EXECl"CtIVE
SUMMARY

THE 2012/13 SUSTAINABILITY SNAPSHOT IS THE CITY OF STONNINGTON’S FIRST COMPREHENSIVE REPORT ON THE PROGRESS BEING MADE BY COUNCIL AND THE COMMUNITY IN ADDRESSING THE KEY ENVIRONMENTAL ISSUES IMPACTING THE CITY.

The Report provides an update on Council’s key environmental performance data, highlight projects and improvements made over the past twelve months and the focus for the year ahead.

Through the delivery of the Sustainable Environment Strategy 2013-2017, Council will continue to protect and improve the local environmental and its influence on the health and sustainability of the community.

The goals and objectives of the Sustainable Environment Strategy 2013-17 will be regularly monitored and reported through the release of the Sustainability Snapshot each year.

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WELCOME TO THE CITY OF STONNINGTON’S FIRST SUSTAINABILITY SNAPSHOT

Creating a healthy and sustainable City where natural and urban environments are enjoyed and protected is a priority of Council.

Environment is one of four pillars in the Council Plan 2013-2017. The Environment Strategies include:

- Support the shift towards the use of sustainable transport options.
- Increase the amount of open space and improve and balance the use of existing spaces through greening of streets and other initiatives including green roofs and walls.
- Demonstrate waste minimisation and the efficient use of water and energy, through the implementation of innovative and best practice initiatives.
- Initiate behavioural change within the community to adopt sustainable practices.
- Manage, strengthen and develop local biodiversity and protect and increase flora and fauna.
- Support Council and the community to respond, mitigate and adapt to climate change.
- Improve Council’s own environmental performance and practices through a whole of Council commitment.

The Sustainable Environment Strategy 2013-2017 embodies many of these strategies which flow on to the Sustainability Snapshot.

Addressing the range of factors that impact on the environment will create not only a healthier community for our present generations, but a sustainable environment for future generations to also enjoy.

This Report provides an annual update of progress being made by Council and the community in influencing key environmental issues as identified in Council’s Sustainable Environment Strategy 2013-2017.

The Sustainable Environment Strategy is the driver of environmental planning, monitoring and improvement for the City of Stonnington. It is a Council-wide strategy with the overall aim of protecting and restoring the environment in Stonnington.

This Report is based on the seven environmental themes of the Sustainable Environment Strategy, including: environmental commitment and reporting, energy conservation, integrated water management, minimising waste and maximising resource recovery, sustainable purchasing and product use, biodiversity and environmental education.

Reporting on each theme includes: a summary of the key issues and opportunities, the goal/s and objectives for improvement, key actions achieved over the previous 12 months and highlights of performance in implementing these actions, and the focus for the next 12 months.

In particular, the Report shows how the City of Stonnington, with support from local organisations, groups, residents and schools, is working to improve environmental conditions in the City of Stonnington for the long term benefit and enjoyment of all. This is demonstrated through presentation of measurable data that can be monitored for changes over time.

The initiatives discussed in this report provide a direct impact to the community, directly involve the community or relate to Council’s organisational activities which provide an indirect community benefit – or a combination of these. The general impact of the environmental themes discussed in this report can be summarised as:

<table>
<thead>
<tr>
<th>Theme</th>
<th>Operational Improvement</th>
<th>Direct Community Involvement</th>
<th>Direct Community Benefit</th>
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SUSTAINABILITY SNAPSHOT 2012/13: INTRODUCTION
Through Council’s wide-ranging functions in planning and delivering facilities and services, in addition to its statutory planning responsibilities, there are significant opportunities to positively influence environmental outcomes both within the organisation and throughout the wider community.

Reporting is a key element of implementing Council’s commitment to environmental sustainability and much effort has gone into consolidating data collection processes to enable easier reporting.

The Sustainability Snapshot is the primary method for reporting on the activities implemented by Council in working towards achieving its commitment to improving environmental conditions in Stonnington and influencing a more sustainable community.

COUNCIL’S GOALS FOR ENVIRONMENTAL COMMITMENT AND REPORTING

• To create an organisation wide commitment to environmental sustainability which is evident across the delivery of all Council services and functions.
• To support staff participation in environmental initiatives.
• To publicly report on the environmental performance of Council in achieving its environmental sustainability goals each year and across the life of the Sustainable Environment Strategy 2013-2017.

OBJECTIVES

• To raise awareness of environmental issues and increase staff participation in initiatives aimed at improving Council’s organisational systems, policies and processes to improve sustainability and reduce its impact on the environment.
• To regularly collect and manage data for the purpose of monitoring Council’s environmental performance.

ACTIONS ACHIEVED IN 2012/13

The following actions for environmental commitment and reporting were achieved in 2012/13:

• Promoted the importance of environmental sustainability and continued to encourage staff to adopt environmentally sustainable practices through implementing a program of activities during Sustainable Transport Week.
• Established an internal Sustainability Leadership Group and developed a twelve month action plan to address key sustainability issues impacting on the operations of Council.
• Formulated a staff Green Team with representation from each office location to further promote and support sustainable behaviour among staff at Council facilities.
• Informed Council staff of the environmental issues and priorities in Stonnington through promotion via internal publications (including staff newsletters, the internal website).
PERFORMANCE
The following provides some highlights of key initiatives implemented by Council that demonstrate a commitment to the environment and reporting on environmental indicators to measure sustainability progress.

