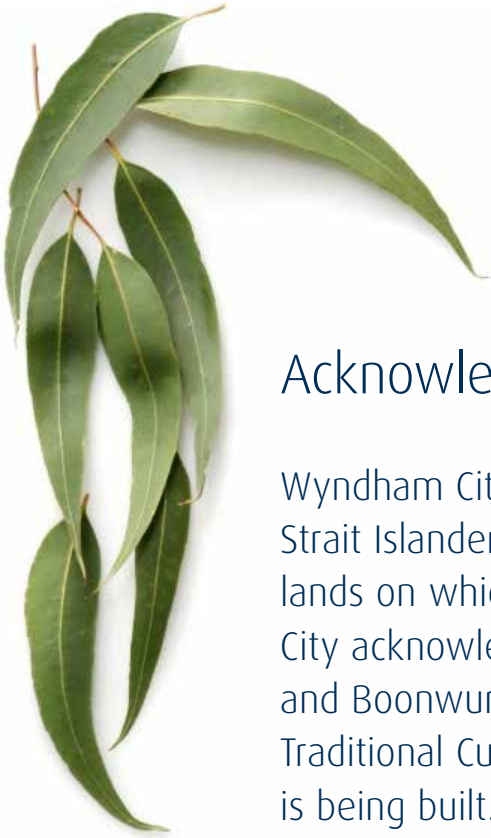




Wyndham City 2017-2018 State of the Environment Report Summary



Acknowledgement

Wyndham City Council recognizes Aboriginal and Torres Strait Islander peoples as the First Custodians of the lands on which Australia was founded. Wyndham City acknowledges the Wathaurong, Woiwurrung and Boonwurrung peoples of the Kulin Nation as the Traditional Custodians of the lands on which Wyndham is being built.

For tens of thousands of years, the Werribee River has been a significant meeting place for Aboriginal people to build community, exchange resources, and share responsibility for its lands.

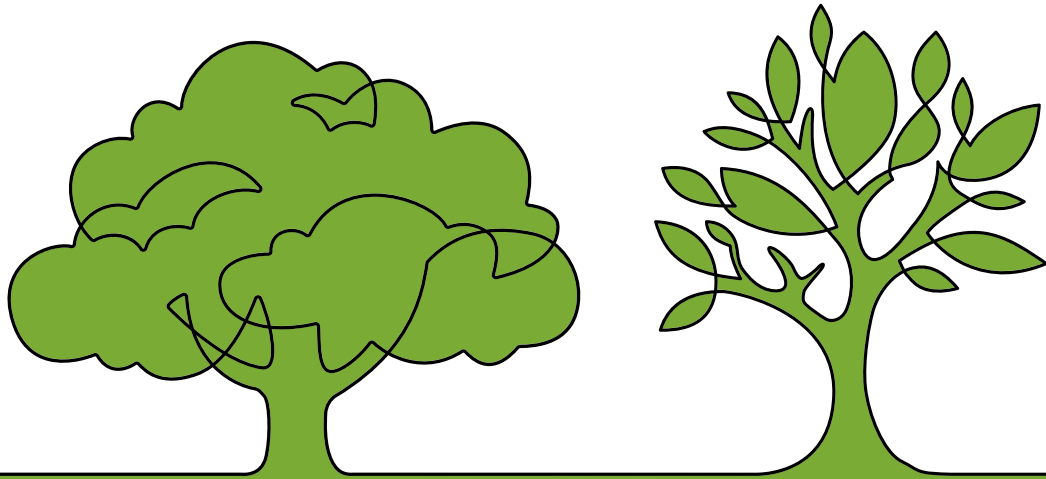
Wyndham City pays respect for the wisdom and diversity of past and present Elders. We share commitment to nurturing future generations of Elders in Aboriginal and Torres Strait Islander communities.



