



2015 – 16

SUSTAINABILITY REPORT



ACKNOWLEDGEMENTS

June 2017

This report was compiled by the Hobsons Bay Strategy and Advocacy department. For further information contact the Hobsons Bay City Council on 9932 1000 www.hobsonsbay.vic.gov.au

Council acknowledges all language groups of the Kulin Nation as the traditional owners of these municipal lands. We recognise the first people's relationship to this land and offer our respect to their elders past and present.

Council acknowledges the legal responsibility to comply with the *Charter of Human Rights and Responsibilities Act 2006* and the *Equal Opportunity Act 2010*. The Charter of Human Rights and Responsibilities is designed to protect the fundamental rights and freedoms of citizens. The Charter gives legal protection to 20 fundamental human rights under four key values that include freedom, respect, equality and dignity.

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EXECUTIVE SUMMARY

Sustainability reporting is Council's opportunity to highlight progress on actions identified in its suite of policies aimed at reducing greenhouse gas emissions, water use, waste generation and enhancing recycling. In 2011-12 Council commenced reporting to the community on its key environmental undertakings through the Sustainability Report.

This report documents Council's key environmental actions and measures progress for the financial year 2015-16. Trend data has been included for the previous six years to measure greenhouse gas emissions, water use, and waste generation and recycling.

Key achievements for the 2015-16 year include:

- adoption of Target 2265 – a four year emissions reduction plan
- residential solar power program saving over 825 tonnes of greenhouse gas emissions per year for over 170 households in our municipality
- approval for a two year trial of Environmental Upgrade Agreements (EUAs) for businesses in our municipality
- securing grants for on-ground conservation works to the value of \$62,000
- 17 advocacy submissions to a variety of Victorian government agencies

Council's Environmental Performance

In 2014, Council undertook extensive energy efficiency and renewable energy upgrades at the Altona Library. These works have placed this library at an industry gold star standard level in sustainability for a community facility and are projected to reduce the building's emissions by an impressive 95 per cent. Council used recycled resources and sustainable materials for the upgrades and engaged local professionals to undertake these works. Whilst the reduction of the building's emissions for 2015-16 is only eight per cent compared to 2014-15, the solar panels installed in May 2016 are anticipated to reduce the building's emissions by over 100 tonnes.

Greenhouse gas emissions for Council owned and occupied buildings, including some buildings that are operationally controlled by Council (for example Newport Gardens Early Years) have increased by six per cent compared to 2014-15. This increase is mainly the result of increased fuel usage.

In 2015-16, Council's water consumption increased by 47 per cent compared with the previous year. This consumption is comparable to Council's pre-drought water demand and is the result of what is described by the Bureau of Meteorology as 'the year of extremes' as 2016 was recorded as the fourth hottest year on record. The result is also due to a number of reserves being upgraded or the implementation of new irrigation systems.

In 2015-16 Council experienced an increase of one per cent in total waste collected from the previous year, which is attributable to an increase in the population of 0.7 per cent. Household garbage (1%) and hard waste (9%) collections both increased. There was improvement in Council's recycling rates over the previous year by 0.1 per cent along with a 0.2 per cent increase in the quantity collected through the garden waste service. The increase in hard waste is partly due to an increase of almost four per cent in the number of hard waste services delivered.

Community programs

Council continues to undertake a significant number of programs aimed at changing Council and community behaviour to meet sustainability targets. Council initiates projects aimed at protecting our biodiversity, managing waste, reducing greenhouse gas emissions and using water wisely.

Key achievements for 2015-16 include:

- providing approximately 600 native plants to new citizens as part of its citizenship ceremonies
- planting 18,775 plants in partnership with a range of community groups
- securing grants for on-ground conservation works to the value of \$62,000
- hosting Sustainability Victoria's Detox your Home event. A total of 103 people attended and 1.4 tonnes of household chemicals were recycled
- trialling seaweed recycling. The initial assessment of the trial was encouraging. Council is considering further options to reuse and recycle seaweed
- attracting 1,861 residents to participate in My Smart Garden workshops. The program delivered 21 events in our municipality with an average of 27 people attending each workshop and rating the workshops 9.6 out of 10
- installing solar panel systems for over 170 households through Council's residential solar program. This equates to 498kW of renewable energy capacity and a saving of 825 tonnes of greenhouse gas emissions per year
- getting approval for a two year trial of Environmental Upgrade Agreements (EUAs) to assist Hobsons Bay businesses to save money and improve their environmental performance
- holding 57 school events that included activities with both hands-on environmental work such as planting and seed collecting and educational sessions
- undertaking a range of community events and programs throughout the year including the following:
 - friends group activities (42 events)
 - community conservation events (42 events)

EXECUTIVE SUMMARY

- National Tree Day
- Karen Healthy Food and Living Program
- Altona North Community Strengthening Program
- World Environment Day – Volunteer Recognition Afternoon Tea
- Witness King Tides Program
- Schools Environment Education Program
- 2015-16 Sustainability Grants for Kindergartens
- 2016 Environment Grants Program

Council's future direction

Council continues to build upon these internal and external projects it completed during the 2015-16 financial year. The implementation of the Environmental Upgrade Agreement trial and the implementation of Target 2265 – a four year emissions reduction plan, along with starting work on Council's internal Sustainability Framework that will lead to greenhouse gas emissions and water reductions with associated reductions in operational costs.

1. INTRODUCTION



1. INTRODUCTION

This document is a report of Council's key environmental undertakings and the results of six years of measurement of greenhouse gas emissions, water use, waste generation and recycling to the end of June 2016.

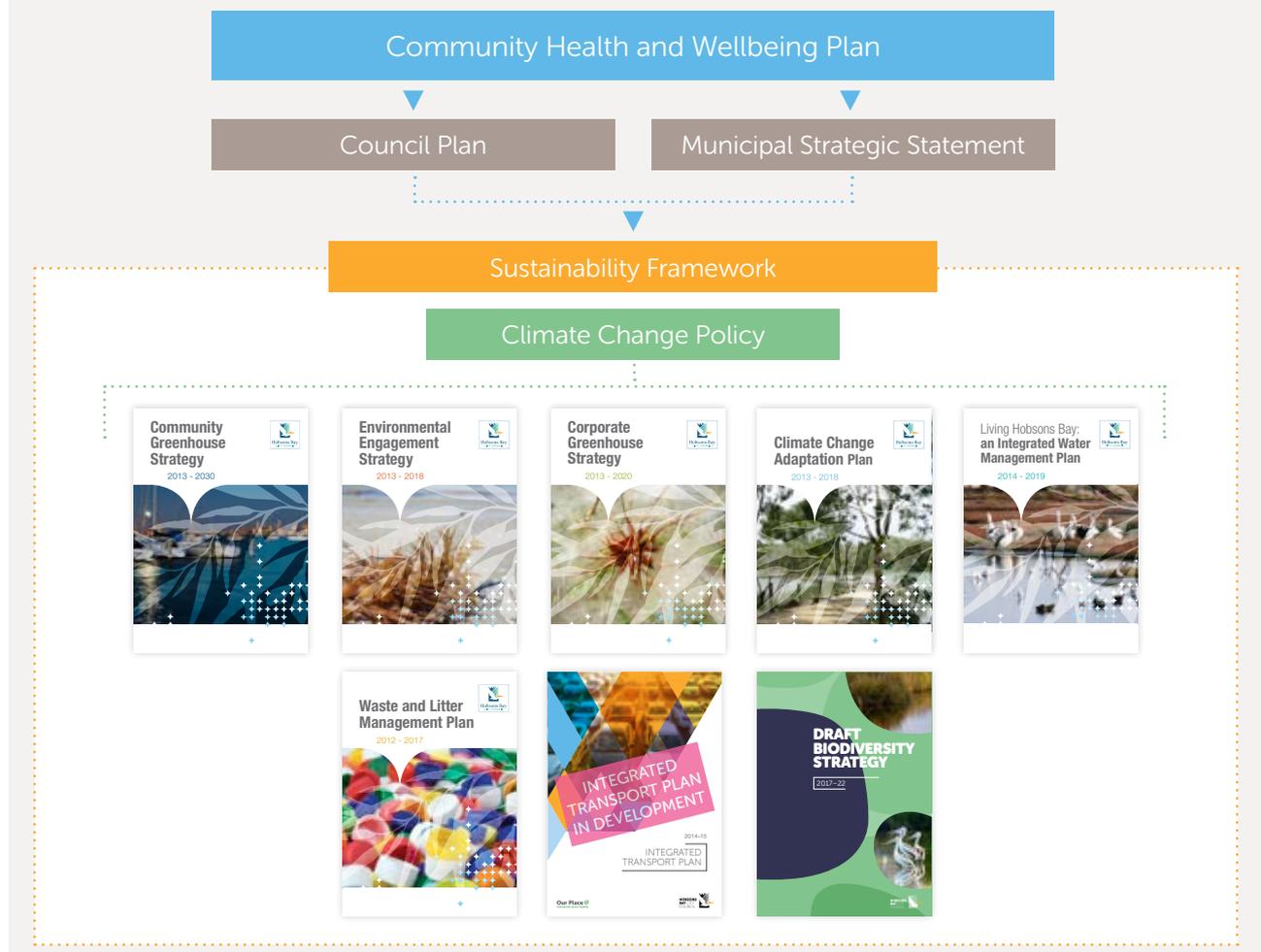
Council reviews its inventory of greenhouse gas emissions and water use annually based on available data. The results of these reviews are provided within the report.

Council also undertakes day-to-day activities and many projects to protect the municipality's biodiversity, manage waste, reduce greenhouse gas emissions and manage water more wisely. Some activities are ongoing and some are discrete projects developed to address specific issues. These projects are outlined in this document.

Council's commitment to sustainability is reflected in the Community Health and Wellbeing Plan 2013-17 and Council Plan 2013-17 goals. In addition, Council has a long-standing commitment to the environment evident through the Hobsons Bay Environment Strategy 2006-10, Climate Change Policy 2013 and a suite of strategic documents as indicated in Figure 1. Further strategic work includes a Biodiversity Strategy and an Integrated Transport Plan.

Figure 1

Hobsons Bay City Council's environmental strategies



2. STRATEGY DIRECTED PROJECTS AND ACTIVITIES FOR 2015-16



2. STRATEGY DIRECTED PROJECTS AND ACTIVITIES FOR 2015-16

Council's adopted strategies and plans contain aims and objectives that ensure a targeted approach to protect our municipality's biodiversity, manage waste and reduce our greenhouse gas emissions and water use.

A range of behaviour change activities are developed to support the community to take action on sustainability or biodiversity aspects. These projects and activities are guided by higher level strategies, particularly the Council's Community Health and Wellbeing Plan 2013-17 and Council Plan 2013-17 to ensure Council has a targeted approach to achieving its objectives.

2.1 Energy - Corporate Greenhouse Strategy 2013-20

Buildings

In accordance with Council's Corporate Greenhouse Strategy, Council has been working on reducing emissions from its buildings portfolio. The main focus has been the Altona Library which saw a reduction in emissions of 26 per cent since 2010-11 as a result of energy efficiency works including the replacement of the heating and cooling system in the public area in 2014-15. Further works in 2015-16 included the installation of natural ventilation, 63.22kW of solar panels and LED lighting. These works form a large part of how the building can achieve up to a 95 per cent emissions reduction for the building.

