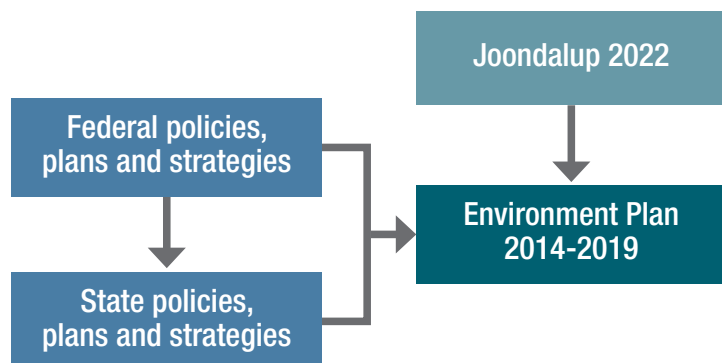
Strategic Planning Context

The *Environment Plan 2014 – 2019* supports the *City of Joondalup Strategic Community Plan – Joondalup 2022* and is informed by the key themes and objectives of this Plan.

Joondalup 2022 is the City's long-term strategic plan, outlining the City's commitment to achieving the vision and aspirations of the community and stakeholders in the region.

During 2020/21 the City commenced developing the new *Strategic Community Plan*, with community members and City stakeholders invited to participate; providing feedback on their values and what they see as the key challenges and opportunities for the City and the vision for the future. The outcomes of the consultation will be used to inform the development of the new *Strategic Community Plan*.

A new Environment Strategy will be developed following endorsement of the *Strategic Community Plan* in 2022. The *Environment Plan 2014 – 2019* will continue to be implemented until the development of the new Environment Strategy.



Objectives from *Joondalup 2022* to guide the management of the local environment into the future

- **Environmental resilience:** to continually adapt to changing local environmental conditions.
- **Community involvement:** to build a community that takes ownership of its natural assets and supports their ongoing preservation and conservation.
- **Accessible environments:** to develop an appreciation for local natural assets by providing appropriate access to natural areas.
- **Environmental leadership:** to embrace learning opportunities on an international scale and continuously lead by example in applying new knowledge.

The City's natural environment services budget for 2020/21 was \$3.8 million with 30 full time equivalent staff, including environmental planning, natural areas management, waste management and litter collection services.¹

State of the Environment Report

This *State of the Environment Report 2020/21* describes the initiatives taken to protect and enhance the City's natural environment and improve environmental sustainability during the past financial year. It provides a snapshot of the progress made in implementing actions and initiatives from within the City's *Environment Plan 2014 – 2019* as well as issue-specific plans (informing plans) across the areas of biodiversity, water, climate change, waste, and community involvement.



¹As detailed in the City of Joondalup *Corporate Business Plan 2020/21 – 2024/25* for the natural environment net service cost including depreciation.



Objective

To provide long-term protection and enhancement of the City's biodiversity through adaptive management and the delivery of targeted projects and programs.

This work is guided by the *Yellagonga Integrated Catchment Management Plan 2015-2019*, *Pathogen Management Plan*, *Bushfire Risk Management Plan*, *Weed Management Plan*, and *Natural Area Management Plans*.

Key achievements

- Installing interpretive signage at Central Park informing the community about local native wildlife, flora, and the Noongar seasons.
- Conducting flora and fauna surveys at Iluka Foreshore Reserve and Burns Beach Foreshore Reserve and conducting a flora survey at Shepherds Bush Reserve.
- Identifying the movement and concentration of contaminants within the Yellagonga Wetlands through ongoing monitoring of surface water and groundwater quality.
- Investing \$20,000 of funding provided by the Australian Government's Communities Environment Program in managing weeds and feral animals (foxes and cats) and managing revegetation sites.
- Undertaking a hazard reduction grass tree burn within Craigie Open Space Bushland to protect nearby residential properties and the City of Joondalup Leisure Centre – Craigie from the impact of a potential bushfire while minimising environmental impact.
- Planting 5,000 native seedlings in urban parks in Kingsley and Heathridge in partnership with Birdlife WA, increasing habitat for native birds and other fauna within the urban environment.