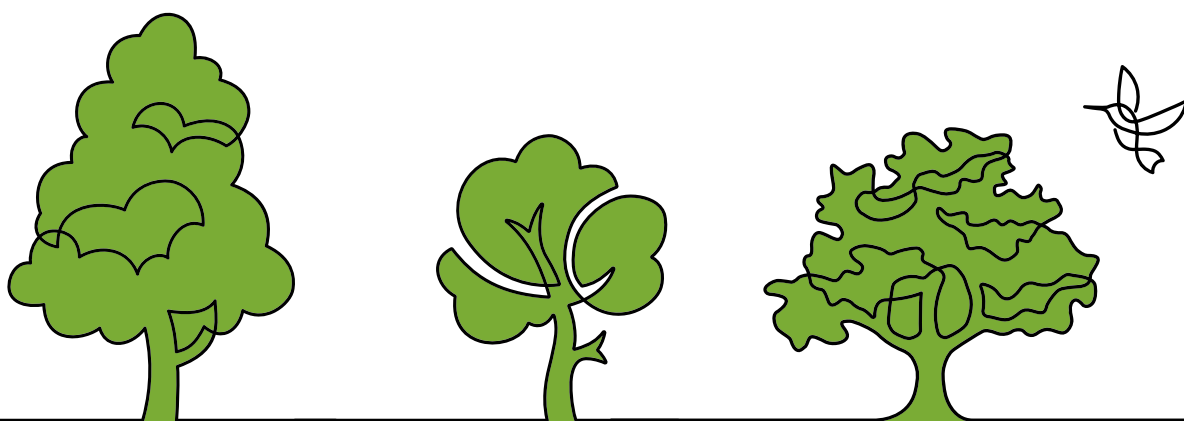


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The 2017/18 State of the Environment Report Summary provides a snapshot of Wyndham City Council's environmental achievements over the past twelve months, and demonstrates progress towards targets set out in the Wyndham City Environment and Sustainability Strategy 2016-2040 and Wyndham's Integrated Water Cycle Management Plan. It focuses on four focal areas of Sustainable City, Valuing Nature, Council Leadership and Integrated Water Management, providing highlights and case studies for each area.



This report summary complements Wyndham's State of the Environment Report 2017/18, which includes comprehensive information on Council's progress towards the targets of the above strategies. This report is available on the Wyndham City website **www.wyndham.vic.gov.au**

Wyndham City Overview

Wyndham is one of Melbourne's designated growth corridors and has one of the fastest growth rates in Victoria. The City of Wyndham's population forecast for 2018 is 257,028, and is forecast to grow to 489,379 by 2041. This increase in population has put strain on the natural environment and requires ongoing investment to keep up with demands for sustainable services and to ensure the ongoing health of our natural assets.

Wyndham is home to many significant waterways, wetlands, coastal areas and grasslands, such as the Werribee River, Skeleton Creek, the Port Phillip Bay coastline, the Truganina Cemetery remnant grassland, the Point Cook Coastal Park and the Western Treatment Plant Wetlands.





Sustainable City

Rapid growth and urban expansion has led to a number of environmental challenges in Wyndham, including growing congestion on our roads, increases in waste and planning for a changing climate.

Wyndham's work to support a sustainable city is diverse and reflective of the wide range and context of the Wyndham environment. This work ranges from community renewable energy to managing urban environments and sustainable transport infrastructure.

Wyndham's community are embracing renewable energy, highlighted by postcode 3029 ranking 15th for its uptake of solar energy in Australia. Our refuse disposal facility is increasingly diverting recyclable materials from landfill, and 32% of households now use green waste bins.

The natural environments within both the urban and rural areas have renewed focus through the development of the City Forest and Habitat Strategy, which sets actions and targets for habitat creation and tree canopy cover. Residents of Wyndham are becoming more active with 24km of additional shared or dedicated bike paths, and are embracing Wyndham City's Green Living Series, which has grown from just ten events in 2014 to a total of 38 events in 2018.

Planning for growth is a complex issue, and Wyndham is identifying how to best enhance our environment through the planning system. Planning controls to incorporate better environmentally sustainable design (ESD) features have been developed and are awaiting progression through the State planning system, with further controls to support protection of trees and natural assets under development.



Compost Revolution



540
RESIDENTS
ORDERED COMPOST
BIN/WORM FARMS,
AN INCREASE
OF 53%



SINCE PROGRAM
COMMENCEMENT
WE ESTIMATE THAT
235,255KG
OF FOOD WASTE
HAS BEEN DIVERTED
FROM LANDFILL,



SAVING OVER
375,679KG
OF CO₂ EMISSIONS.

Pop Up Recycling Day



313
RESIDENTS
TOOK PART IN THE
POP UP RECYCLING DAY,



DIVERTING OVER
11 TONNES
OF WASTE FROM LANDFILL

Solar in Wyndham



WYNDHAM RESIDENTS AND
BUSINESSES HAVE INSTALLED OVER

17,000KW
OF SOLAR SINCE 2014



AND REDUCED COMMUNITY
EMISSIONS BY ALMOST

40,000
TONNES

The 2017 Garage Sale Trail



93 HOUSEHOLDS, **09** GROUPS & **91** STALLS
WERE INVOLVED ACROSS WYNDHAM. IT IS ESTIMATED
4,159 PEOPLE IN THE COMMUNITY
PARTICIPATED IN THE EVENT.