2.2 Biodiversity – draft Biodiversity Strategy 2017-22

Conservation activities

Council has planted approximately 15,425 tube stock. This tube stock includes 6,795 trees and shrubs and 8,630 ground cover plants. Revegetation projects were completed by Council staff and as partnership plantings with a range of local volunteer, resident and friends groups, school groups and local industry.

As indicated in Table 1, over the last eight years the total number of plants provided in conservation reserves was 127,198.

Table 1 Plants provided to conservation sites

Year	Plants provided
2008-09	15,165
2009-10	14,735
2010-11	16,700
2011-12	14,645
2012-13	15,920
2013-14	13,761
2014-15	20,847
2015-16	15,425
Total	127,198

Council secured grants for on-ground conservation works that included:

- Australian Government funding in 2015-16 for the delivery of projects in partnership with the Port Phillip and Westernport Catchment Management Authority – protecting the ecological values of the Port Phillip Bay – Western Shoreline Ramsar site
 - \$34,000 for the control of habitat-altering weeds, pest animal control and revegetation at Truganina Park, Altona Coastal Park and Paisley/Challis wetland
 - \$5,000 for the Dog's Breakfast event
- funding for weed control, revegetation and maintenance through Melbourne Water River Health Incentives Program including:
 - \$5,000 for Altona Coastal Park, Altona
 - \$8,000 for Laverton Creek, Laverton
 - \$10,000 for Friends of Skeleton Creek

2.3 Water - Integrated Water Management Plan 2014-2019

The irrigation systems at Comben Reserve, AB Shaw Reserve, Edwards Reserve, JT Grey Senior Reserve, PA Burns Reserve, Altona Green 1 and 2 Ovals, Robertson Reserve, Lohse Reserve, Paisley Lacrosse and Cooper Reserve were connected to the irrigation

2. STRATEGY DIRECTED PROJECTS AND ACTIVITIES FOR 2015-16

central control software system. This software allows the irrigation system to be monitored and controlled remotely and is designed to detect leaks and to shut down if a leak is detected.

2.4 Waste and litter - Waste and Litter Management Plan 2012-17

Council adopted its Waste and Litter Management Plan 2012-17 in August 2012. This plan sets the direction of waste and litter management for the municipality. The plan focuses on Council's areas of responsibility and aims to address the waste and litter management needs of Hobsons Bay over five years. The plan addresses waste and litter that Council has direct control over, or influence on, and includes kerbside waste and litter collection.

The following projects or activities were undertaken in 2015-16 to implement the plan.

Flexible Plastics Recycling

In 2015-16, Council was working to introduce flexible plastics into the kerbside residential recycling service. The joint project is in partnership with Boroondara City Council, Nillumbik and Cardinia Shire Councils, SKM Recycling (Council's recycling processing contractor) and the Metropolitan Waste and Resource Recovery Group (MWRRG). This project has been made possible through the Metropolitan Local Government Waste and Resource Recovery Fund provided by the Victorian Government from the Sustainability Fund.

Cigarette Butt Litter Reduction Project

Council received \$42,000 funding from the Department of Environment and Primary Industries through the Victorian Government's Cleaner Yarra River and Port Phillip Bay Litter Hotspot Project. The project involves implementation of best practice cigarette butt litter reduction activities using a variety of education, enforcement and infrastructure elements across litter hotspots in Williamstown, Altona, Laverton and Newport until July 2017. During 2015-16 audits were completed at cigarette butt litter hotspots along Pier Street, the Esplanade and Logan Reserve in Altona and at the Warmies in Newport. Based on these results, project planning and community engagement was also undertaken to inform future activities which were to include footpath decals, a review of cigarette butt bin infrastructure and the distribution of personal ashtrays and litter information cards to smokers which were scheduled in Altona and Newport in 2016-17.

Detox your Home

Sustainability Victoria's Detox your Home event was held at Council's Operations Centre in Altona on Saturday 28 May 2016. A total of 103 people attended and 1.4 tonnes of household chemicals were recycled. This is approximately 14 kilograms per person. The highest volume of products collected were flammable liquid and toxic chemicals. Most of the residents came from Hobsons Bay City Council and 58 per cent of the attendees were first time users of the service.

Garage Sale Trail

For the second year Council supported the national Garage Sale Trail program held on Saturday 24 October 2015. The aim of the event was to promote re-use, waste reduction to landfill, enable positive community interactions, assist groups to fundraise and stimulate local economies. Some key statistics of the event are as follows:

- 40 garage sale events across Hobsons Bay. By comparison, Wyndham City Council had 157, Moreland City Council 101, Monash City Council 86, Stonnington 75, Maribyrnong City Council 34, Greater Dandenong 31 and Hume City Council 27
- approximately 23,000 local items were listed for reuse
- 3,800 projected local community connections
- approximately \$15,000 projected funds were generated locally

Council will participate in the Garage Sale Trail program from 2017 to 2019.

Clean Up Australia Day

On Sunday 6 March 2016 approximately 450 community members joined in Clean Up Australia Day activities across 16 locations throughout Hobsons Bay. It was one of the biggest participations in Clean Up Australia Day for many years. Approximately 30 cubic metres of litter was collected. Council provided 11 skip bins for the collected rubbish and supported community groups at all the registered sites on the day.

Asbestos Awareness Month

Council promoted the National Asbestos Awareness month during November 2015. The campaign aimed to encourage the local community to visit the 'Asbestos Check' website, a collective of advice from Victorian Government agencies. Included is information to assist homeowners, tenants, employers and workers to

2. STRATEGY DIRECTED PROJECTS AND ACTIVITIES FOR 2015-16

understand the risks of asbestos, how to comply with their duties, and resources for managing and removing asbestos in homes and workplaces. The campaign involved Council providing brochures, displaying information in the Civic Centre, libraries and community centres, and information on Council's website and social media.

Civic Centre Centralised Bin System

Council's Civic Centre has been a certified Waste Wise location since 2009. The Waste Wise program is aimed at improving the way councils manage waste through waste minimisation and reuse and recycling of materials. Waste Wise is certified by the Metropolitan Waste and Resource Recovery Group (MWRRG). A key action in the Waste Wise Action Plan was the introduction of centralised bin systems, including the installation of new bins and signage at the Civic Centre, the Operations Centre and the libraries. Centralised bin systems have been proven to reduce resource loss and improve staff waste and recycling disposal behavior. During 2015-16 a centralised bin system was implemented in the Civic Centre.

Lighting recycling program

Council extended its residential lighting recycling program with Bunnings Altona, Toxfree Solutions and Simmers Hardware Williamstown to June 2017. The program began in 2010 and allows Hobsons Bay residents to drop off used lighting for free. The outcomes of Sustainability Victoria's review of its household chemical collection and the impact on Council's lighting recycling program will also be considered by Council.

Love Food Hate Waste program

In 2015-16 Council promoted the Victorian Government's Love Food Hate Waste program to raise awareness about avoidable food waste. Council promoted the program through social media, website, newspapers, newsletters and through printed material distributed at community centres, libraries, local cafes and traders.

Say No to Plastic Bags campaign

In 2015-16 Council initiated its 'Say No to Plastic Bags' campaign. The campaign aimed to create awareness about the impacts that plastic bags have on our local environment. It encouraged shoppers and retailers to reduce plastic bag use, use plastic alternatives and recycle their plastic bags through a variety of means while still providing a positive community shopping experience across Hobsons Bay. The campaign is not a ban on plastic bags. Council promoted the campaign via its website, social media, newsletters and local print media.

Boomerang Bags

In May 2016 Council committed to supporting local community groups to establish a Hobsons Bay Boomerang Bags community. Boomerang Bags is a community driven initiative tackling plastic pollution at the grassroots level. The Wader Beach Project community group, the Altona Village Traders Association, Hobsons Bay Men's Shed and Altona Country Women's Association have partnered to bring the Boomerang Bags movement to Hobsons Bay focusing their attention first in Pier Street, Altona. Boomerang Bag sharing boxes will be made by Hobsons Bay Men's Shed, a local community group. Each box is stocked with re-useable Boomerang Bags made by community volunteers for customers to borrow if they have forgotten their own and to return on subsequent visits. The availability of free, re-useable bags reduces the need for single-use plastic bags.

Support to local community groups

During 2015-16 Council provided a variety of support to other local community groups with their activities. This includes the Altona Beach Patrol, Western Shorelines Litter Alliance and Wader Beach Project. Council has supported Altona Beach Patrol by providing an environmental community grant, clean up equipment, promotional material and removal of rubbish for the groups' clean-up days. The Alliance is in its infancy, Council has provided facilities for meetings and has committed to supporting it in the future.

Review and extension of the recycling processing contract

Council has a contract with SKM Recycling to process the recyclables collected from the yellow 240 litre bins that are collected fortnightly by Council. Council's current recyclables processing contract with SKM Recycling, which began in 2011, was due to expire in February 2017. There are three one year contract extensions available at Council's discretion. Council receives income for its recycling, which is important for the delivery of Council's waste and recycling services and Waste and Litter Management Plan. Over the past decade there has been a quantum shift in the pricing for recyclables delivered by Victorian councils to recycling processing operators. The economic downturn in China and low oil prices has had a major bearing on the change in the prices of recyclables. As a result in 2015-16 Council undertook a review of the contract to consider options whether to extend, retender or enter into a regional shared contract. Under the current market conditions, the review recommended extending the contract for one year with SKM Recycling, until February 2018.

2. STRATEGY DIRECTED PROJECTS AND ACTIVITIES FOR 2015-16

Seaweed recycling trial

Council disposes most of the seaweed collected to Wyndham City Council's Refuse Disposal Facility. Council's current arrangement with Organic Technologies, a fertiliser manufacturer, recycles a small proportion of the seaweed. To increase seaweed recycling in 2015-16, Council trialled seaweed recycling with Veolia Environmental, Council's garden waste processing contractor. The initial assessment of the trial was encouraging and Council is considering further options to reuse and recycle the seaweed.

Waste Management Financial Reserve Policy

During 2015-16 Council prepared guidelines to manage and guide decisions to fund programs and initiatives from a Waste Management Financial Reserve which was established in 2012 when the Waste and Litter Management Plan was adopted by Council. The Waste Management Financial Reserve Policy was adopted by Council on 14 June 2016.

Surveys of garbage, recycling and garden bins

In 2015-16 Council undertook a survey of residential waste, recycling and garden waste bins to help Council understand household waste disposal and recycling actions. Households and bins were selected randomly and the survey was conducted under strict privacy conditions. Results of the survey will be used in an aggregated form to improve education, infrastructure and services with the aim of increasing and improving the quality of recycling and reduce waste to landfill.

3. REGIONAL INITIATIVES



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3.1 Greening the West

Council is a partner with City West Water, local western councils and Victorian Government organisations to create more liveable suburbs, a cleaner environment and contribute to improved community health. Greening the West aims to positively impact the health status, climate and environment of Melbourne's west by increasing the tree canopy cover and vegetation through its suburbs.

One million trees

Council participates in an initiative lead by LeadWest with an aim to plant one million trees across the western suburbs of Melbourne. The program is an ongoing grant for the purchase of plants and materials for revegetation projects. Supported projects include National Tree Day at Truganina Park and revegetating the industrial buffer zone to the north of Cherry Lake.



3.2 Western Alliance for Greenhouse Action

Council is an active member of the Western Alliance for Greenhouse Action. This alliance includes western suburb municipalities that work jointly on regional climate change mitigation and adaptation initiatives to reduce the potential impact and outcomes of climate change.