KPI's

- Density of environmental weeds was 9.52%, a decrease from 11.6% in 2019/20.
- Natural Areas Protected within City Reserves remains at 87.5% in 2020/21 - there was no change compared to 2019/20.
- Waste in natural areas was 8.46 items per hectare, a decrease from 11.5 items per hectare in 2019/20.



Density of Weeds

9.52%

Decreased in seven reserves.
Increased in five reserves.



Waste Present

8.46 items per hectare

Decreased in 5 reserves
Increased in 4 reserves
No change in 3 reserves



Natural Areas Protected within City Reserves

87.5%

No change



Vegetation Condition

Major Conservation Area – Shepherds Bush Reserve

% 'Good' or better (2015)

88.8%

% 'Good' or better (2020)

87.4%



Vegetation condition is rated according to the Keighery Vegetation Condition Scale below:

Completely Degraded	Degraded	Good	Very good	Excellent	Pristine
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Note: Vegetation Condition Index (VCI) and canopy cover key performance indicators for major conservation areas was measured and reported in 2019/20 and is due to be reported in the State of the Environment Report for 2021/22.







Objective

To manage the City's water resources in a sustainable manner in order to decrease water consumption, increase efficiency and improve water quality.

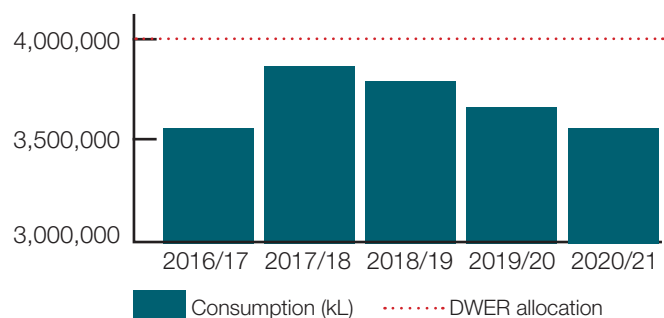
The *City Water Plan*, *Climate Change Strategy* and *Yellagonga Integrated Catchment Management Plan* provide a coordinated approach to manage water conservation and water quality within City operations and the community.

Key achievements

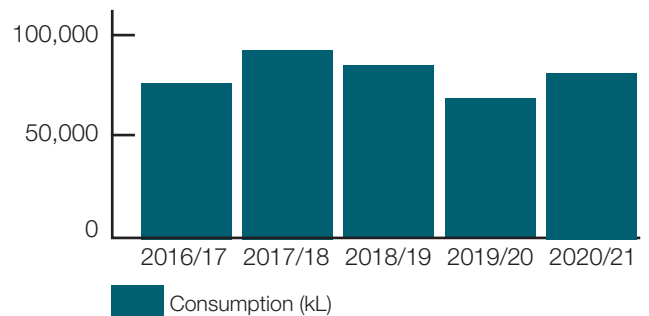
- Achieving Gold Waterwise Council accreditation and marking a 10-year milestone as an endorsed Waterwise Council.
- Achieving endorsement of the Craigie Leisure Centre as a Gold Waterwise Aquatic Centre.
- Installing water efficient fixtures and fittings in City buildings and facilities including waterless urinals in four City owned buildings.
- Completing the Moolanda Park, Kingsley upgrade as part of the Parks Redevelopment Program which included hydro-zoning, eco-zoning, redesigning irrigation systems and landscaping.
- Installing new irrigation controllers in the City's parks to enable remote monitoring and adjustment, saving water usage.
- Implementing the Yellagonga Water Quality Monitoring and Improvement Program.

KPI's

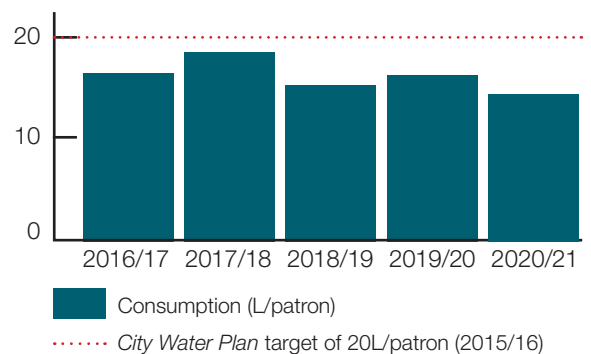
- Corporate groundwater use for 2020/21 was 3,566,858kL. This is a decrease of 2.4% compared to the previous year (2019/20) and is 16.62% below the current annual groundwater allocation limit set by the Department of Water and Environmental Regulation (DWER).