Sustainability Leadership Group
A Sustainability Leadership Group was established with Council staff early in 2013. The aim of the Group is to identify and address key sustainability issues. The Group commenced by preparing a twelve month action plan which addresses the following priorities:

- Improving communication of Council’s environmental projects and performance to staff and the community.
- Further incorporation of Environmental Sustainable Design (ESD) into planning for construction and development projects.
- Increasing staff use of sustainable transport, particularly cycling to, during and from work.
- Reducing Council’s energy and water use and waste production through a range of initiatives to be undertaken by a Staff Green Team.

Sustainable Transport Week
In 2012/13, 125 staff from across Council took part in activities for Sustainable Transport Week. Participating staff were required to pledge how they would travel more sustainably to, during and from work. Sustainable transport methods implemented included cycling, walking, public transport and car pooling. Many staff indicated they planned to continue travelling sustainably.

FOCUS FOR 2013/14
- To identify opportunities for Council to operate more sustainably as part of a twelve month action plan to be implemented by the staff green team. This will include initiatives to encourage staff to think and act sustainably and the organisation of facilities and resources to support sustainable behaviour within Council.
- To implement projects identified by the Sustainability Leadership Group.
- To incorporate environmental education in staff training and development programs.
- To streamline and improve Council’s data management to enable more specific measurement and monitoring of its environmental performance.
- To report on Council’s environmental performance, both internally and to the community.

There is an increasingly high priority for governments around the world to minimise social, economic and environmental impacts associated with climate change. To do this requires; more efficient use of energy resources; greater use of renewable energy; and a focus on reducing greenhouse gas emissions.

The City of Stonnington has long been committed to energy conservation, however, as the population continues to grow, it is presented with the challenge of providing expanded facilities and services whilst aiming to reduce its corporate greenhouse gas emissions.

The main areas of Council’s energy consumption are in buildings and facilities (due to heating, cooling, and lighting); lighting streets, and running a fleet of vehicles and other machinery. Council will need to closely monitor its consumption of electricity, gas and fuel to ensure that targets for greenhouse gas emission reductions are achieved, even despite the provision of additional buildings and equipment to service the demands of the increasing population.

Strategies for achieving this lie not only in making existing facilities and infrastructure more efficient, but also in achieving efficiencies in the development of new infrastructure. In particular, the focus has been on buildings and facilities, and street lighting.

COUNCIL’S GOAL’S FOR ENERGY CONSERVATION
- To reduce Council’s corporate energy consumption and corresponding greenhouse gas emissions.
- Support the community to reduce energy consumption and corresponding greenhouse gas emissions.

SNAPSHOT 2012/13
ENERGY CONSERVATION

<table>
<thead>
<tr>
<th>Total Electricity Use – 2011/12 = 10,642MWh</th>
<th>Total Gas Use – 2011/12 = 33,887GJ</th>
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</thead>
<tbody>
<tr>
<td><strong>Total Electricity Use</strong></td>
<td><strong>Total Gas Use</strong></td>
</tr>
<tr>
<td>- Buildings 63%</td>
<td>- Buildings 100%</td>
</tr>
<tr>
<td>- Street Lighting 37%</td>
<td>- Gas is fully consumed by Council’s 140 buildings.</td>
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Buildings consumes almost two thirds of Council’s electricity consumption.

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COUNCIL’S GOAL’S FOR ENERGY CONSERVATION
- To reduce Council’s corporate energy consumption and corresponding greenhouse gas emissions.
- Support the community to reduce energy consumption and corresponding greenhouse gas emissions.

OBJECTIVES
- To reduce corporate greenhouse gas emissions by 20% below 2005 level by 2015 and 30% by 2020.
- To maintain ongoing investment in the Energy Efficiency Implementation Program at a level of $500,000 per annum until 2015-16.
- To investigate additional energy efficiency opportunities for Council buildings and facilities.
- To maintain ongoing investment in street lighting upgrades through the Energy Efficient Streetlight Program at a minimum of $100,000 per annum, for complete upgrade by 2022-23.
- To develop a Council protocol to set energy performance standards for all new and upgraded Council buildings and facilities by 2013/14.
- To continue to identify and, where possible, implement further opportunities to reduce fuel consumption of Council’s fleet.
- The inclusion of a local ESD policy in the Planning Scheme.
- Provide energy efficiency opportunities for homes and businesses.
- Increase local power generation for Council facilities through a range of clean energy technologies.
**Total Electricity Use – Council buildings and street lighting, 2005/06 to 2011/12**

**Electricity usage for all Council buildings and street lighting, 2005/06 to 2011/12**

**Total Gas Use – Council buildings, 2005/06 to 2011/12**

**Total Fuel Consumption – Council vehicles and equipment fleet, 2005/06 to 2011/12**

### ACTIONS ACHIEVED IN 2012/13

The following actions to conserve energy were achieved in 2012/13:

- Secured funding through Council’s Capital Works Program for projects that enhance the energy efficiency of Council buildings and facilities (Energy Efficiency Implementation Program).
- Installation of three solar photovoltaic systems at Grattan Gardens, Phoenix Park Community Centre and Prahran Aquatic Centre, equivalent to a 69,000 kW system.
- Installation of innovative turbidity controllers to reduce energy use at Council’s aquatic centres.
- Upgraded industrial and community lighting in Council’s maintenance workshops and libraries.
- Upgraded street lighting with more energy efficient globes (proven to provide a 67% reduction in energy use per street light).
- Advocated for additional funding from the Victorian and Federal Governments to upgrade street lighting to energy efficient technology.
- Continued to purchase more fuel efficient /alternative fuel (eg. LPG) light vehicles in Council’s vehicle fleet.
- Investigated the inclusion of environmental sustainable design (ESD) measures for development proposals as part of Council’s Statutory Planning system, including the subsequent assessment of the proposal’s environmental performance.
- Began refining Council’s data management systems to enable accurate tracking of its electricity and gas consumption and greenhouse gas emission generation.