3.3 Association of Bayside Municipalities

Council is a member of the Association of Bayside Municipalities (ABM). The ten councils of the ABM work together to actively manage and maintain the Port Phillip Bay coast to achieve the highest levels of community benefit by protecting and enhancing the social, economic and environmental values of the bay.

4. COUNCIL'S ENVIRONMENTAL PERFORMANCE



4. COUNCIL'S ENVIRONMENTAL PERFORMANCE

Council's commitment to environmental sustainability is reflected in the Community Health and Wellbeing Plan 2013-17 and Council Plan 2013-17 goals.

With this in mind, Council will continue to work to improve its own environmental performance, to 'lead the community'. Council will also continue to provide targeted assistance to raise environmental awareness and empower the community to live more sustainably.

4.1 Greenhouse gas emissions

In 2015-16, Council greenhouse gas emissions increased by six per cent compared with the previous year as highlighted in Figure 2.

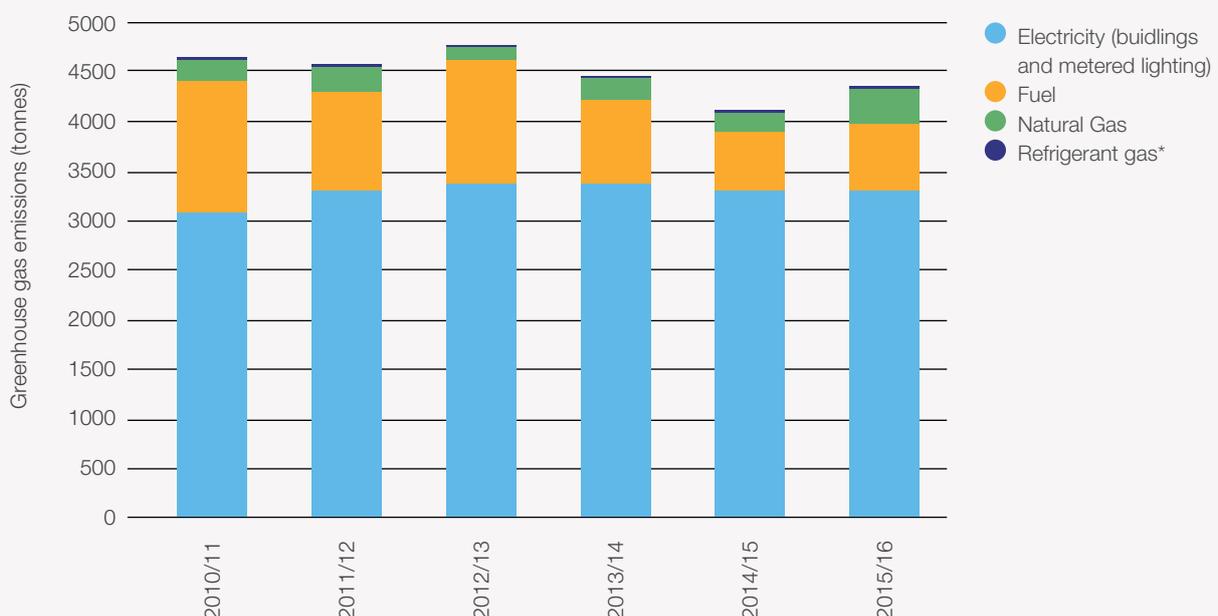
Council is committed to becoming a zero net emissions organisation by 2020 as outlined in Council's adopted Corporate Greenhouse Strategy 2013-20.

During the 2015-16 financial year Council completed works to the Altona Library. These works included the installation of natural ventilation, LED lighting and solar panels. Once LED lighting is completed to the remaining areas, the building will be on course to be carbon neutral. This has the potential to be world leading and provide evidence that Council is committed to its zero net emissions target.

To improve Council's position to achieve zero net emissions, Council adopted a new approach to reducing its emissions, in the form of Target 2265 – a four year emissions reduction plan. The figure of 2265 is the amount in tonnes of carbon dioxide and equivalent emissions that Council can reduce. This is 50 per cent of Council's total corporate emissions which is 4530 tonnes of carbon dioxide and equivalent emissions. Target 2265 identified and prioritised the installation of solar power systems on several Council buildings over the next two years. Other identified works included lighting upgrades and changes to Council's vehicle fleet. These works are currently being undertaken. Council will also be dedicated to research and the consideration of new technologies and renewable energy investment options in order to achieve its zero net emissions goal.

Figure 2

Hobsons Bay City Council Energy Use between 2010 to 2016



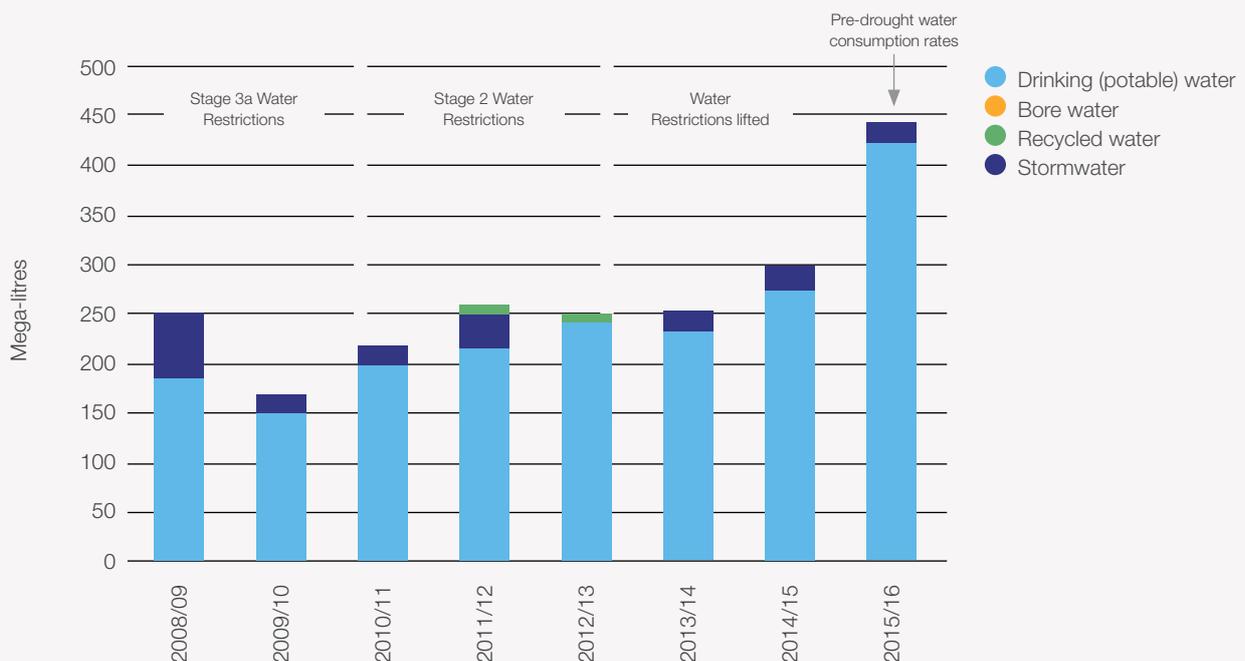
4.2 Water consumption

In 2015-16, Council's water consumption increased by 47 per cent compared with the previous year as highlighted in Figure 3. This consumption is comparable to Council's pre-drought water demand. This is due to the increase in areas of open space that were reconnected to irrigation in 2015-16. Importantly, it is the result of what is described by the Bureau of Meteorology as 'the year of extremes' as 2016 was recorded as the fourth hottest year on record. In the context of climate change, it is anticipated that this increase in temperatures will remain which highlights the importance of implementing adaptation strategies.

Council will endeavour to maximise the use of its stormwater harvesting systems, ensure water consumed is from a source that is fit-for-purpose and apply water conservation measures wherever practical. Council's current practices will focus on ensuring the continuous improvement to deliver on the key priorities identified in Council's Integrated Water Management Plan 2014-19.

Figure 3

Hobsons Bay City Council Total Water Use between 2008 to 2016



4.3 Waste and Litter

Waste generation in Hobsons Bay is increasing as demonstrated in Figure 4. This is attributable to the increasing population (0.06%) within our municipality from increased housing developments. In 2015-16 there was a marginal increase (1%) in total waste collected from the previous year. Household garbage increased by one per cent while waste collected through hard waste services increased by nine per cent.

While an increase in the number of collection services may account for higher quantities being collected, it also demonstrates that the community does not appear to be changing its behaviour to avoid the waste being generated in the first instance or reduce the amount of waste. Council has a role in targeting its educational programs to assist the community to reduce waste generation and litter and driving behaviour change, which it will continue to undertake.

Figure 4

Hobsons Bay City Council Total Waste Collected from 2001 to 2016



5. GREENHOUSE GAS EMISSIONS



5. GREENHOUSE GAS EMISSIONS

Greenhouse gas emissions have remained relatively stable over the last five years although overall emissions for 2015-16 have increased by six per cent compared to 2014-15.

This is mainly due to:

- a two per cent increase in electricity emissions from Council buildings and metered lighting
- a 40 per cent increase in natural gas emissions from Council buildings
- 13 per cent increase in fuel use

It is anticipated that next year's emissions will be reduced through the implementation of Council's Target 2265 plan. Council will install over 200kW of solar power on libraries and community hubs, which has the potential to reduce emissions by over 315 tonnes, or 13 per cent of Council's 2265 target. These solar power systems will also benefit Council through reduced electricity bills.

5.1 Overview

Council reports its emissions and energy consumption using the National Greenhouse and Energy Reporting (NGER) scheme, a legislated framework within Australia

The NGER framework prescribes the emissions that are deemed to be within Council's control. This includes fuel use from Council fleet vehicles (i.e. Council depot vehicles), other corporate fleet vehicles (such as pool vehicles) and volunteer vehicles. It also includes natural gas use, refrigerant gases, electricity use for buildings and non-street lighting (also referred to as metered lighting). In total, this accounts for approximately 4,358 tonnes of greenhouse gas emissions in 2015-16.

It excludes items that are outside of Council's direct control, such as community household waste, community green waste, electricity used for street lighting, air and taxi travel and paper use. It also does not include the extraction, production and transportation of energy for electricity, gas or fuel. However, as part of best practice reporting standards, these emissions were measured as part of Council's 2010-11 overall baseline inventory and will be

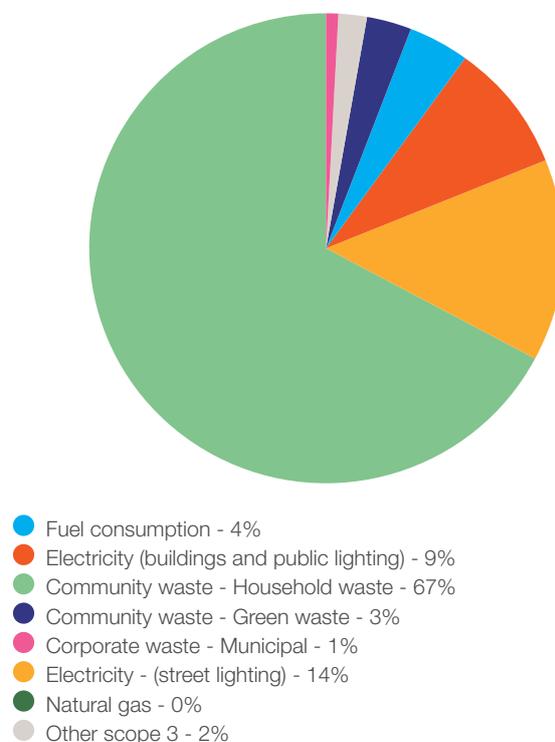
monitored and updated periodically.