Getting Around Wyndham



19 KILOMETRES

OF SHARED PATHWAYS AND

05 KILOMETRES

OF BIKE PATHWAYS WERE

CONSTRUCTED IN WYNDHAM IN
THE FIRST SIX MONTHS OF 2018.

Reverse Vending Machines

WYNDHAM CITY BECAME THE FIRST VICTORIAN LOCAL GOVERNMENT
TO INSTALL REVERSE VENDING MACHINES IN DECEMBER 2016.



**THE FOUR REVERSE VENDING
MACHINES COLLECTED**

46,031 ITEMS
DURING THE 2017/18
FINANCIAL YEAR.

Landfill Gas Conversion



**THE RDF HAS CAPTURED
75% OF THE GAS GENERATED FROM LANDFILL
FOR THE PAST 2 FINANCIAL YEARS.**

ONCE CAPTURED, THIS GAS IS CONVERTED INTO
ELECTRICITY AND FED BACK INTO THE GRID.



Sustainable City - Case Study

Waste Watchers

Inspired by the ABC's War on Waste series, 10 families from across Wyndham took part in Waste Watchers, a program to put the large amounts of waste leaving our households on a diet.

Over the four week period, participants were equipped with knowledge on how to reduce what they send to landfill and improve their recycling, through methods like composting, worm farms, keep cups, boomerang bags, soft plastics recycling and more.

Overall the group reduced their waste going to landfill by 68%. Key to this success was composting organic food waste through a worm farm or compost bin, recycling soft plastics at their local supermarket and improving their recycling knowledge. Not only did participants reduce their garbage but they also reduced the level of content in their recycling bins by 33% demonstrating that behavioural change can significantly impact the amount of waste generated.

**Overall the group
reduced their waste
going to landfill by**

68%

**Participants reduced
the level in their
recycling bins by**

33%





Sustainable City - Case Study

Gardening Champions Program at Saltwater Community Centre



In March 2018, the Gardening Champions program was launched at Saltwater Community Centre. The aim of this pilot project was to give participants the opportunity to learn how to cultivate their own food and to encourage positive social interaction within the community.

A group of 20 people were selected to join the pilot project to activate the community garden. Participants have been involved in a variety of activities including; cleaning up the gardens beds, installing irrigation systems, planting and undertaking weekly tasks to maintain the garden.

Activities were guided by local horticultural expert, Craig Castree from Edible Gardens, with the support from Council's Community Centre and Sustainability teams.

Permaculture has been the driving gardening philosophy where participants have been learning to implement alternatives to chemical fertilizers including companion planting and crop rotation. Another big learning for the group has been how to improve their dietary habits by growing their own food and the link between food, climate change and waste generation.

This has been a great opportunity for a diverse multicultural group to work together, learn from each other's culture and to continue to grow traditional produce.

We are looking forward to continuing with this program in 2018/19.



Valuing Nature

Wyndham is home to a number of significant waterways, wetlands, coastal areas and native grasslands. The security of our significant sites cannot be taken for granted as most native vegetation types they support have been cleared elsewhere and are now classified as endangered, vulnerable or depleted.

Wyndham City has had a new Green Wedge Plan incorporated into the planning scheme, and a Coastal Management Plan is currently being developed. This strategic work will set the broad direction for the use and management of these important landscape features. The City Forest and Habitat Strategy sets the long term direction for the management of our natural spaces.

Over the last financial year, Wyndham City has planted nearly 38,000 indigenous plants in conservation reserves and sowed over 100kg of native grass seed to help restore and maintain some of our critical local ecosystems. Council has also supported private landholders in Wyndham's rural areas to manage their land through our Land

Protection Grant Scheme, where 49 rural properties carried out weed control and revegetation projects to enhance the natural landscape. This scheme is growing each year as we try to preserve the endangered grassland ecosystems in our municipality.

Litter in our environment is an ongoing problem, however the community is taking a stand. Litter reports were up 25% in 2017/18 compared to the previous financial year. There has also been a 12% drop in litter and dumping in key sites across Wyndham, a result of amenity improvements and increased signage in these areas. A major upgrade of gross pollutant traps on our waterways, began in 2017/18, which will see even more litter captured before it enters our rivers and streams.