### PERFORMANCE

The following provides an overview of changes to Council’s consumption of electricity, gas and fuel achieved through implementing the actions for 2012/13. It should be noted that data was not yet available for the full year of 2012/13 at the time of analysis and reporting, therefore 2011/12 is the most recent year analysed.

**Electricity**

Buildings are the major consumer of energy by Council (as demonstrated in the above charts). In tracking Council’s electricity and gas use at buildings and facilities, it is evident that ongoing upgrades (to improve services to the community) are resulting in an increase in energy consumption. An example demonstrating this was the Harold Holt Swim Centre redevelopment which occurred during 2009 and 2010. Electricity consumption for all Council buildings showed a decrease in 2009/10 which correlates with the partial closure of the Centre (August 2009 to November 2010) and then spiked to even higher pre-closure levels in 2011/12. The increased consumption has resulted from the expansion and servicing of rooms (heating and cooling) at the Centre which consequently resulted in a 50% increase in electricity consumption, and a 17% increase in the consumption of gas.

**Gas**

Gas consumption has remained stable when averaged over the six year period analysed, showing no overall decline in usage. The decline in 2009/10 was due to the Harold Holt Swim Centre redevelopment, and the subsequent increase in 2011/12 was due to the reopening of the Centre to full operation.

**Fuel**

The City of Stonnington’s vehicle and machinery fleet is instrumental to providing a variety of services across Council, from street sweeping through to kerbside collection of household waste. With the growth of these services, Council observed a gradual increase in fuel consumption from 2007/08 to 2009/10. Council modified its light fleet vehicle purchasing protocols in 2011 to reduce its fuel consumption (through prioritising the purchase of low / alternative fuel consumption vehicles (such as diesel and LPG) where possible. It is evident that the implementation of this new protocol has had a direct impact on fuel consumption, with a decrease of approximately 30,377 litres of fuel between 2009/10 and 2011/12.

**Greenhouse Gas (GHG) Emissions**

The impact of Council’s electricity, gas and fuel consumption is the emission of greenhouse gases. There are two approaches to achieving Council’s objective of reducing its GHG emissions: through purchasing green energy or GHG emission offsets through generic schemes, or through funding Stonnington based initiatives that aim to increase the efficiency and environmental sustainability of Council’s buildings and infrastructure.

In the past, the majority of Council’s greenhouse gas reduction initiatives have been achieved through the offset purchase approach. This has changed to reflect a priority of investing in permanent energy reduction initiatives within the City of Stonnington which has the added benefit of improving the environmental performance and sustainability of Council’s assets, and consequently, reducing operational costs.

The chart on the following page shows the composition of Council’s GHG emissions in 2011/12.
The chart shows:
- Council’s buildings contribute to almost two thirds of these emissions (through use of electricity and gas).
- Another 26% is made up of electricity consumption for street lighting.
- Eighty percent of the emissions generated through electricity consumption.

Analysis of the total GHG emissions generated by Council over recent years shows that:
- GHG emissions have increased marginally since 2005/06. This relates to the conflict previously raised between providing new / upgraded infrastructure to meet community need and the increase in energy consumption generated by an expanding pool of buildings, facilities and vehicles.
- The GHG emission data shows a dip in 2009/10 - this mirrors the impact of the Harold Holt Swimming Centre closure discussed earlier.
- The emission reduction targets for 2015 and 2020 set in the Sustainable Environment Strategy 2013-17 that reflect these areas of focus and the objective of reducing greenhouse gas emissions that will be implemented during 2013/14 are:

**FOCUS FOR 2013/14**

- To implement the Energy Efficiency Implementation Program at Harold Holt Swim Centre, including: energy efficient water boilers and a hybrid solar photovoltaic system.
- To continue the upgrade of street lighting to more energy efficient fittings.
- To complete an audit of the energy efficiency of heating and cooling systems in Council buildings, and identify opportunities for improvements and upgrades.
- To identify further opportunities to achieve energy savings in the operation of Council’s fleet.
- To identify opportunities for localised energy generation on Council property, such as solar, wind, thermal or from waste, as a means of substituting energy currently purchased through the grid.
- To develop a Council protocol requiring that all new and upgraded Council buildings and facilities incorporate environmental sustainable design (ESD) and meet a best practice standard.

Street lighting is an area where Council’s initiatives at reducing consumption have been most effective, as shown in the following chart. The data shows that Council has already achieved its 2020 target for GHG emission reductions for street lighting. An outstanding result! Further implementation of actions for street lighting are expected to realise a further reduction in energy consumption and emissions which will help to impact the overall GHG emission reduction target.