In total, all of these emission sources account for 36,972 tonnes of greenhouse gas emissions per annum. This overall baseline inventory is captured in Figure 5 and demonstrates the relatively small proportion that Council is directly responsible for under the NGER accounting format.

Corporate waste is difficult to quantify with accuracy due to complex collection arrangements. However, it is estimated to be approximately one per cent of Council's total greenhouse gas emissions.

Figure 5

Hobsons Bay City Council greenhouse gas emissions 2010-11



5. GREENHOUSE GAS EMISSIONS

5.2 Emissions in 2015-16

Table 2 and Figure 6 demonstrate that emissions from the various types of fuel consumption, associated with Council's corporate operations account for approximately 22 per cent of total emissions. It also demonstrates that electricity from lighting and buildings accounts for almost 75 per cent of total emissions.

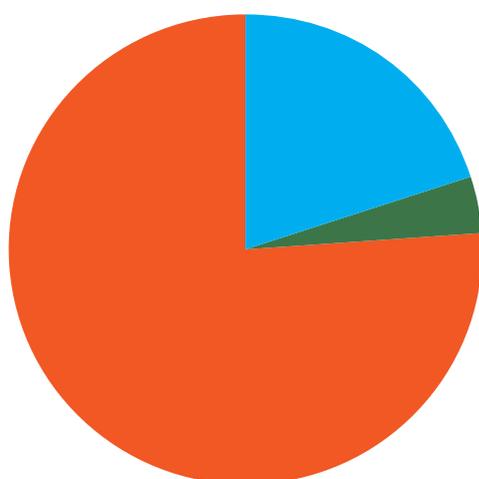
Together, emissions from electricity use and fuel consumption constitute 97 per cent of the total emissions for Council. The remainder of emissions, approximately three per cent, are from natural gas consumption and refrigerant gas leakage from fridges and vending machines.

Table 2 Hobsons Bay City Council total emissions 2015-16

Emission sources	Greenhouse gas emissions (tonnes)
Electricity (buildings and metered lighting)	3,161.80
Fuel (scope 1 emissions only)	964.12
Natural gas	231.24
Refrigerant gas	1.56
Total Council greenhouse gas emissions	4,358.72

Figure 6

Hobsons Bay City Council greenhouse gas emissions 2015-16



- Fuel consumption - 20%
- Electricity (buildings and public lighting) - 75%
- Natural gas - 3%
- Refrigerant gas - 0%

5.3 Trends

Measurements have been undertaken based on data for the financial years of 2010-11 to 2015-16. Table 3 demonstrates that during these years:

- total building and metered lighting emissions (electricity) have remained mostly consistent since 2011-12, despite the addition of Laverton Community Hub, Newport Gardens Early Years Centre and Williamstown Library to Council's buildings portfolio
- natural gas emissions have been increasing since 2012-13 due to the addition of the Laverton Community Hub and Williamstown Library buildings. Compared to 2014-15, natural gas has increased by 40 per cent, which is attributable to increased use at the Civic Centre, Laverton Hub and Newport Gardens Early Years Centre buildings
- fuel emissions have increased by approximately 13 per cent, this can be attributable to the procurement of seven Izuzu vehicles the previous financial year. It should be noted that biodiesel was unavailable this financial year

Table 3 Hobsons Bay City Council total greenhouse gas emissions

	'10-'11	'11-'12	'12-'13	'13-'14	'14-'15	'15-'16
Source	Greenhouse gas emissions (tonnes)					
Electricity	3,063.13	3,385.79	3,438.87	3,333.40	3,087.32	3,161.80
Fuel	1,380.92	1,018.25	1,135.94	936.43	851.21	964.12
Natural gas	127.87	127.12	111.46	141.70	164.81**	231.24
Refrigerant gas*	1.56	1.56	1.56	1.56	1.56	1.56
Total greenhouse gas emissions	4,573.48	4,532.72	4,687.83	4,413.09	4,104.90	4,358.72

*Refrigerant gas estimated. Data carried over from 2010-11.

**These figures differ from previous Sustainability Reports. Billing data was obtained for the Williamstown Library and Laverton Hub which both began operation in the 2012-13 and 2013-14 financial years respectively.

Buildings and metered lighting

Figure 7 shows that electricity-based emissions from the two sources (buildings and metered lighting) are consistently between 3,000 and 3,500 tonnes per financial year. Metered lighting refers to lighting in reserves, car parks, sports fields and other council properties. It does not include street lights.

5. GREENHOUSE GAS EMISSIONS

Figure 7

Buildings and metered lighting emissions 2010-11 to 2015-16

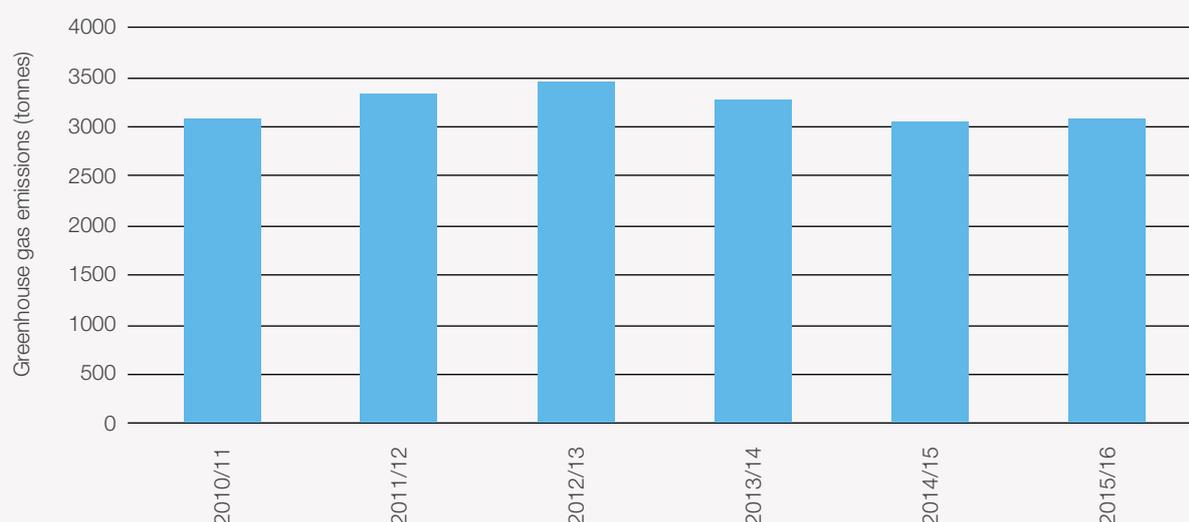


Table 4 shows that Council's top 10 buildings have continuously contributed more than half Council's total emissions. The buildings section consists of those owned and operated and some Council owned but leased.

The Civic Centre building is the highest emitting building. The Altona Meadows Library is the second highest

emitting building with a consistent energy use trend for the past four financial years.

Energy efficiency works have been offset by the addition of new buildings to Council's operations. Increases are a result of a variety of factors such as increased use of buildings for more evening bookings.

Table 4 Hobsons Bay City Council top 10 building based greenhouse gas emissions (gas and electricity combined)

	Building	2012 - 2013	2013 - 2014	2014 - 2015	2015 - 2016	Percentage change from last financial year
1.	Civic Centre	993.55	893.78	895.89	902.54	+0.74
2.	Altona Meadows Library	290.73	293.92	295.37	293.58	-0.06
3.	Williamstown Library	232.88	282.03	190.47	192.80	+1.22
4.	Williamstown Town Hall	168.48	173.66	200.04	180.42	-10.87
5.	Altona Library	208.53	199.90	177.55	164.00	-8.26
6.	Lorraine Bedella Senior Centre	138.55	122.5	148.67	161.46	+8.60
7.	Altona North Library	181.56	166.62	152.13	136.85	-11.11
8.	Operations Centre	120.23	119.86	84.51	111.62	+32.07
9.	Newport Gardens Early Years Centre	-	-	85.77	95.35	+11.11
10.	Laverton Hub	-	44.70	44.22	76.53	+73.06
	Total	2334.51	2296.97	2274.62	2315.15	+1.78
	Per cent of Council's total emissions (4,358 tonnes)				53 per cent	

5. GREENHOUSE GAS EMISSIONS

Transport

As demonstrated in Table 3 through the use of fuel, that there has been a decrease in transport related emissions between 2010-11 and 2015-16 of 418 tonnes (30%). Overall emissions in 2015-16 are consistent with those of the 2011/12 and 2013/14 years which is illustrated in Figure 8.

Natural gas

As demonstrated in Figure 9, despite there being an initial decrease in natural gas emissions in 2012-13, there has been a subsequent increase over the

following three years. Over the six year period, there has been an increase of approximately 38 per cent. This is largely due to the addition of Williamstown Library and Laverton Community Hub buildings.

Refrigerant gas

As demonstrated in Table 4, refrigerant gas related emissions have been estimated and carried over from 2010-11. It is a small proportion (less than 1%) of the overall emissions.

Figure 8

Fuel emissions 2010-11 to 2015-16

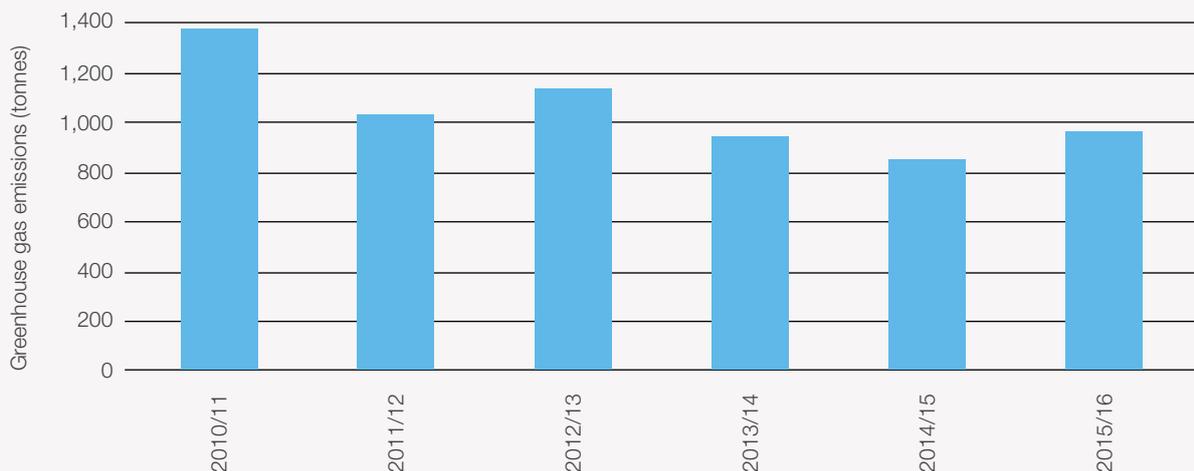
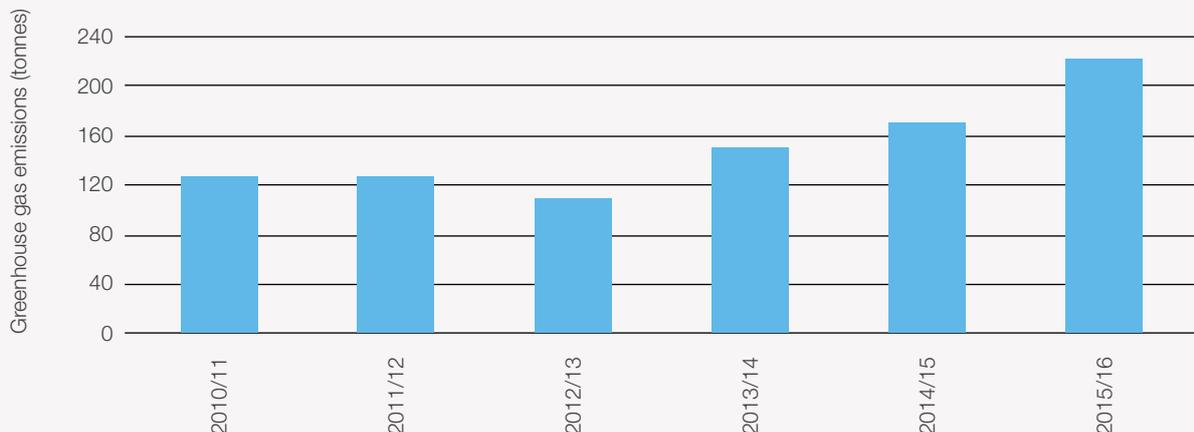


