

16 ENVIRONMENT QUARTERLY REPORT

FILE REFERENCE INT1754670

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RECOMMENDATION

That the report be noted.

Attachments

Nil.

EXECUTIVE SUMMARY

This report provides a summary of some key environmental sustainability projects currently being undertaken by Council. Projects have been categorised according to the Sustainable Environment Strategy themes:

- Climate change and energy conservation
- Development and built environment
- Water conservation
- Waste minimisation and sustainable procurement
- Natural systems

A similar report will be presented each quarter highlighting new programs or projects that have achieved significant milestones.

BACKGROUND

There are a broad range of environmental actions taking place throughout the organisation. While many of these occur within or are led by the Environment Unit, the vast majority of the organisation is involved in environmental sustainability to some degree. Below is a highlight of some of the key projects currently being undertaken.

All actions fall within the Council Plan 2016-17 under the key performance area of Environment 'we will continue to plan and manage the natural and built environment for present and future generations'.

Climate change and energy conservation

Council Plan action – Reduce Council's energy consumption and help the community to do likewise.

Solar rates program - new energy jobs fund

Council is making solar power more accessible to pensioner households through the Solar Saver program. It is one of the first programs in Australia enabling households to install solar PV systems and pay them off through a special charge scheme over 10 years. Council has committed through its Aspirational Energy Transition Plan to not only reduce emissions, but to support those most vulnerable to climate change impacts and increasing energy costs. This program addresses the failure of the market to provide those on low incomes with access to the benefits of solar electricity systems.

It is modelled that the average participating household will save \$100 above their additional rate repayments in electricity bills over the first year based on current electricity pricing. After 10 years, households are expected to save in the order of \$400 - \$500 per year on electricity bills (this will vary from household to household). The solar power systems will also provide vulnerable households with the ability to affordably cool their homes during heatwaves.

The program is being administered by Victorian local government greenhouse alliances, and is supported by a \$760,000 Victorian Government grant from the New Energy Jobs Fund. 22 Victorian local governments are involved. In Cardinia Shire, Council will fund the installation of up to 10 systems on pensioner households this financial year, with the costs repaid to Council over a ten year period. Council is partnering with mecwacare, our home and community care provider, who are assisting with program promotion. A Council report is being prepared in relation to the special charge scheme required by the program.

Development and built environment

Energy efficient street lighting – bulk lighting changeover

Over the past two years 770 decorative street light globes in Lakeside, Cardinia Lakes and Blue Horizon estates have been upgraded. The globes have been changed from 80-watt mercury vapour globes to 32-watt compact fluorescent globes that are energy efficient and cost saving.

The retrofit will save Council approximately \$30,000 per year in energy and maintenance charges and reduce emissions by over 150 tonnes of CO₂e per annum. The changeover of streetlights to energy efficient globes is a key action from the Aspirational Energy Transition Plan.

Council's 1000th solar panel

In 2008, Council installed its first solar electricity system on the Emerald Library. This system is being upgraded with a 23 kilowatt system which is over 10 times as large as the original system. The new system will reduce emissions by 32 tonnes of CO₂e per annum, and save approximately \$5,000 per annum in energy costs. The new system also includes the 1000th solar panel installed on a Council building, bringing the total installed capacity of these solar electricity systems to 266 kilowatts.

An event is being planned for August at the Emerald Library to promote the new solar electricity system to the community.

Water conservation

Council Plan action – Plan to manage water in an integrated manner, including the reduction of potable water consumption by Council and households.

Outcome of water audits

Water audits of both Cardinia Life and Holm Park have now been completed. The audits found:

- Cardinia Life
 - 69% of water use at Cardinia Life is pool makeup. Remaining 31% is attributed to showers and toilets/urinals. Basins, cleaning taps and dishwasher were lower consuming appliances
 - Based on the above results, upgrading of shower heads and toilet/urinals will be further investigated
 - Opportunity to extend the current water collection system (water tanks)
 - Opportunity to reduce pool evaporation, therefore reducing pool makeup
- Holm Park
 - Over 90% of water usage is attributed to irrigation, with the remaining attributed to clubroom use (majority used in showers, basins and toilets/urinals)
 - Based on the above results, upgrading of shower heads and toilet/urinals will be further investigated

- Opportunity to explore options for stormwater harvesting for irrigation or artificial turf (subject to fit for purpose use)

Living rivers new officer successful grant application

Council has been successful in obtaining a grant through Melbourne Water's Living Rivers program for a part time Water Sensitive Urban Design Officer (WSUD). This role will work across the planning, development, assets, environment, operations and engineering teams in relation to WSUD assets and also assist the delivery of some key actions from the Integrated Water Management Plan. This role will also allow Council to review and assess all the water sensitive assets that Council has and prepare a maintenance program.