**FOCUSB FOR 2013/14**

- To continue the upgrade of street lighting to more energy efficient fittings.
- To develop criteria for environmental performance to include in contract specifications for the design of new and upgraded Council buildings and facilities.
- To encourage patrons to travel to Stonnington events by sustainable transport.

As a result of the continued investment in the implementation of these initiatives, and with projected savings they will deliver, Council will be on track to achieve its GHG emission reduction target for 2015. This is shown in the above chart.
Water availability and use has been a prominent issue for Victorians since the late 1990’s, caused by a long period of drought which impacted on all households and businesses across the State.

This experience forced a review of water management practices (and the introduction of severe water restrictions) which led to innovative methods for collecting and storing water, and also facilitated the development of products to minimise water use.

While water restrictions have relaxed since late 2010 with the easing of the drought and greater availability of water, there remains a strong imperative for Council and the community to continue to conserve water.

Through the Sustainable Environment Strategy 2013-2017, Council has adopted an approach to ‘integrated water management’. This recognises that the supply, storage, use and reuse of water is an interrelated process and is best regarded as a whole system in order to have the greatest effect.

As part of this integrated approach, Council will continue its water conservation and water quality improvement measures – this is particularly important as demand for services increase to meet the needs of a growing community and the cost of water is expected to increase significantly.

These will focus on the main contributors to water use, being:

- Civic buildings;
- Aquatic centres/swimming pools;
- Sports facility irrigation (playing fields, tennis courts, and the Malvern Valley Golf Course);
- Irrigation of public gardens and open spaces including roundabouts, nature strips and other lawned areas;
- Street sweeping; and
- Truck wash down associated with waste collection.

**COUNCIL’S GOALS FOR INTEGRATED WATER MANAGEMENT**

- To implement measures to maintain corporate potable water consumption at reduced levels.
- Improve water management practices and stormwater quality through an integrated water management model to reduce potable water use and enhance the quality of water in creeks and waterways.

**OBJECTIVES**

- To maintain corporate potable water consumption at 60% below 2000/01 (pre-drought) levels.
- To determine the most effective Water Sensitive Urban Design treatment systems to implement across the municipality to reduce potable water consumption and improve stormwater quality.

**ACTIONS ACHIEVED IN 2012/13**

The following actions for better integrating the management of water were achieved in 2012/13:

- Converted the TH King Oval and Righetti Oval to drought tolerant sports turf and installed sub surface irrigation to continue to reduce Council’s potable water consumption.
- Utilised recycled water from tanks installed at Como Park and other sports ovals, Prahran Market and at the Depot truck wash to capture and reuse rainwater and stormwater as a substitute for potable water.
• Implemented water sensitive urban design projects directly, and with partners (such as developers and other land owners), such as the construction of a wetland system including a trap to remove water pollutants.
• Investigated initiatives for achieving a water sensitive city at Forrest Hill which can be considered for future Structure Plans.
• Continued to implement the City of Stonnington’s Planning Scheme Amendment (22.18) to require developers to apply the requirements of the Melbourne Water STORM tool in order to meet best practice targets for WSUD as part of new building developments.

**PERFORMANCE**

Council has made great progress in reducing its water consumption. A target has been set of slashing water use by 60% on 2000/01 levels and of maintaining consumption at this drastically reduced rate. This target has been exceeded, with Council’s water consumption reaching its lowest in 2009/10, at just one quarter of the amount of water used in 2000/01 (ie. 118,887kL compared to 473,211kL). Council’s progress in reducing water use is shown in the above charts.

The chart shows that water use has increased slightly in 2011/12. This is related to the lifting of water restrictions and the associated increase in community expectations around the irrigation of sports ovals and open space / parkland areas. However, despite the increase of 14% from 2009/10 (to an annual consumption of 135,492 kL in 2011/12), Council’s target continues to be met and exceeded.

The Harold Holt Swim Centre and Prahran Aquatic Centre currently contribute over one quarter of Council’s potable water consumption (16% and 11% respectively). Sir Zelman Cowen Park, Gardiner Park and Toorak Park are also among the top water consuming sites, contributing 18% of Council’s total potable water consumption. Because of this, these sites are to be targeted with measures to reduce water consumption.

The following activities have influenced these dramatic reductions:
• 75% of sports fields are now warm season grasses;  
• More efficient irrigation systems have been introduced in parks and sports fields;  
• Succulents, indigenous and drought tolerant exotic plant species are used in gardens and streetscapes;  
• Fittings and fixtures were installed across offices, community centres and sports pavilions (including water efficient urinals, taps and toilet cisterns); and  
• Streetscapes and reserve improvements included water sensitive urban design with features such as tree pits and rain gardens. These features have water treatment benefits and also increase water to plants.  
• Glenferrie Road tree pits Carroll Crescent rain garden Prahran Market water harvesting tank  
• In 2007, eighteen tanks were installed under the floor of the Prahran Market. This larger rainwater harvesting system is utilised for market floor end of day wash down.  
• Rainwater and stormwater harvesting systems have been installed at sixteen park locations around Stonnington. A state of the art stormwater recycling system has been installed at Como Park. At the time, the hydrofilter was the first of its kind to be used in Australia and has made great savings while maintaining the integrity of the sports ground playing surface.