Clean Up Australia Day



43 GROUPS

PARTICIPATED IN CLEAN-UP ACTIVITIES ACROSS WYNDHAM IN CLEAN UP AUSTRALIA DAY, INCLUDING **22 COMMUNITY GROUPS, 02 BUSINESSES, 04 YOUTH GROUPS AND 15 SCHOOLS**

Greening Wyndham



477 PEOPLE

TOOK PART IN COMMUNITY PLANTING DAYS TO HELP PLANT

26,282 TREES.

Weed Management



2,477^{HA} OF RURAL WEED CONTROL

WAS SUPPORTED THROUGH WYNDHAM'S LAND PROTECTION GRANT SCHEME IN 2017/18.

Street Trees



IN 2017/18, **4,326 TREES WERE PLANTED**

IN STREETS AND PARKS ACROSS THE MUNICIPALITY.

Ecological Burns



04 PRESCRIBED BURNS

WERE CARRIED OUT IN WYNDHAM'S CONSERVATION RESERVES TO CONTROL WEEDS AND PROMOTE THE GROWTH OF INDIGENOUS FLORA SPECIES.

Indigenous plantings



37,584 LOCALLY INDIGENOUS SEEDLINGS WERE PLANTED AND

103 KG OF INDIGENOUS GRASS SEED SOWN

TO INCREASE BIODIVERSITY IN WYNDHAM'S CONSERVATION RESERVES DURING 2017/18

Habitat Heroes



80 HOUSEHOLDS TOOK PART IN THE HABITAT HEROES PROGRAM,



PLANTING OVER 9,130 INDIGENOUS PLANTS

AND INSTALLING NEST BOXES IN RESIDENTIAL YARDS. THIS HAS CREATED HABITAT GARDENS TO SUPPORT HABITAT LINKAGES IN URBAN AREAS.



Valuing Nature - Case Study

Creating Wyndham's Urban Forest

Trees play an important role in Wyndham, helping to keep Wyndham healthy and liveable. They enhance the streets, making them greener, safer and more enjoyable places to live. Once mature, street trees provide a wide range of benefits, including:

- Increasing property values
- Reducing the need for home heating and cooling
- Improving the look of the street
- Providing shade
- Providing clean air
- Improving the health and wellbeing of residents
- Creating homes for local wildlife
- Reducing the impact of our Urban Heat Effect

Wyndham is, however, recognised as having one of the lowest canopy covers of all Melbourne municipalities; it is currently estimated that around 35% of our nature strips have empty spaces that require planting to achieve full street tree cover.

To address this, Wyndham City has committed to creating an Urban Forest. Last year, we planted a total of 4,326 trees in our streets and parks in the older areas. All new developments are designed and planted with an aim to have tree lined streets and to meet our target of at least 25% canopy coverage by 2040.

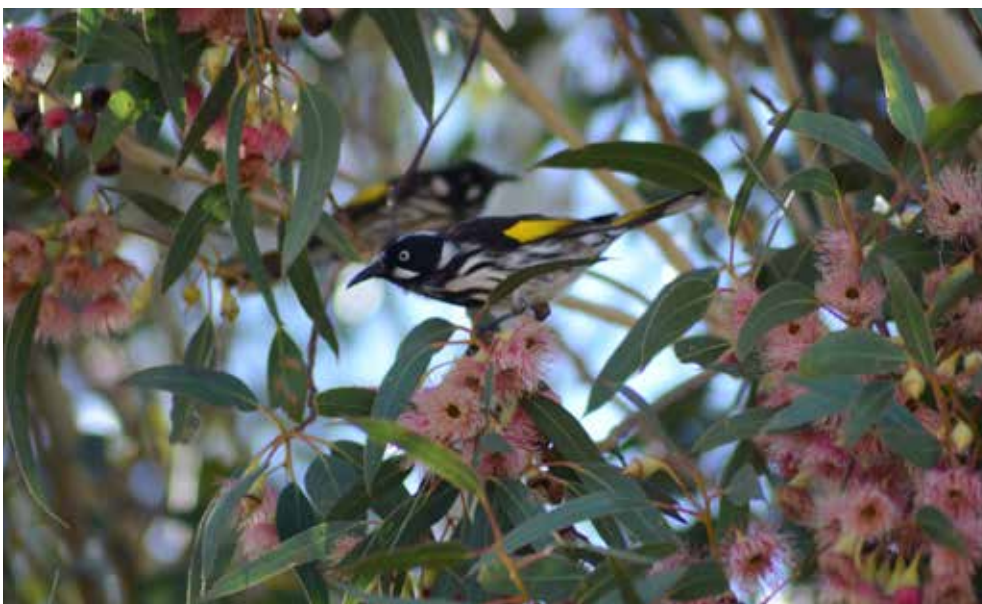
In the coming years, Wyndham will plant even more trees in our streets and open spaces to help us reach our targets, aiming for 7,000 new advanced trees in our streets each year.