Figure 9

Natural gas emissions 2010-11 to 2015-16





6. WATER USE

6. WATER USE

6.1 Overview

Council's water use consists of drinking (potable) water, bore water, recycled water and stormwater. Stormwater and recycled water are used for the irrigation of parks, sports grounds and open spaces. Drinking water is used in buildings and, where stormwater or recycled water is not available, it is also used for irrigation. Bore water is currently used to top up Newport Lakes and Cherry Lake.

6.2 Water use in 2015-16

Table 5 demonstrates that Council used 421ML of drinking water in 2015-16. Drinking water accounts for 96 per cent of total water use. This is comparable to Council's pre-drought water demand as shown in Council's Water Plan 2009-2014. This is due to the increase in areas of open space that were reconnected to irrigation in 2015-16. Four per cent of water use was supplied by the Paisley Park stormwater harvesting facility. Recycled water supplies came back on line in 2015-16 and Council's recycled water storage system was recommissioned. This work was not completed until the end of the main irrigation season, however the system is ready for the 2016-17 irrigation period.

Table 5 Water use 2008-09 to 2015-16

Council water usage (ML)	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Bore water	66.1	16.5	19.3	19.3*	0.01	0.04	0.2	0
Drinking (potable) water	184.8	154.1	199.6	230.2	242.5	234	270	421
Recycled water	-	-	-	4	4.1	0	0	0
Stormwater	-	-	-	-	-	20	29.4	18
Total	250.9	170.6	218.9	234.2	246.6	254	299.6	439

*Estimated due to unavailable data

6. WATER USE

Bore water

Historically, bore water has been used to top up Cherry Lake in Altona and Newport Lakes. However, whilst Council is currently using bore water it is unmetered. Therefore, it is impossible to determine the amount of water used with any accuracy.

Drinking (potable) water

The use of drinking water for the irrigation of parks, gardens and playing reserves has increased since the lifting of water restrictions at the end of the drought (from 2010-11). A number of sites such as Hatt Reserve and Cyril Curtain have upgraded their irrigation systems and these have been brought back online which has added to an increase in water use. A new irrigation system was built at Bruce Comben Reserve and a new sports ground was commissioned at the AB Shaw Reserve.

Stormwater

Stormwater harvesting is an important feature of the Integrated Water Management Plan. Actions are currently underway to develop facilities at a number of sites. During the 2015/16 year Paisley Park Stormwater Harvesting facility provided 18ML of water to the Paisley Park sporting precinct. The Laverton stormwater harvesting system will be operational during 2016-17, once saline issues have been rectified. There are five sporting grounds connected to this system. Estimated usage on these grounds is 26ML and demand should be met through stormwater. The Cyril Curtain Reserve stormwater harvesting system was not used in 2015-16. Once this system is operational,

Council should see a reduction in potable water use and associated costs for this site.

6.3 Trends

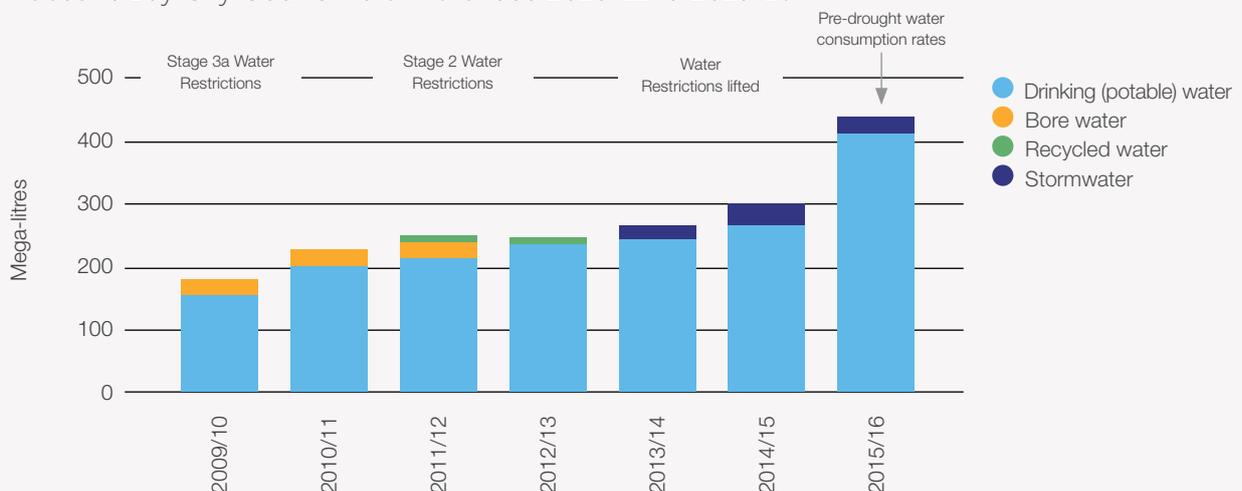
Figure 10 identifies the progressive increase in water consumption since the lifting of water restrictions in 2012-13. Council's water consumption has now increased to a level comparable to that before the drought period during the 2000's.

Whilst Council's water consumption increased significantly (47%) over the past year, it was due to the irrigation of many additional areas of open space. Areas of open space that were irrigated in 2015-16, had not been irrigated since stage 3a water restrictions were introduced. These included Bruce Comben Reserve, Hatt Reserve, Cyril Curtain Reserve and the new sports ground at AB Shaw Reserve. A particularly warm and dry spring in 2015, leading into a dry summer, has added to the significant demand on irrigation. Following the supplier's (City West Water) upgrade to their recycled water facility, Council recommissioned the water storage tanks at Altona Green to supply irrigated water.

The stormwater harvesting facility at Paisley Park is operating well and supplied stormwater for 2015-16. The Laverton stormwater harvesting facility was offline due to a fault with the storage basin that was allowing saline groundwater to intrude. This problem is currently being investigated.

Figure 10

Hobsons Bay City Council total water use 2010-11 to 2015-16



7. WASTE AND LITTER



7. WASTE AND LITTER

7.1 Overview

Council provides waste and litter services to its community via:

- collection services to households, community organisations and businesses
- community education and engagement
- enforcement of local laws
- litter collections
- street sweeping
- stormwater management
- beach cleaning and seaweed removal

Council measures the amount of waste and litter collected, disposed of and recycled through these services.

7.2 Waste and litter in 2015-16

Table 6 demonstrates that in 2015-16 there were 18,848 tonnes of garbage, 10,539 tonnes of recyclables, 7,124 tonnes of garden waste and 1,168 tonnes of hard waste collected. Other large waste streams were seaweed (3,179 tonnes), street sweeping (1,149 tonnes) and dumped rubbish (1,077 tonnes).

Table 6 Waste and litter collection services by tonnes 2015-16

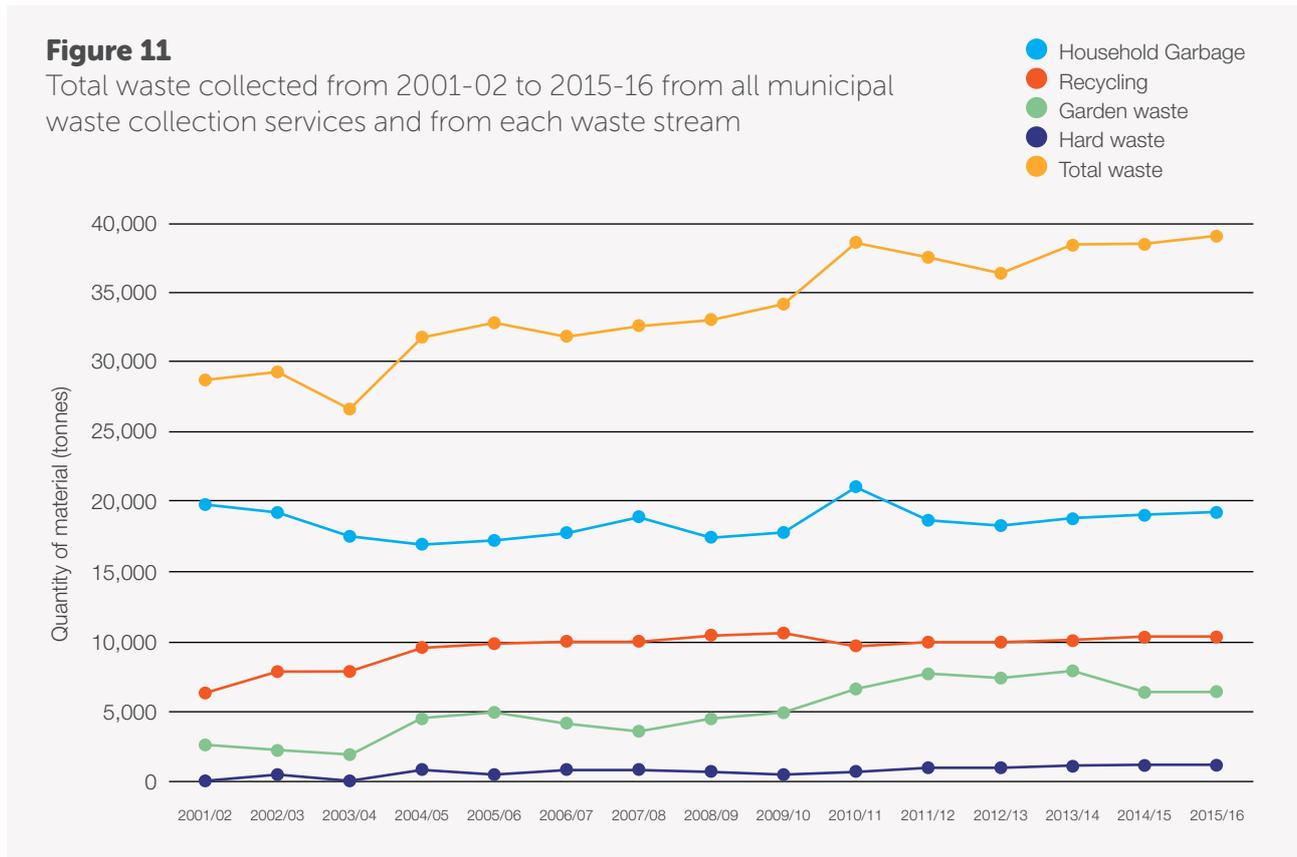
Quantity (tonnes)	Quantity (tonnes)	
	Landfilled	Recycled
Garbage	18,848	
Recycling		10,539
Garden waste		7,124
Hard waste	630	538*
Litter bins	551	
Housing commission	90	
Street sweeping	1,149	
Sand siftings	18	
Dumped rubbish and loose litter	1,077	
Seaweed - landfilled	3,179	
Seaweed - recycled		70
Stormwater traps	60	
Total	25,602	18,271*

* The recycling of hard waste is estimated by volume (not weight). Approximately 45 per cent by volume of hard waste was recycled during 2015-16. The actual weight recycled depends largely on the type of hard waste collected. For example, if items such as fridges and washing machines are collected and recycled then the actual weight recycled is likely to be more than if larger, light weight items are collected.