An example of a whole integrated water-cycle management site is the Stonnington Waste Transfer Station at Tooronga Depot. This site was built approximately 3 years ago and houses the Council waste fleet and physical operations staff.

The site incorporates:
• A rainwater harvesting system which captures water from the roof into a 105,000 litre concrete influent poured underground tank. This water supplies the toilets and truck wash top up.
• All fixtures and fittings are efficient (4.5 – 3 litre flush toilets, low water use urinals, and 6 litres / minute taps).
• Landscape surrounds include WSUD swales and rain gardens and hydrocon treatment pavers.
• An Electropure system that recycles waste water in the truck wash area. In this system, trucks are cleaned out regularly using a high pressure hose.
• The waste water from the washing drains into an underground tank. The raw water from this tank is then pumped into the electropure unit. The pollutants are removed and water is treated to a standard ready for truck washing again and pumped into the clean water storage tank.
• The electropure system was the first in Victoria. It uses minimal chemicals and has no filters or moving parts. It does not result in any increase in the salinity of treated water.

Since signing the Lower Yarra Stormwater Quality Program Agreement in 2006, the City of Stonnington has worked in partnership with Melbourne Water in delivering WSUD projects that improve the quality of stormwater that enters Gardiners Creek and the Yarra River. Under this agreement, Council has installed / constructed 43 rain gardens, 64 bio retention tree pits and three wetlands that all treat to best practice performance.

**FOCUS FOR 2013/14**

The challenge for Council is to continue to maintain its water use at the levels achieved over recent years, which sit below its reduction target. In 2013/14, Council will:
• Investigate the effectiveness of Council’s current stormwater treatment assets (eg. rain gardens and wetlands) to identify opportunities for future investment.
• Prepare a policy requiring all new and upgraded buildings and facilities developed by Council to incorporate environmental sustainable design (EUD) and meet a 6-star rating.
• Continue to implement the City of Stonnington Water Sensitive Urban Design Planning Scheme Amendment 22.18 to require building developers to treat stormwater onsite to best practice standards.
• Investigate adopting targets to reduce total nutrients in water entering waterways for each stormwater treatment implemented by Council.
• Review Council’s current use of groundwater to determine its long-term sustainability as an alternative to potable water, rainwater, stormwater or recycled water.
• Maintain the program of conversion of sports grounds to warm season grasses.
Australians create about 28 million tonnes of garbage every year. Just over one third of this material is recovered for recycling. Australia is also one of the highest producers of waste per head of population in the world. (WCS Market Intelligence 2001, Australian Waste Industry – Industry and Market Report)

Managing the volume of waste generated throughout the community and its impact on the environment is a major challenge. Waste sent to landfill has both environmental and financial implications; waste going to landfill increases the release of harmful greenhouse gases into the environment; and the cost of waste disposal to landfill is increasing significantly due to rising State Government levies and the introduction of the carbon tax.

Council is responsible for the collection, transport and disposal of municipal waste within the City. As part of this service, Council provides weekly garbage collection, fortnightly recycling, user pays green waste collection (currently used by 25% of residents) and a biannual hard waste and bundled green waste collection. Council also provides opportunities for residents to recycle niche products such as e-waste (electronic waste), household chemicals, batteries and mobile phones.

Council also plays an important role in delivering waste education to the community. Through a range of programs, Council encourages and supports the community to: reduce the amount of waste generated; reuse waste products and materials; recycle waste products at home (for example composting); and separate waste to enable recycling of materials to make new products (for example cardboard, paper, glass, plastics, green waste).

In managing waste, Council’s focus is on minimising the amount of rubbish that is generated in the first instance. This preventative approach is also a key goal of the new Victorian Waste and Resource Recovery Policy and is consistent with the widely accepted waste management hierarchy of Avoid, Reduce, Reuse and Recycle.
COUNCIL’S GOALS FOR MINIMISING WASTE AND MAXIMISING RESOURCE RECOVERY

• To minimise waste generated by Council and the community.
• To inform and support the community and staff to implement correct waste disposal practices.
• To continue to review Council’s waste management services for relevance to the changing needs of the community, and implement improvements as identified.
• Maximise the recovery of reusable resources out of the waste stream.

OBJECTIVES

• To educate and support Council, households and the broader community (including businesses and schools) in measures to minimise waste generation.
• To reduce the contamination rate of kerbside recyclables to less than 10%.
• To maintain a 3% increase in participation in the green waste service each year.
• To deliver best practice waste management services which optimise positive environmental outcomes.
• To educate the Stonnington community on improved waste management practices at home.
• Provide opportunities for the community to manage their own food waste onsite for reuse as a resource.
• Increase community recycling opportunities in the public realm.

ACTIONS ACHIEVED IN 2012/13

The following actions for better managing waste and reducing waste generation were achieved in 2012/13:

• Introduced Residential Waste Management Guidelines through the Stonnington Planning Scheme to require the provision of appropriate space and infrastructure for the efficient delivery of waste management services in all relevant developments.
• Developed strategies to increase residents’ participation in the Kerbside Green Waste Service by 1.5%.
• Reviewed the current recycling services for niche products (batteries, mobile phones) to increase opportunities for the community to recycle these products.
• Provided an E-waste recycling drop off day for Stonnington residents and promote ongoing E-waste recycling services.
• Liaised with Council’s current Kerbside Recycling Contractor to develop a Waste Education Program, and implement.
• Hosted a Detox Your Home household chemical drop off day and promoted other Detox Your Home services in the local area.
• Delivered eighteen waste education sessions to Stonnington’s kindergartens covering topics including Litter, Worm Farming and Reduce, Reuse and Recycling.