In 2017/18 a total of

4,326
trees were
planted in our
streets and parks

It is currently
estimated that

35%
of our nature
strips have
empty spaces





Valuing Nature - Case Study

Land Protection Grant Scheme

Weed management in Wyndham's rural areas is a vast and complex problem, and has a significant impact on agricultural productivity and the environment. Common weeds in rural Wyndham include Serrated Tussock, Artichoke Thistle and African Boxthorn. Their control does not stop at the fence line and requires landowners to work together to reduce the impacts.

Integrated weed control uses a combination of management techniques to suppress the targeted weed species and promote desired vegetation. This may involve the use of strategic or exclusion grazing, slashing, herbicide application, and/or revegetation with native and non-native plants. Works must be undertaken at specific times of the year, depending on the life cycles of the targeted weeds.

Wyndham City offers support to rural landowners, through the Land Protection Grant Scheme, to assist in the challenging task of integrated weed control and sustainable land management.

During 2017/18, rural landholders were supported to control weeds on 2,477ha of land. This was achieved by providing direct financial assistance for landowners to conduct their own works, as well as through the engagement of specialist contractors to undertake weed control on a larger scale.

Wyndham City is committed to continuing the Land Protection Grant Scheme and landowner education programs, and will update the Weed Management Framework in 2018, which will provide a broader strategic approach to this issue.

**During 2017/18,
rural landholders
were supported to
control weeds on
2,477
ha of land.**



Council Leadership

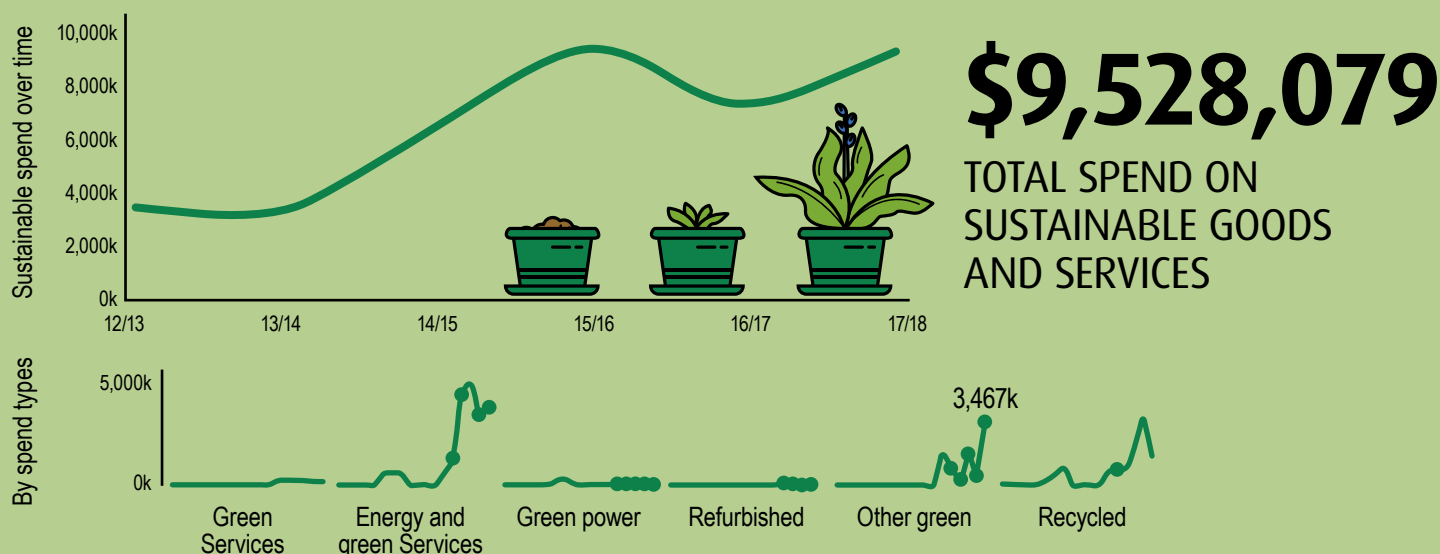
As an organisation that provides multiple services and manages buildings, open spaces, community facilities and events, Wyndham is in a great position to role model and showcase environmental principles and practice in the delivery of our work.