7. WASTE AND LITTER

7.3 Trends – collection services

Figure 11 shows the amount of waste collected in kerbside waste collection services. The graph highlights a sustained increase in waste generation in Hobsons Bay.



In 2015-16 there was a marginal increase (1%) in total waste collected from the previous year. Household garbage rose by one per cent while waste collected through hard waste services rose by nine per cent. There was minor improvement in Council's recycling (0.1%) and garden waste services (0.2%) from the previous year. The increase in hard waste is partly due to an increase of almost four per cent in the number of hard waste services delivered.

The steady upward trend in the quantity of waste and recyclables collected may be attributed to Council's consistent and regular waste service across the municipality, a slight increase in population and less garden waste collected than in previous years, possibly due to seasonal influences.

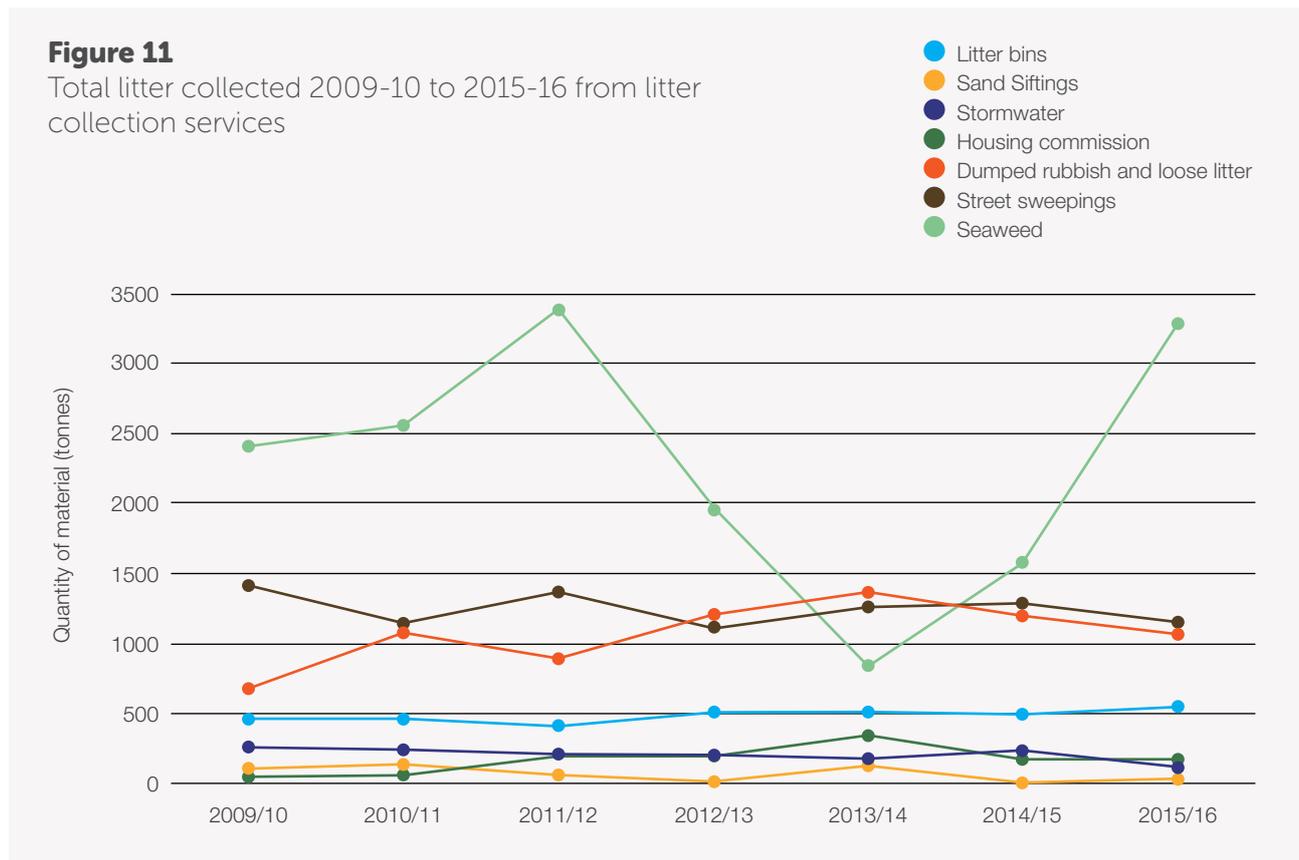
Figure 11 also shows the variation in the amount collected in each type of service. Household garbage

remains the largest waste stream for Hobsons Bay (48.5%) followed by household recycling (27.1%) and garden waste (18.3%). Hard waste collection contributed approximately three per cent of total waste collected in 2015-16. The total recycling rate including recyclables and garden waste is 48.3 per cent which is similar to 2014-15. The data also shows that the proportion of waste collected from each waste stream in 2015-16 was similar to previous years.

7. WASTE AND LITTER

7.4 Trends – litter collection services

Figure 12 indicates the trends of litter collected through litter collection services for the last seven years.



The amount of litter collected has increased by 29 per cent, largely due to an increase in the amount of seaweed collected. The quantity of seaweed collected in 2015-16, compared to the previous year, increased by 1,746 tonnes (116%). The amount of seaweed that is produced is affected by variables such as tidal movements, nutrient sources, health of the seaweed and weather conditions.

In 2015-16 Council undertook a seaweed recycling trial through Council's green waste processing contract. The quantity of seaweed processed in the trial was 70 tonnes or approximately 2.2 per cent of the total seaweed collected. Council will explore opportunities to increase seaweed reuse and recycling in the future.

7.5 Tracking against targets

The Victorian Waste and Resource Recovery Policy 'Getting Full Value' does not have targets for municipal waste diversion. Council did not adopt specific targets for waste and litter management because, at the time of adopting the Waste and Litter Management Plan 2012-17, the Victorian Government was reviewing its policy. If targets are set by the Victorian Government in the future, Council will consider these in future Waste and Litter Management Plans.

8. BEHAVIOURAL CHANGE PROGRAMS



Council undertakes a significant number of programs aimed at behaviour change and supporting the community in taking action on climate change, energy and water management and biodiversity outcomes. These initiatives are targeted at both the wider community as well as to our businesses and industries. These initiatives seek to protect biodiversity, manage waste, reduce greenhouse gas emissions and encourage wise water use.

8.1 Community Greenhouse - Community Greenhouse Strategy 2013-30

Residential solar program

The residential solar program provided residents with expert independent advice on solar power options and access to a market discount. More than 170 households took up the offer, installing a total of 1,915 solar panels equating to 498kW of renewable energy capacity and a saving of 825 tonnes of greenhouse gas emissions per year.

Hobsons Bay resident Robyn Wilmshurst, who took up the offer, said the experience was easy.

“Our primary driver for installing solar panels was to reduce our carbon footprint but we’ve also halved our monthly energy bills,” said Robyn.

“I look forward to the monthly emails telling me how much electricity we have saved.”

In the trial, nine households received a range of retrofits including draught proofing, shading, efficient showerheads, hot water system insulation and energy efficient lighting. Participants reported increased comfort in their homes and an ability to make better use of spaces throughout their homes.

This program is being expanded in 2016-17 and will continue to assist residents to be more resilient during extreme weather events and potentially save money through energy savings.

“I have never been able to get, or keep, my back living area warm, now that you have sealed the laundry door it’s really warm!”

This Altona resident was surprised something so simple could make such a big difference.

Community Care sustainability retrofit program - pilot

Council’s Community Care sustainability retrofit program is designed to help residents save money by reducing energy consumption and make their homes more comfortable during extreme heat in summer and cold in winter.

LIGHT\$MART PROGRAM

The Light\$mart program involves Council working with local businesses and community organisations to install energy efficient lighting, to help them save money and energy and reduce maintenance costs.

In 2015-16 the program delivered the following benefits to nine local businesses:

- over 2,100 lights upgraded
- \$116,000 in energy and maintenance cost savings per annum
- a reduction of more than 550,000 kWh electricity per annum

- an annual saving of almost 700 tonnes of greenhouse gas emissions

The program will continue to provide opportunities to businesses throughout 2016-17.

Landpower and Australian Fluid Handling were two businesses which replaced 365 and 143 lights, respectively, throughout their offices, workshop and warehouse space with new, energy efficient LED lights. This provided reduced energy and maintenance costs and greenhouse gas emissions reductions.



“

“The installation was carried out with a minimum of disruption to the business and we are very pleased with the result. We have already seen a substantial reduction in our first energy bill even though the installation took place half way through the billing month.”

Landpower Australia

“

“This energy savings program has really been a “no brainer” since it is great for the environment, has a very quick pay back and provides such an improvement of the working conditions and appearance of our business”

Dietmar Hildebrand, CEO,
Australian Fluid Handling

8.2 Community programs and services

My Smart Garden

My Smart Garden is a free program for residents of Hobsons Bay, Moonee Valley and Maribyrnong City Councils that promotes gardening as a technique for climate change adaptation and mitigation. This is achieved through education and facilitation of actions and their associated benefits. Actions include:

- deciduous trees for shade, reducing air conditioning by keeping houses cool in Summer while allowing sun to warm the house in Winter
- food gardens, minimising household 'food miles'
- habitat gardens, encouraging native species and enhancing local biodiversity
- composting, reducing waste sent to landfill
- water sensitive garden design, minimising potable water usage

The program helps residents to produce free, healthy and delicious fruit and vegetables. It is also a great way to teach children about growing and eating healthy food, with special workshops for kids run during the year.

As indicated in Table 8, the My Smart Garden program had 1,861 residents participating in its programs across the three municipalities of Hobsons Bay, Moonee Valley and Maribyrnong City Councils. Accurate data is not available on the attendance at the events of Hobsons Bay residents. The program delivered 21 events including special workshops with members of the Karen community. An average of 27 people attended each workshop. Participants found the events highly valuable, providing an average rating of 9.6 out of 10 in feedback surveys.

In 2016-17, My Smart Garden will continue to build a sustainable gardening community with more permablitzes, garden open days and special workshops for advanced gardeners. On the following pages is some feedback from participants.