- The City's 2020/21 scheme water consumption was 77,106kL which is a 4.83% increase from 2019/20. Scheme water usage was lower in 2019/20 as compared to 2020/21 due to greater periods of facility closures and restrictions in 2019/20 from COVID-19 which reduced operational hours at Craigie Leisure Centre and community facilities. However, scheme water usage in 2020/21 was slightly lower than 2018/19.



- Craigie Leisure Centre scheme water usage for 2020/21 was 17,827kL which equates to a consumption of 14 L/patron. This is 29.6% below the *City Water Plan* endorsed target of 20 L/patron.





Climate Change

Objective

To reduce energy consumption and greenhouse gas emissions by the City and the community to mitigate the effects of climate change.

The City is taking steps to prepare and adapt to future climate change impacts through implementing its Climate Change Strategy and *Bike Plan*.

Key achievements

- Engaging the community to seek feedback on what the City's role should be in responding to the threat of climate change.
- Monitoring shoreline movements over time through the City's Coastal Monitoring Program.
- Implementing the Sand Bypassing Program from Sorrento Beach to Hillarys Beach.
- Purchasing carbon offsets to offset 100% of the City's fleet emissions – equivalent to planting 20,970 trees and shrubs.
- Avoiding 281 tonnes of CO₂ equivalent through the City's Renewable Energy Program
- Installing an additional 10kW solar PV system on the Joondalup Library. The City has solar PV systems located on a total of 18 City buildings and solar battery backup systems on two City buildings.
- Progressing the *Coastal Hazard Risk Management Adaptation Plan* through the development of a Cost Benefit Analysis to determine the validity of adaptation options.



Solar energy generated

1,203 GJ



Total greenhouse gas emissions

14,749 tCO₂-e

Total greenhouse gas emissions decreased by 31% in 2020/21 as compared to the baseline year in 2012/13.



Net greenhouse gas emissions

13,351 tCO₂-e

Net greenhouse gas emissions decreased by 17% compared to the baseline year in 2012/13.



Trees planted

3,047

Across the City in urban areas through the Winter Urban Tree Planting Program and the Leafy City Program.







Objective

To minimise waste to landfill through sustainable waste management practices which incorporate reduce, reuse, recovery and recycling principles.

The City's *Waste Management Plan 2016-2021* guides the City's waste management practices with the aim of minimising waste to landfill and informs long-term planning for waste management.

Key achievements

- Completing a *Local Government Waste Plan* for the Department of Water and Environmental Regulation outlining how waste services will be managed, to achieve consistency with the Waste Strategy and protect public health and the environment.
- Increasing bulk hard waste recycling of skip bins, mattresses and white goods to 5,291 tonnes of which 1,204 tonnes were recycled, meaning a diversion rate of 23%.
- Continuing to promote the Three Bin system with information stands, static displays, banners and social media posts.
- A total of 17,336 tonnes of garden organic waste were collected through the Three Bin system with 99.7% being recovered into compost and diverted from landfill.
- Delivering 135 waste education sessions to schools, day care centres and community groups.



Total Residential Waste Collected

77,727 tonnes

Total residential waste collected in 2020/21 decreased by 3.4% compared to 2019/20.



Percentage Waste Diverted from Landfill

52.6%

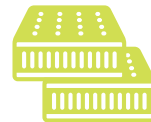
Decrease of 4.1% from 2019/20.



Bulk hard waste collection

4,637 tonnes

In skip bins.



191 tonnes

Mattresses.



462 tonnes

White goods.



14 tonnes

Clothing drop-off day.



28 tonnes

E-waste drop-off day.

Objective

To enhance community participation in environmental education initiatives and encourage community appreciation and ownership of the natural environment.