In a bid to improve Council's energy efficiency, hybrid vehicles have been purchased as part of our corporate fleet. Plug in hybrid SUVs have been trialled and are being assessed as a replacement for diesel vehicles. Wyndham is increasing resource recovery through improving recycling and green waste diversion throughout Council buildings and facilities to play our part in reducing the pressures on our landfill facility.

Wyndham's Environmentally Sustainable Design Framework (ESD) is being implemented through the design of the new Wyndham Aboriginal Community Centre and Integrated Family Centre, which will meet a 5-star rating under the Green Star specifications. During 2017/18 Wyndham delivered six minor building and refurbishment projects that were 100% compliant with the ESD Council Framework.



Sustainable Purchasing Summary 2017/18



Relative sustainable spend

4.8% OF TOTAL COUNCIL EXPENDITURE

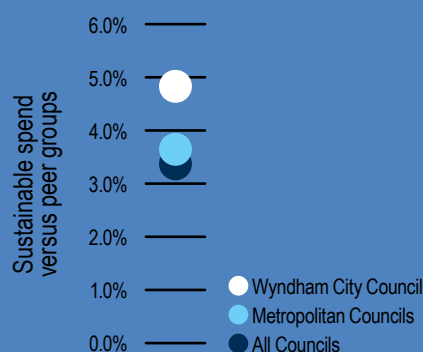
\$107 PER RATEABLE PROPERTY

Top 5 sustainable purchases

1. Computer equipment (green products)
2. Building and construction (energy)
3. Lighting
4. Vehicles (efficient)
5. Water savings (green products)

Demand Management

Disposable cups have been removed from Council's coffee shop, everyone is using reusable cups.



Environmental Savings

Savings from the purchase of compost, paper and mobile garbage bins, have contributed to environmental savings of:

0.2 HA
OF LAND

134 TONNES
OF CARBON DIOXIDE EQUIVALENT

Recommended Actions

Continue the solar program in 2018/19 with a focus on sporting pavillions and if possible, kindergartens. The target is 10 additional sites or 200kW installed capability.

Implement Stage 4 of the street lighting plan to replace inefficient streetlights with LED luminaires. Expected spend \$1.3 million (product purchase cost).

City Forest & Habitat Strategy 2017-2040



THE WYNDHAM CITY FOREST AND HABITAT STRATEGY WAS ADOPTED BY COUNCIL IN FEBRUARY 2018.

THE STRATEGY IS AIMED TOWARDS INCREASING WYNDHAM'S TREE CANOPY COVER AND HABITAT VALUES.

Council Fleet Vehicles

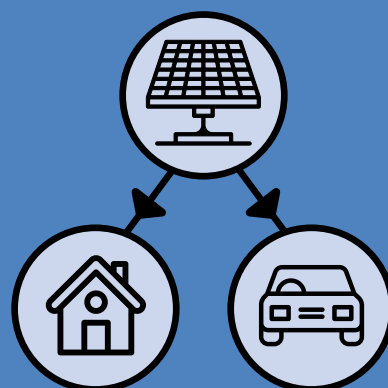


WYNDHAM HAS TRIALLED AND ARE CURRENTLY PURCHASING **TOYOTA COROLLA AND CAMRY HYBRID VEHICLES** TO ASSIST IN REDUCING OUR CARBON FOOTPRINT.

Large Scale Solar Project

A TOTAL OF **1,850** KW OF SOLAR PV PANELS HAVE BEEN FITTED ACROSS 33 COUNCIL BUILDINGS.

THIS COULD POWER **389** FAMILY HOMES AND IS EQUIVALENT TO THE EMISSIONS FROM **873** MEDIUM SIZED CARS.

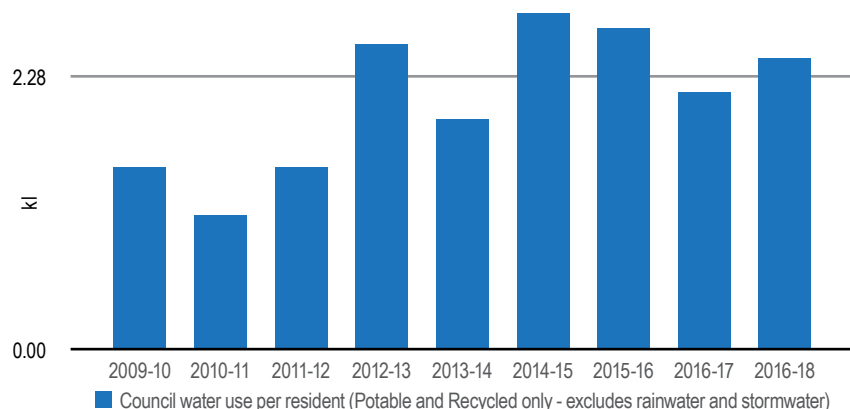


COUNCIL CURRENTLY HAS THE CAPACITY TO GENERATE **2,430,900** KWH P/A FROM RENEWABLE ENERGY.