Table 7 My Smart Garden program details

	2013 - 2014	2014 - 2015	2015 - 2016
Participants	1,147	1,481	1,861
Number of workshops planned	10	10	10
Number of workshops delivered	15	22	21
Average number of participants	26	27	27
Average feedback survey rating	9.2/10	9.3/10	9.6/10

Anne from Altona Meadows



I can get more from my garden with less work

I had a bit of gardening experience but I'd lost my motivation. Going to the My Smart Garden workshops really invigorated my enthusiasm to get back out there. The people I met through the program were just lovely and with their help we have redesigned our garden with permaculture principles. Before everything was spread out, so to keep it moist I had to water such a large area, but now with the intensive garden beds, the deep soil and mulch it holds moisture and it's a lot easier to

maintain. I work full time and having a low maintenance design is really important. The management is so much easier with the fruit trees inside the chicken run. They keep the grass down, eat fallen fruit to control pests and fertilise the trees. My daughter Lilly loves the chooks. She likes to take out the kitchen scraps for me and get the eggs. The garden has engaged her a lot more since we got the chooks and she wants to grow strawberries and raspberries soon.

“

This is a wonderful programme. I now grow more and better vegetables/ herbs/fruits/flowers and plants. I preserve lots, I swap, share lots. Just the best!

“

Thank you for such an excellent resource, I have learnt to pickle veggies from my garden, how to better care for my worms, and have met a lot of people in my street through chatting about gardening.

“

I love spending part of my weekend with other like minded-people, learning something new about gardening and living sustainably. Then another part of the weekend putting what I have learnt into action.

“

It is a joy to attend and the information gained is invaluable for both the environment and healthy eating for the family

Adeline from Altona



I want my kids to have a healthy start in life

I saw a flier at the library for a My Smart Garden workshop when I'd just moved from a townhouse to a larger place. We used to think using chemical fertilisers and weed killers in the garden was no big deal but now that I've had the inspiration I've gone completely organic. I use coffee grounds and egg shells to deter snails instead of pellets and I never thought I could compost but it's easy. Every workshop has got me thinking about what I could do and inspired me to try more. I feel much more confident from learning all the time. Now my kids pick their greens for sandwiches each morning from pots with funny faces on them. When they ask 'Mum, what's growing?' it makes

me really happy. I think it's extremely important— the food that they eat is their future. They plant seeds and one of them feeds the worms and the chickens. She picks the peas off the bushes and we eat salad from the garden every day. It's amazing! It makes me feel good that I can give them that healthy start in life. Everyone used to grow food before and gardening still gets people talking. At the moment we're all asking "When are you putting your tomatoes in?". We also go to food swaps every month. We take silverbeet, beans, worm juice, coffee grounds or seeds. I like the social aspects of chatting to people about gardening; it's a way to reconnect

“

Even though I don't attend many events due to work and family commitments, I find the online presence of this program very useful and gives a sense of being involved.

“

I think the program is an excellent way of bringing the community together, and facilitating the sharing of knowledge about gardening. It is a great way of making everyone welcome and part of the community.

“

This program has educate[d] us to eat healthy and how to achieve sustainable living to protect the environment.

“

[The program] connects me to a whole new community and field of knowledge

“

Its great and [I] have already passed on info to friends and colleagues at work.

8. BEHAVIOURAL CHANGE PROGRAMS



Karen Healthy Food and Living Program

Council worked in partnership with the Wyndham Community Education Centre and two members of the local Karen community, who participated in a 2014-15 peer leadership program, to deliver a three month 'Karen Healthy Food and Living Program to 15 members of Laverton's Karen community.

This workshop program aimed to increase civic participation for this sector of the community as well as increasing the capacity of the participants to live more healthy and sustainable lifestyles in the local context.

Workshop topics included an introduction to health and wellbeing, growing your own food, composting and worm farming, preparing healthy and sustainable food for families, where to source healthy, sustainable foods locally and how to access Melbourne's public transport system.

Altona North Community Strengthening Program - Pilot

Council worked with ISIS Primary Care and Altona North Primary School to deliver a sustainable gardening and seasonal cooking program aimed at engaging the culturally diverse community living in Altona North.

The program, hosted by Altona North Primary School, aimed to build stronger relationships between the school and the local community so that a number of urgent and complex health and wellbeing issues experienced within this community could begin to be addressed. The program was successful in beginning to build these relationships, with a total of 30 attendees across four workshops, including some previously unengaged members of the school

community. As well as stating that the program provided an invaluable opportunity to meet new people, the participants also reported increased knowledge relating to food preparation, nutrition and the production of sustainable foods.

As a result of the program, six large garden beds have been constructed at the school and are intended for use by both the school students and the surrounding community. The partnership will continue into 2016-17, with the program continuing to focus on food related issues as a means to forming strong community relationships and building resilience.

Schools Environment Program

Eight local primary schools participated in a half-day workshop series covering a variety of environmental aspects linked to the school curriculum.

The workshops were delivered at a conservation reserve with the intention of fostering and enhancing the connection between the students and their local places and spaces.

Workshops covered themes including waste and litter, local flora and fauna and action planning for sustainability. They were designed to be flexible enough to respond to the particular needs and focus of the schools. This highly successful program is now delivered annually to six to eight primary schools.

EnviroCentre

Located at the Altona Library, the EnviroCentre brings together and showcases Hobsons Bay's environmental initiatives to maximise community awareness of environmental issues. The EnviroCentre is a 'central hub' for anyone keen to explore the environmental issues facing Hobsons Bay, as well as national and global trends.

In 2015-16 there were 1,131 physical loans from the EnviroCentre and the environmental online database 'Environment Complete' recorded 183 sessions for the year.

The showerhead exchange program provided free and efficient showerhead replacements to 60 households.

2016 Environment Grants Program

The Environment Grants program provides up to \$2,000 to local community organisations or groups for activities and projects that support Council's

8. BEHAVIOURAL CHANGE PROGRAMS

environmental objectives and include an awareness raising or educational element. In 2016, Council provided almost \$22,000 in Environment Grants funding in support of the following programs:

Table 8 Environmental Grants program

Organisation	Activity	Grant value (\$)
Altona Beach Patrol 3018	Monthly Altona Beach Cleaning Events	1,950
St Mary's Primary School	Sea School: Evening Workshops	2,000
Beach Patrol 3016	Williamstown's beach clean	1,044
Friends of Skeleton Creek	Skeleton Creek Environmental Education	2,000
Williamstown Community and Education Centre	Growing and Sharing	2,000
Sandridge School	Towards Zero Waste	313
Louis Joel Arts and Community Centre	Sustainability Expo	2,000
Laverton Community Garden	Recycling 100% Green Waste into Compost	2,000
Give.Take.Stand	Community to swap and use second hand items	1,500
Outlets Cooperative Neighbourhood House	Outlets Garden Connection in Newport	1,175
Williamstown High School	Expansion of the Kitchen Garden Area	2,000
Birdlife Australia	Engaging the Hobsons Bay Migrant Community in Bird Conservation and Research	2,000
Seabrook Primary School	Seabrook Sustainable Dry Creek Bed Garden	2,000

Sustainability Grants for Kindergartens

A total of \$17,555 was allocated through a grants program for kindergarten projects that demonstrated goals of sustainability related requirements of the National Quality Framework and educate local communities on projects which support Council environmental engagement objectives. Grants were issued to:

Table 9 Sustainability Grants for Kindergartens grants

Organisation	Activity	Grant value (\$)
Laverton Community Children's Centre	Growling Grass Frog Habitat Project	2,990
Russell Court Kindergarten	Early Childhood Sensory Garden	3,000
Altona Meadows Kindergarten	Sustainability in the Outdoors project	2,100
Seaholme Kindergarten	Squishy Lunch Scrunch and Crunch for Indigenous Garden and Butterfly Bunch	895
Altona Gate Kindergarten	Towards a more environmentally friendly kindergarten	1,490
The Range Children's Centre	Water conservation project	1,595
Hobsons Bay Community Centre	Rain, rain, don't go away, stay some more for us to play	2,485
Kids by the Bay	Water is a finite resource	3,000
Seabrook Kindergarten	Tank water irrigation	1,000

8. BEHAVIOURAL CHANGE PROGRAMS

8.3 Community events

National Tree Day

Council's official Planet Ark National Tree Day event was held at Lower Kororoit Creek in Altona North on 26 July 2015. Approximately 350 people from the local community attended the event and helped plant, stake/guard and water 1,600 plants. Council also provided assistance to Friends of Skeleton Creek who held their own National Tree Day celebrations, with a combined attendance of approximately 30 people who planted approximately 360 plants. Council also supported a community planting event in Market Street, Newport where approximately 300 plants were planted.

Witness King Tides



This year, Council partnered with two local secondary schools to deliver the annual Witness King Tides program. The event was held on 6 June 2016 and was attended by 25 students from Williamstown High School and Mt St Joseph's Girls School. Students learnt about the importance of coastal monitoring before heading out to their local stretch of coast. There they captured the King Tide on camera before uploading their photos onto the Witness King Tides website, helping to create a photographic record of our coastline over time.

World Environment Day / Community Sustainability Awards



Council invited members of its most active and passionate sustainability and environment volunteer groups to celebrate World Environment Day with an afternoon tea on Sunday, 5 June 2016. At the afternoon tea, the Council's Community Sustainability Awards were held to recognise and celebrate the efforts and achievements of approximately 80 volunteers

in their respective groups. Volunteer group's experiences, stories and achievements were shared and provided an insight into what other local volunteers do to protect and enhance our local environment.

Library events

Hobsons Bay Libraries ran ten sustainability focused events with 433 people attending. These events included Sustainable Living Festival activities, World Environment Day, Buy Nothing New Month and Ride to Work Day.

Friends group activities

Friends group activities were run on weekends and weekdays and included activities such as planting, weeding, walk and talks, rubbish pick-ups and general maintenance at conservation sites throughout the municipality. Table 11 indicates that 47 events were held in 2015-16 with volunteers contributing a total of 1,780 hours of their time.

Table 10 Friends group activities

Year	Number of events
2009-10	55 events
2010-11	56 events
2011-12	59 events
2012-13	60 events
2013-14	52 events
2014-15	51 events
2015-16	47 events

Other community conservation events

Council also facilitated community conservation events including Summer by the Sea, resident's educational days and corporate days. The corporate days included planting and mulching with AMES Australia, Cummins, Dera Sasha Sauda, and Mobil. Table 12 indicates that 47 of these events were held in 2015-16. A total of 2,745 community members were engaged.

Table 11 Community conservation events

Year	Number of events
2009-10	16 events
2010-11	20 events
2011-12	30 events
2012-13	25 events
2013-14	32 events
2014-15	42 events
2015-16	47 events

8. BEHAVIOURAL CHANGE PROGRAMS

School events

School events included activities within schools and excursions to conservation sites with both hands-on environmental work such as planting and seed collecting and educational sessions. Topics included flora and fauna in Hobsons Bay, biodiversity and conservation. Table 13 indicates that 57 of these events were held in 2015-16.

Table 12 School events

Year	Number of events
2009-10	21 events
2010-11	20 events
2011-12	25 events
2012-13	42 events
2013-14	34 events
2014-15	42 events
2015-16	57 events

Summer by the sea – Dog’s breakfast

The Dog’s Breakfast provided an opportunity for dog owners to learn more about Council’s animal services, responsible dog ownership and balancing recreational requirements of the foreshore with habitat requirements of the migratory birds that visit. Over 400 people and their pets participated on the day.

World Migratory Bird Day (WMBD)

Conservation Rangers teamed up with the Newport Folk and Fiddle Club, Hobsons Bay Libraries and Friends Groups to celebrate WMBD. There were a number of fun activities, directed at both children and adults, to highlight the shorebirds that travel 25,000km per year to spend six months feeding on our beaches. The event was held at the Williamstown Lifesaving Club on 14 May 2016, where there was an attendance of approximately 100 people.