The City conducts an Environmental Education Program, targeting schools, residents and the broader community. Community education and engagement is an important component in all the City's environmental plans.

Key achievements

- Continuing to support the City's Friends Groups by providing native seedlings, attending planting days and producing a Friends Group newsletter.
- Assisting to establish three new Friends' Groups formed in 2020/21: The Friends of Duncraig Library Bushland, the Friends of Hillarys - Kallaroo Foreshore and the Friends of Central Park Bushland. The City now has 19 active bushland Friends' Groups.
- Implementing Adopt a Coastline and Adopt a Bushland Programs with five classes from three schools.
- Becoming a partner in the ClimateClever Program encouraging community members, schools and business to reduce energy, water and waste consumption.
- Delivering a series of free environmental activities relating to biodiversity, energy, water, waste, and transport, including a Native Bee Workshop, Living Smart Sustainable Food Gardens course and Bike Dr event.
- Distribution of a monthly Environmental News and Events e-newsletter promoting environmental events and initiatives to community members.



Native plants

10,000

Provided to Friends Groups.



Friends Groups

19

Operate in the City of Joondalup.



Total natural area managed by Friends Groups

336 ha

An increase of 60ha since 2019/20.



Satisfaction rate

100%

Of the 165 attendees of the City's environmental events, all were satisfied or highly satisfied.



Friends of Duncraig Library Bushland volunteers



Strategic Approach

Submissions to State and Federal Government

The City provides submissions to the State and Federal Governments on proposed plans, strategies and policies affecting local government. In 2020/21 the City prepared submissions on:

- Discussion Paper on the review of the *Waste Avoidance Resource Recovery (WARR) Act* – Department of Water and Environmental Regulation
- Draft State Coastal Planning Policy Guidelines – Department of Planning, Lands and Heritage
- Wastewater Overflow Notification and Response Procedure – Department of Health.

Existing and Emerging Challenges

Changing legislative and regulatory environment	<ul style="list-style-type: none"> • Shifting responsibilities from State to Local Government i.e. coastal hazard planning, bushfire mitigation, vegetation retention. • Amendments to legislation i.e. <i>Environmental Protection Amendment Act 2020</i> and Stage 1 proclamation. • Future reductions in groundwater allocations. • New waste management requirements i.e. <i>Local Government Waste Plan</i>, and State Government targets to reduce waste to landfill.
Climate change	<ul style="list-style-type: none"> • Increasing risk of natural hazards i.e. bushfire, weeds and coastal erosion. • Drying climate, increased temperatures and sea level rise. • Loss of biodiversity.
Increasing community expectations	<ul style="list-style-type: none"> • Action and leadership on climate change issues. • Sustainable approaches to weed management. • Managing urban development and vegetation retention. • Provision of education on key environmental issues.
Environmental planning	<ul style="list-style-type: none"> • Greater requirement for environmental considerations as part of developments, projects and events. • Increased requirement to advocate and provide input into State and Federal policy and legislation changes. • Balancing the retention of native vegetation with the need for developments.



Priorities for 2021/22

To achieve its priority and long-term objectives, the City will continue to develop, review and implement strategic management plans including:

- Commencing an Environment Strategy.
- Commencing a Waste Management Strategy.
- Finalising the *Yellagonga Integrated Catchment Management Plan 2021-2026*.
- Continue to develop the *Weed Management Plan*.
- Continue to develop the *Climate Change Plan*.
- Continue to develop the *Coastal Hazard Risk Management Adaptation Plan*.
- Continue to develop the *Iluka-Burns Beach Foreshore Reserve Management Plan*.

The City's natural environment services budget for 2021/22 is \$4.6 million with 30 full time equivalent staff, including environmental planning, natural areas management, waste management and litter collection services.¹

Stay connected with the City's environmental initiatives

The City welcomes and encourages the community to connect and participate in its environmental initiatives. To learn more about the City's events and news, follow the City on social media, and subscribe to the City's e-newsletter at joondalup.wa.gov.au

²As detailed in the City of Joondalup *Corporate Business Plan 2021/22 – 2025/26* for the natural environment net service cost including depreciation.



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