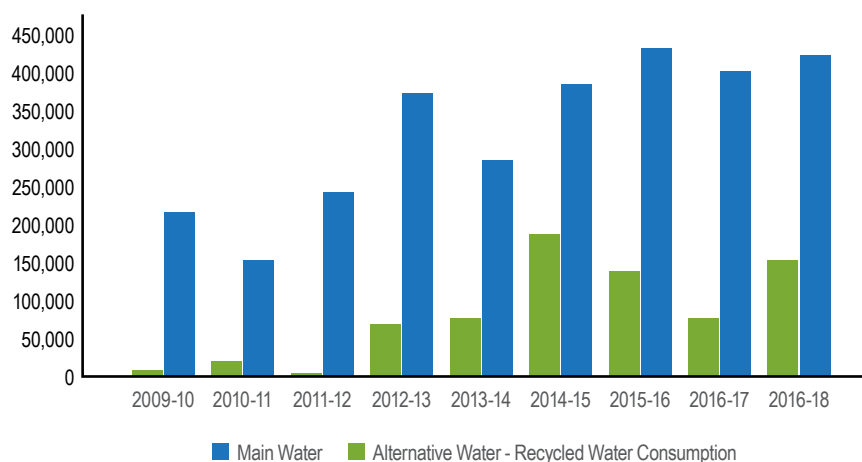
FINANCIAL SAVINGS OF **\$274,690** P/A ARE EXPECTED FROM COUNCIL'S LARGE SCALE SOLAR SCHEME.

Wyndham City Council's Water Use per resident



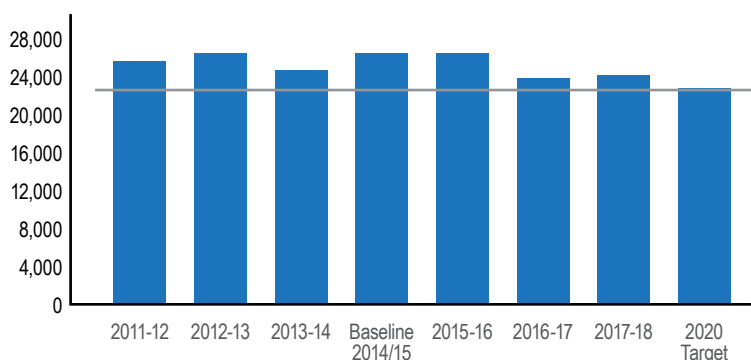
In 2017/18 Council's water efficiency was 2.52 kL/per resident which has increased compared to the 2.19 kL/per resident in 2016/17. This increase is largely due to the increase of Council's water use for sports fields irrigation and increase of building users.

Wyndham City Council's Water Use (Alternative Water Use vs Main Use)



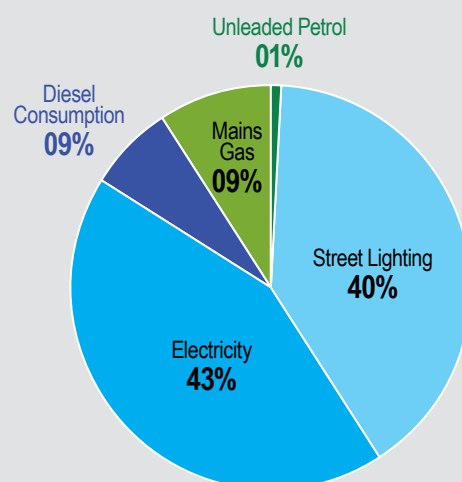
Alternative water supplies contributed to 26% of Wyndham City's water demand in 2017/18. Overall Council's water usage has increased by approx. 20% compared to 2016/17. The reason for this increase is a drier Spring in 2017 that required the use of more water for irrigation of active open spaces and the increase of users in Council buildings.