8.4 Other Council services and activities

Advocacy submissions

Council’s Advocacy Strategy 2014-18 states that Council’s primary objective is to work with others to achieve the best outcomes for the local community now and into the future. In support of this, 17 advocacy submissions regarding sustainability issues were made by Council during 2015-16:

- Victorian Climate Change Framework - Department of Environment, Land, Water and Planning
- Climate Change Adaptation Plan – Department of Environment, Land, Water and Planning
- Victoria’s Renewable Energy Roadmap - Department of Economic Development, Jobs, Transport and Resources
- Port Phillip Bay Environmental Management Plan discussion paper - Department of Environment, Land, Water and Planning
- Victoria’s Cycling Strategy – Department of Economic Development, Jobs, Transport and Resources
- Revised draft of the Floodplain Management Strategy - Department of Environment, Land, Water and Planning
- Flood Management Strategy and Flood Information Standards for Port Phillip and Western Port – Melbourne Water
- Protecting Victoria’s Environment – Biodiversity 2036 – Department of Environment, Land, Water and Planning
- Water for Victoria discussion paper – Department of Environment, Land, Water and Planning
- Victoria’s Future Industries – New Energy Technologies discussion paper – Department of Economic Development, Jobs, Transport and Resources
- Examining the future task of the Victoria Environment Protection Authority discussion paper - Ministerial Advisory Committee Inquiry into the Environment Protection Authority
- Vehicle Emissions discussion paper – Department of Infrastructure and Regional Development
- Victorian Organic Resource Recovery Strategy - Sustainability Victoria
- Managing e-waste in Victoria – starting the conversation - Department of Environment, Land, Water and Planning
- The Household Chemical Collection Program – Sustainability Victoria
- Consultation Draft - Metropolitan Waste and Resource Recovery Implementation Plan 2015 - MWRRG
- Sustainability Fund Priority Statement - Sustainability Victoria

Hobsons Bay Environment Action Team (HEAT)

HEAT is a group of Council staff with an interest in sustainability and the environment. HEAT encourages staff to make a positive difference to our environment through simple actions at work, at home and in the community. As of June 2016 there were 112 Council

8. BEHAVIOURAL CHANGE PROGRAMS

staff who are HEAT members, this is an increase on the 2014-15 figure of 107 members.

HEAT engaged over 400 staff members with sustainability events across the year including World Environment Day, Green Christmas, Ride to Work Day, Food Swap and Seed Saving Workshop, Documentary Screenings, Plastic Free July, Volunteer Recognition Day and RED Group Talk on soft plastic recycling.

Ongoing HEAT projects include implementing:

- Waste Wise certification at nine Council locations
- food scraps composting
- Frog Fairies Energy Challenge – encouraging staff to switch off computers and monitors outside of work hours
- an upgraded recycling station at the Civic Centre including collection of soft plastics and hard-to-recycle materials (batteries, cds and dvds, etc.) using local business Green Collect.

Green Collect

Table 14 presents Council's Green Collect diversion from landfill figures for April 2016 the past three years. In 2015-16, Council spent approximately four per cent of its total expenditure on sustainable procurement.

Table 13 School events

Item recycled	Weight (kg)	Item recycled	Weight (kg)	Item recycled	Weight (kg)
Cork	2.2	Mobiles	7.6	E-Waste	10.8
Metal	0	Plastics	7.8	Stationery	18.1
Batteries	41.1	Other	0		

Horticulture activities

Council has planted 3,350 plants at 28 sites across Hobsons Bay this year including libraries, reserves, roundabouts and the Williamstown Botanic Gardens.

Of these plants, 936 (28%) were grass species with the remainder including ground covers, shrubs and small trees. Around 42 per cent of the total plants are native to Australia. This number is low because several locations have established non-native species that require replanting.

Plant selection is based on matching existing plants within the site or area, site function and maintenance requirements. Drought tolerant species are preferred, as not all sites have irrigation and the goal is to lower dependence on additional irrigation across our sites.

Capital works - materials

Council capital works practices ensure that:

- all excavated concrete and rock is recycled
- all asphalt removed by asphaltting contractors is recycled
- all new asphalt contains up to 20 per cent recycled material
- usage of recycled concrete/rock in road works is approved for Council works (Class three material only)

Sustainable procurement

Table 15 presents Council's expenditure on sustainability over the past three years. In 2015-16, Council spent approximately four per cent of its total expenditure on sustainable procurement.

Table 14 Sustainable expenditure 2013-14 to 2015-16

Expenditure item	2013-14	2014-15	2015-16
Items with a minimum of 10 per cent recycled content (e.g. materials for roads and footpaths, traffic management equipment)	\$1,151,106	\$2,009,083	\$1,264,416
Items which reduced energy and greenhouse gas emissions (e.g. biodiesel, energy efficient equipment)	\$676,586	\$1,827,069	\$469,620
Green products (e.g. water saving devices, cleaning products)	\$65,936	\$127,690	\$1,022,760
Green services (e.g. green printing)	\$107,600	\$127,690	\$160,880
Social purchasing (e.g. catering from social enterprises, fair trade products)	\$30,785	\$4,500	\$1,000
TOTAL sustainable expenditure	\$2,001,228	\$4,086,998	\$2,917,676
Percentage of total Council expenditure	3%	8%	4%

There are some differences between previous years and 2015-16 sustainable procurement activities. These are explained further.

The difference in the purchase of items with a minimum of 10 per cent recycled content is due to purchases during 2014-15 of over \$390,000 for asphalt, over \$200,000 for roads and footpaths and over \$156,000 worth of five star rated vehicles compared to 2015-16.

The difference in the purchase of items which reduce energy and greenhouse gas emissions is due to

8. BEHAVIOURAL CHANGE PROGRAMS

Council purchasing \$437,000 in mechanical heating and cooling systems for Williamstown Town Hall and Altona Library, over \$26,865 for the installation of five high performance floodlights and over \$744,000 on seven Izuzo Euro V vehicles during 2014-15 compared to 2015-16. The purchase of biodiesel in 2014-15 accounted for \$222,000 of this difference compared to 2015-16 because the product was unavailable.

The purchase of green products rose during 2015-16 because Council purchased \$819,000 of green building products for the Laverton North Kindergarten, Altona Library and Laverton and Newport Community Hubs. These items included air conditioning, lighting and passive design construction products.

Council has an ongoing commitment to sustainable procurement through its Environmental Purchasing Policy. This policy includes a commitment to products and services with minimal greenhouse gas emissions, minimal habitat destruction, minimal toxicity, maximum water efficiency and value for money rather than just the cheapest up-front purchase price. The policy allows for a maximum 10 per cent price premium on sustainable expenditure.



9. FUTURE WORKS 2016-17

9. FUTURE WORKS

This section identifies the 2016-17 major projects that will have an impact on future reporting and also provide a clear link to future reports by comparing the anticipated reductions with actual results. Most works are related to Council's Target 2265 plan. It is important to note that the results of these actions can only be measurable one year after the completion of the projects.

9.1 Energy

Solar Panels

Council will install over 200kW of solar panels on four Council buildings. This will equate to a reduction of emissions of over 315 tonnes, or 13 per cent of Council's 2265 target.

Information and communications technology (ICT)

Two major ICT projects scheduled to be delivered in 2016-17 will provide significant reductions in electricity.

The PC mini rollout will result in a shift end-of-life large desktop computers to mini PCs which will deliver significant savings in electricity costs and a reduced environmental footprint. A total of 450 PCs will be replaced in 2016-17, saving a total of over \$21,000 per year. This will equate to a reduction of emissions of 229 tonnes or 10 per cent of Council's 2265 target. The production data centre is overdue for renewal and will be upgraded to consolidate space, cooling and will lead to a significant reduction in power consumption.

9.2 Water

Recycled water

The Altona Treatment Plant will be back online and providing recycled water to two sports grounds at Altona Green in 2016-17. Recommissioning of the recycled water supply is not due to be completed until the later part of the irrigation season. This means that the full drinking water savings will not be seen until 2017-18. However in a full irrigation season this is expected to save up to 16ML of drinking water.

9.3 Waste and litter

Flexible plastics recycling

Council launched the flexible plastics recycling in November 2016 to all households in Hobsons Bay. Plastic bags and other flexible plastic packaging such as bread, pasta, rice and cereal packaging, cling wrap, postal bags and bubble wrap can now be recycled in the yellow lidded recycling bin.

10. FUTURE STRATEGY DEVELOPMENT



10.1 Biodiversity Strategy

Council anticipates that the Biodiversity Strategy will be exhibited and adopted in mid 2017. The strategy provides the strategic direction to guide Council's conservation management works whilst ensuring alignment with Council operations, particularly conservation, land use planning and open space planning.

This is Council's first Biodiversity Strategy and it was developed in consultation with key stakeholders and the wider community. The strategy will be implemented via an action plan and an ongoing monitoring and evaluation process.

10.2 Integrated Transport Plan

Integrated transport has been identified within the Hobsons Bay Advocacy Strategy 2014-18 as a key advocacy issue, in addition, the Community Greenhouse Strategy 2013-30 includes an action to develop an Integrated Transport Plan for the municipality.

The Integrated Transport Plan will provide strategic direction to meet existing and future transport needs for the municipality. Amongst other things, it will provide a policy framework and transport network that encourages public transport and active transport options, such as cycling and walking, over car based transport options. It will also assist with policy support for other actions within the Community Greenhouse Strategy, including:

- implementation and enhancement of an active transport strategy
- advocacy for major public transport improvements
- low carbon vehicle strategy
- car share strategy
- travel behaviour change program

The Integrated Transport background paper is expected to be finalised in 2017.

10.3 Waste and Litter Management Plan

A review of Council's Waste and Litter Management Plan 2012-17 commenced in 2016-17. The review will include an assessment of Council's delivery of actions adopted in the Waste and Litter Management Plan 2012-17, a summary of the strategic context which has developed over the years and discussion on current and emerging issues.



CONCLUSION

This report provides evidence of Council's leadership on sustainability. It demonstrates that actions are being undertaken to meet the goals identified in the Community Health and Wellbeing Plan 2013-17 and Council Plan 2013-17.

This report identifies the many capital works actions, day-to-day activities, community programs and events that are undertaken to protect and enhance the municipality's biodiversity, manage waste, reduce greenhouse gas emissions and manage water more wisely.

Undertaking works to reduce Council's energy and water use will reduce long term operational costs. Measuring Council's greenhouse gas emissions and water use allows Council to manage and direct actions to reduce greenhouse gas emissions and move toward the zero net emissions by 2020 target and meet the targets outlined in the integrated water management plan.

The results presented within this report highlights the need for Council to continue to work hard to address barriers and continue to improve its environmental performance as well as continuing to provide valuable services to the community.

The excellent result in emissions reductions at Altona Library should be celebrated and shared with the community as a source of inspiration. The extensive community and behavioural change programs offered by Council are having an impact on the community's knowledge and understanding of climate change impacts

and adaptation opportunities. Hundreds of members the community contribute to enhancing the natural environment of Hobsons Bay through conservation programs. The effectiveness of these programs has a legacy on the broader community and Council will continue to support community and environmental groups in this important work.

It is important that Council continues to reduce its own emissions, water consumption and waste in order to provide leadership and knowledge to assist the community to reduce its own, so that together we can create a sustainable Hobsons Bay, now and into the future.



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