• Delivered fifteen waste education sessions to Stonnington’s schools covering topics including Nude Food and Waste Audits.
• Delivered workshops and tours to residents on ‘Worm Farming and Composting’, and ‘Follow Your Recyclables’.
• Encouraged and supported business and community participation in Clean Up Australia Day activities.

PERFORMANCE

Council and the community’s performance in waste management has achieved excellent results over recent years:

• The total amount of waste generated by residents and businesses has decreased by 3.2% (1,250 tonnes) over the past five years, representing an average decrease of about 250 tonnes a year. This is despite growth in the Stonnington population during this period.
• The amount of landfill created by waste has also decreased from 2007/08 to 2011/12 (by 7.3%, or 1,755 tonnes), representing an average reduction of 1.46% (about 350 tonnes) a year.
• Council’s current diversion rate of landfill to recycling is 41% (2011/12 figure) compared to 39% in 2007/08, which represents an average increase of 0.67% a year.

Council’s waste management and education programs can be attributed as factors that have contributed significantly to achieving these results.

A key challenge facing Council and the community in increasing this rate further is the high density living in Stonnington and a recycling in apartment blocks.

An audit of kerbside waste in February 2013 informed Council of residents’ recycling practices. The audit showed that food based material was the predominant rubbish item (representing almost half of the sample by weight). In addition to the negative environmental impacts of organic matter going to landfill, there are also significant cost implications. The audit showed that, on average, each Stonnington household generates approximately 300kg of organic matter per year. This has a disposal cost of approximately $32 per household each year which equates to a total annual cost of $1.6M for the municipality.

The audit results also found that over a quarter of the waste sample (17.35%, 195.45kg) was comprised of food waste (mainly meat, dairy, fruit and vegetables) which was also significant cost implications. The audit showed that, on average, each Stonnington household generates approximately 300kg of organic matter per year. This has a disposal cost of approximately $32 per household each year which equates to a total annual cost of $1.6M for the municipality.

Activities aiming to encourage residents to recycle food waste, eg. through composting, will be the focus in 2013/14. Initiatives to improve staff recycling rates and divert food waste from landfill will also be a focus.
Types of e-waste collected

- TELEDYNS: 176
- CD/DVD/S/STEREOs: 128
- PRINTERS/SCANNERS/FAX MACHINES: 152
- COMPUTER MONITORS: 116
- COMPUTER HARD DRIVES: 148
- LAPTOPS: 74
- CORDS AND CABLES: 142
- PRINTERS/SCANNERS/FAX MACHINES: 152
- COMPUTER MONITORS: 116
- COMPUTER HARD DRIVES: 148
- LAPTOPS: 74
- CORDS AND CABLES: 142

E-Waste recycling drop off days
The City of Stonnington hosted its third annual E-Waste Recycling Day on Saturday 17th November 2012. A total of 172 residents participated, which grossed 6,642 kg of electronic waste for recycling. This is an average of 42kg and four items of electronic waste per participant!

Since commencing in 2010, over 18 tonnes of E-waste has been recycled over three E-waste days.

Detox Your Home event
Over 550 Stonnington residents were responsible for diverting 21 tonnes of harmful chemicals from landfill including paint, oil, gas cylinders and batteries as part of Council’s Detox Your Home collection day.

FOCUS FOR 2013/14
- To increase the number of properties involved in Council’s Garden Waste Collection Service by 3%.
- To increase the number of households composting food and garden waste on site.
- To investigate innovative solutions to encourage residents of multi-unit development to recycle food waste on site.
- To provide consistent and clear information to inform people of what is accepted in Council’s Kerbside Recycling bins and support this with the implementation of an educational campaign.
- To increase opportunities for residents to recycle niche products, and the volume of E-waste (batteries, mobile phones, CD’s etc) recycled in Stonnington through providing a more convenient and accessible collection / drop off service.
- To provide an online guide to inform residents of correct disposal options for common household products.
- To implement waste minimisation behavioural change initiatives to encourage staff to reuse and recycling more.
- To improve recycling and composting facilities and opportunities for staff.

- To continue to advocate to the State and Federal Government for further recycling opportunities for Stonnington residents through the National Product Stewardship Legislation.
- To advocate to the State Government for the inclusion of a Detox Your Home Program local to the City of Stonnington.
- Improve recycling practices in public places and sports pavilions, and investigate more permanent measures across the City.
Council consumes large quantities of goods and materials. These products can have varying degrees of impact on the environment, depending on how and where they are made. Similarly, Council can positively influence the environment through selecting products and materials that are manufactured locally and are made from environmentally sustainable products/recycled goods.

Purchasing sustainable products and services is a key activity through which Council can reduce its impact on the environment and implement its commitment to environmental sustainability. Council has been a member of the ECO-Buy green purchasing program since 2003, a joint initiative of the Municipal Association of Victoria, Sustainability Victoria and the Victorian Greenhouse Strategy.

Sustainable purchasing is based on the premise that every purchase impacts on the environment in some way. Environmentally preferable products are those that are less damaging to human health and the environment than comparable options (such as Green products). Council adopted its Sustainable Procurement Policy in 2003, and since this time the proportion of sustainable purchases made by the organisation has increased.