Council's Annual Greenhouse Gas Emissions (tonnes CO₂)



Even though Council experienced significant growth, greenhouse gas emissions from operations decreased by 8% or 2,069 tonnes in 2017/18. This has been achieved mainly through the bulk changeover to energy efficient streetlights. This reflects Council's resolve to realise its 2020 greenhouse reduction target of 12%.

Breakdown of 2017/18 GHG Emissions



In 2017/18 electricity consumption in Council buildings was the greatest contributor to Council's greenhouse gas emissions. This is the result of an increase in the number and use of community buildings.





Council Leadership - Case Study

Civic Centre Large Scale Solar System

Wyndham City's Large Scale Solar Project spanning over 30 Council buildings was rolled out in 2017/18. As part of this project, a huge 337kW solar system was installed at the Wyndham City Council Civic Centre in May 2018. The installation, including 1,144 solar panels that almost covered the entire roof of the Civic Centre, is expected to produce 443 mega-watt hours of energy per year. This is equivalent to an annual energy offset of 90 residential households.

Since the installation of the solar system, there has been a significant reduction in net energy use from the grid. Initial figures indicate around a 20% reduction when comped to the previous year for the site. These figures are expected to improve in the summer months when solar production is at its peak.

By the end of 2018/19, the Large Scale Solar Program will see over 2MW of solar and 386kWh of battery storage installed on Council buildings across Wyndham.

337^{kw}
solar system
was installed at
the Wyndham City
Council Civic Centre
in May 2018.





Council Leadership - Case Study

Smart Bins

Wyndham City was one of the first Council's in Victoria to install smart garbage and recycling bins. The 16 dual solar compactor bins are installed at various locations in the Werribee and Point Cook CBDs.

These smart bins have solar powered compacting technology so they can hold up to 600 litres of rubbish – five times that of traditional street bins. Powered by solar panels on top, the bins automatically crush rubbish inside, giving them the extra capacity.

The bins have sensors which notify Council when they are nearing full, which has resulted in them being emptied less often. Less trips by garbage trucks means cost savings and less pollution in our local environment.

In the first 12 months of operation:

- 441,871 litres of recycling was diverted from landfill;
- We are achieving 80% collection efficiency; and
- The average monthly collections for the bin dropped from 28 times per month to below 6- an impressive 80% reduction.

441,871
litres of recycling
was diverted
from landfill



Integrated Water Management

Traditionally, the urban water streams of potable water, wastewater, groundwater and stormwater have been managed separately to ensure a secure water supply, protection of human health, and protection from floods. However, the ability for these different management systems to deliver services is increasingly being challenged through things such as climate variability, population growth, and growing community concern on the health of their open spaces.

An integrated, strategic approach is therefore necessary. Integrated Water Cycle Management (IWCM) recognises the social, economic and environmental objectives of water in our communities and the shared responsibilities in delivering these objectives.

Wyndham City is implementing IWCM projects including improved planting specifications for our new street trees to help retain water in the root zones, advocating for the extension of the recycled water main to Werribee City Centre and a Water Sensitive Urban Design Plan to help Wyndham integrate the use and management of water as a critical component of urban development.

One aim of the IWCM is to improve collaboration and engagement with stakeholders. This is demonstrated through our partnership with Melbourne Water to deliver 'Greening the Pipeline'; the revitalisation of the Main Outfall Sewer. Wyndham is currently hosting the Coordinator of this project. Residents have also taken onboard ways to improve their water usage through the Green Living Series, for example the wicking bed workshop demonstrated how residents can use up to 50% less water in their vegetable gardens.





Integrated Water Management - Case Study

Protecting our Rivers and Creeks

Council has assessed the stormwater wetlands and litter traps along Lollipop Creek, Skeleton Creek and the Werribee River and a number were identified as not meeting current best practice for stormwater treatment and litter control.

As a result, Council has agreed to upgrade these assets with 9 wetlands and 11 litter traps to be upgraded over the next three years. We are currently in the process of completing the design requirements for these upgrades. In 2018/19 the first wetland to be upgraded is located at Flinders Crescent, Wyndham Vale (draining to Lollypop Creek). The first 2 litter traps to be upgraded are located at Bromage Close and Stephen Court in Hoppers Crossing (draining to Skeleton Creek).

**Wyndham cleans
and maintains more
than 30 stormwater
treatment wetlands
and 70 gross pollutant
traps (litter traps)
across the
municipality**



With thanks...

To the members of the Wyndham community for providing information for this report. Are you doing any environmental monitoring in Wyndham?

If so, we would like to hear from you!

Please contact Wyndham's Department of Environment and Water on **9742 0777** or **mail@wyndham.vic.gov.au**