**COUNCIL’S GOALS FOR SUSTAINABLE PURCHASING**

- To reduce Council’s overall use of materials and products through implementing more efficient practices.
- To increase Council’s use of sustainable product options.
- To support the community to access local produce.

**OBJECTIVES**

- To increase the proportion of sustainable products and materials used, where suitable alternatives are available and it is feasible to do so.
- Work with staff to establish practices that result in more efficient use of materials and products with the aim of reducing Council’s overall use.
- To reduce the average number of reams of paper used per staff member.
- To include environmental specifications in major contracts for services and the purchase of high use corporate products.
- To integrate environmental criteria in tender evaluations.
- To improve community access to locally grown produce.

**ACTIONS ACHIEVED IN 2012/13**

The following actions for sustainable purchasing were achieved in 2012/13:

- Incorporated sustainability requirements into Council’s procurement policy and supporting procurement (eg. tender) documents, requiring all purchasing decisions across the organisation to give consideration to sustainable purchasing principles.
- Continued to participate in the ECO-buy green purchasing program to improve sustainable purchasing practices throughout the organisation.

**PERFORMANCE**

Enhancing the natural features of the Yarra River with sustainable material use

The Yarra River Biodiversity Linkages Project is a major sustainability initiative of Council that aims to improve a three kilometre stretch of the Yarra River and environs along Alexandra Avenue. The project will improve water quality, encourage biodiversity and natural habitat and provide a high quality example for residents and visitors to enjoy a natural environment.

The project involves the construction of paths, seating, viewing platforms and water sensitive urban design features, providing a great mix between sustainability, recreational and educational functions.

The project uses materials obtained through sustainable or recyclable sources, such as an elevated boardwalk, and a selection of picnic settings and benches all made from 100% Australian recycled plastic.

**FOCUS FOR 2013/14**

- To identify the ten most used corporate products (eg. paper) and investigate possible sustainable alternatives.
- To develop service-specific environmental specifications for inclusion in major service contracts (for example, street cleaning).
- To develop a generic questionnaire/checklist for evaluating sustainability measures proposed in tender submissions that respond to specific sustainability criteria.
- To develop and implement staff education initiatives to increase knowledge, understanding and commitment to sustainable purchasing.
- Investigate opportunities for increasing community access to locally grown produce.
The vast majority of land in Stonnington has been developed for housing, business, transport and public open space. This long term, wide scale development has depleted the natural environment and resulted in a significant loss of indigenous vegetation. There are, however, still some important areas of native flora and fauna within the city.

Biodiversity relates to the mix of native plants and animals that call Stonnington home – as such, creating a biologically diverse area requires a quality natural environment. A measure of a healthy natural environment is its degree of biodiversity. To optimise biodiversity, it is ideal for natural areas to be enlarged through the creation of corridors to facilitate the movement of animal and birdlife within and through the area.

The benefits of biodiversity for the community are numerous; not only does a high level of biodiversity result in a healthy and attractive physical environment, but it can facilitate educational opportunities, recreational activities, and add to the colour and amenity of a community.

The Yarra River and associated tributary, Gardiners Creek, form the basis of the main flora and fauna corridor in Stonnington. The water quality of these systems has significantly improved over recent decades despite continued urbanisation, population growth and intensification of agriculture in these waterways’ upper reaches.

As the City of Stonnington will continue to be highly developed, protecting and enhancing existing biodiversity areas is critical. Opportunities for building upon and expanding these areas should also be pursued. Council is concentrating its efforts on enhancing areas where some remnant habitat already exists and Council has management control over the land.

Further development of land within the City of Stonnington, and an intensification of housing will place increasing pressure on existing vegetation throughout the community. Encouraging and facilitating good management of vegetation on private land, together with significant efforts to boost ecological values on public land are high priorities.

COUNCIL’S GOALS FOR BIODIVERSITY

• To protect and enhance biodiversity.

OBJECTIVES

• To continue to invest in a number of key biodiversity sites to achieve tangible outcomes for improved biodiversity.

• To contribute to the restoration of natural values along the southern banks of the Yarra River through indigenous revegetation, weed control, habitat structure improvements and enhancing water quality.

• To develop a mechanism to objectively measure, and track over time, changes in biodiversity values to enable a cost-benefit assessment of investments at key biodiversity sites.

• To positively influence the whole treed environment in the City, including public and private sites (such as parks, roads, houses).
Council has completed Stage One of the Project. This involved works at each end of the Project boundary (Grange Road and Punt Road).

These works included:

- Indigenous riparian revegetation (planting over 35,000 plants of 73 different species);
- Construction of an ephemeral wetland system and installation of a gross pollutant trap;
- Construction of a 3m wide pedestrian boardwalk made from recycled plastic;
- Construction of two river viewing platforms; and
- Widening and upgrading the shared path and installation of solar bike path markers.

**FOCUS FOR 2013/14**

- To implement Stage Two of the Yarra River Biodiversity Linkages Project at the section opposite Herring Island, including access pathways, indigenous vegetation and developing a series of bio-retention ponds with suspended pedestrian walkways.
- To continue to invest in biodiversity and habitat management across Stonnington including the implementation of indigenous revegetation, weed control, erosion control and habitat structure improvements. This will predominantly occur at the seven key sites listed above.
- To identify feasible opportunities to create habitat corridors throughout the City of Stonnington, particularly corridors that link larger parks, gardens and reserves containing habitat values.
- To prepare a business case to seek ongoing funding for implementation of the proposed Biodiversity and Habitat Management program.
- To conduct information education sessions and planning days at key biodiversity enhancement sites with schools.
- To establish a mechanism to objectively measure, and track over time, changes in biodiversity at Council’s priority sites to enable a cost-benefit assessment of investments in biodiversity enhancement initiatives.
- To review and update, where possible, the City of Stonnington Planning Scheme to require residential housing developments to use a minimum of 50% native plants in landscaping to generate biodiversity and water conservation benefits.
- To ensure that in Council’s management of street trees, parks and gardens assets, attributes that support fauna and tree health (such as hollows) are preserved and enhanced.
- Development of a significant tree register.
Environmental education is crucial to achieving the behaviour change required to become a more sustainable and environmentally responsible community. Through education, individuals and organisations can gain the knowledge to develop the skills and values to respond to complex environmental issues.

Council has an active role in education as a primary means for equipping the community with the information and skills to enable them to affect environmental change.

An ongoing calendar of events provides residents and businesses with opportunities to learn more about the environment and how they can contribute to a more sustainable community.

These include: gardening workshops, recycling tours and electronic waste recycling days. Council also facilitates the Stonnington Green Schools Network Program which helps to connect and support Stonnington schools and kindergartens to adopt environmentally sustainable practices through excursions, network meetings and teacher resources.

COUNCIL’S GOALS FOR ENVIRONMENTAL EDUCATION

To provide effective, targeted environmental education initiatives to encourage residents, schools, businesses, community groups and Council staff to adopt sustainable practices.

OBJECTIVES

• To engage the wider community to adopt sustainable practices, through the delivery of a variety of environmental education initiatives (including workshops, seminars and online resources).

• To provide ongoing support, education and information to encourage staff to implement sustainable practices in their daily work functions.

• To continue to deliver the Stonnington Green Schools Network Program to staff and students.

• To assess the effectiveness of Council’s Environmental Education programs in influencing long term behavioural change.

ACTIONS ACHIEVED IN 2012/13

The following actions for educating the community were achieved in 2012/13:

• Delivered the 2013 Stonnington Green Schools Network program.

• Developed a Home Harvest booklet to educate residents on growing their own produce within their homes.

• Conducted a series of environmental information sessions for residents on topics such as energy efficiency, waste management, green purchasing, sustainable living, and biodiversity.
A series of improvements were made to the Stonnington Green Schools’ Network Program. The comprehensive refined 2013 program includes a greater range of sessions on waste, sessions tailored to kindergartens, and waste activity books. The 2012 program was promoted to all Stonnington primary and secondary schools and kindergartens.

The following information sessions were conducted:

**Waste and Recycling Education**
- 15 primary school waste education sessions including assembly presentations, Materials Recovery Facility (MRF) tours and Nude Food sessions
- 17 kindergarten sessions including Reduce Reuse Recycle, worm farming and litter

**Water Education**
- Two in school sessions on Water Smart Cities
- Six sessions in Glen Iris Wetlands on the Life of Macroinvertebrates

**Biodiversity Education**
- Six sessions in Glen Iris Wetlands on local flora and fauna

Six staff induction sessions were attended where information was provided on Council’s environmental education programs and sustainability initiatives. Presentations were made to approximately 90 staff in 2012/13.

In October 2012, 170 staff pledged to undertake sustainable travel as part of Sustainable Transport Week. Other actions included: car pooling, catching public transport and walking or cycling to work or meetings.

**FOCUS FOR 2013/14**
- To develop new branding which identifies Sustainability initiatives (events, educational sessions and programs).
- To establish biannual meetings for staff who provide education and engagement services to the community to share resources and knowledge and consider opportunities for collaboration.
- To investigate opportunities to incorporate sustainability topics into existing staff education, development and training (such as staff induction, lunch n learn seminars, wellbeing programs, events) to educate staff on reducing energy, water, waste and increasing sustainable transport use, through involving the staff Green Team.
- To develop and deliver the 2014 Stonnington Green Schools Network program targeting schools and kindergartens to encourage the delivery of environmental initiatives.
• To develop online and printed educational resources for residents including:
  – Recycling posters for apartments and multi-unit developments, and
• To deliver a ‘Calendar of Environmental Events’ based on energy efficiency, waste management, green purchasing, sustainable living and biodiversity, including tours, information sessions and practical workshops.
• To explore opportunities to install eye-catching interpretive signage aimed at conveying an environmental education message at key public sites.
• To utilise the newly completed TH King Environmental Education Centre as a venue for hosting residential and school environmental education programs, including highlighting the biodiversity of the local area and ESD features of the centre.
• To investigate, develop and deliver outreach programs to further engage and equip the Stonnington community and local businesses to adopt sustainable practices and reduce their environmental impact.

• To develop and implement a Sustainable Business Program, which provides support, guidance and recognition to businesses that adopt sustainable practices in relation to waste management, recycling, energy and water conservation and sustainable purchasing.
• To conduct an evaluation with program participants to gather feedback and identify opportunities for improvement, and to measure increase in knowledge and behaviour change.