Waste minimisation and sustainable procurement

Council Plan action – reduce the amount of waste going to landfill to meet the State governments waste and resource recovery policy targets.

Detox your home

Council hosted Sustainability Victoria's Detox your Home event on 29 April. This popular free event allowed residents to clear their homes of chemicals, and bring to Councils operation depot for safe disposal. Residents dropped off an average of 22.1 kg/person, the highest volume products collected were flammable liquids and toxic chemicals. Most importantly, 1328 kg of household chemical products was recycled for recovery and diverted from landfill.

Results of flexible plastics audit

Initial audits of Council's kerbside flexible plastics recycling program have been promising, showing participation by 23 per cent of households each fortnight since the program launched in November. Flexible plastic waste that can be collected in the kerbside recycling collection includes plastic bags, bubble wrap cling wrap and plastic envelopes (such as express post bags). Less than 10 percent of bundled flexible plastic waste contained items they shouldn't.

Natural systems

Council Plan action – Preserve and improve our bushland and natural environment by implementing weed management strategy and programs and continuing activities on high conservation bushland reserves and roadsides.

Schools and kinders biodiversity program outcomes

Council's 2016–17 schools and kinder biodiversity program was a success. This year four primary schools were able to participate in our bush detectives program. One class at each school had an interactive talk that introduces the basic concept of biodiversity including elements such as tall trees for owls, grasses for butterflies, mulch for beetles, logs for lizards and dense shrubs for birds. Children got to handle birds nest, look at different seed pods, see wombat skins, do science experiments with mulch and even observe real spiders.

The children used their bush detective skills to carry out a biodiversity assessment of their school grounds. After the assessment the children developed their own plan to improve biodiversity at their school. Some suggestions from the children included: removing blackberries from their wetland, applying new mulch to their bare dirt, planting some more trees and building nest boxes.

Each school was followed up by a visit from Landcare who offered to do a planting with the children.

For the first time Council has introduced a biodiversity program to kinders, due to the increasing requests from kinders.

Each kinder received an initial visit from a licenced wildlife handler who gave the children a hands-on demonstration of the different indigenous animals that live in our Shire including lizards, parrots, snakes, sugar gliders, stick insects, spiders and a tiger quoll (absolute kids favourite). He told the children what the animals eat, where they live and what can harm animals. This included a snake safety talk.

Each kinder then had a second visit where they had an interactive talk explaining how plants germinate, how they grow and the benefits of plants (food, shelter for animals etc. and insects). This included handling seed pods and using their sense of touch and smell to discover each plant used in their wildlife garden. The children then got their hands dirty and planted their new plants in a wildlife garden.

Each kinder was given a booklet of follow up information to care for their plants.

End of year summary – bushland reserves and biodiversity conservation

Over the 2016–17 financial year, Council dispersed 14 grants to 12 Friends of reserves (groups) and two wildlife shelters. These volunteer groups, including the Cannibal Creek and Emerald Star Bush projects, conservatively undertook over 1300 volunteer hours out in the field over the financial year.

The community groups for the 12 reserves have worked throughout the year primarily to keep the reserves free of litter, control weeds, act in a surveillance role over the reserve and to assist officers with ideas to forward plan future strategic works in the reserves. Our bushland reserves are of such a high environmental standard that little tree planting is generally undertaken within the sites.

The two wildlife shelters support the community by managing injured wildlife found by the community. Council refers community enquires regarding injured wildlife to the shelters.

Examples of projects where council and the community collaborated:

- Collaborated with the Friends of Mt Cannibal. This group identified limitations and constraints in the reserve car park and toilet block and also the increasing community visitation to the reserve. As a result of this, the capacity of the car park has been increased and plans have been drawn up to retrofit the toilet system. A recent car park usage survey of Mt Cannibal counted 2,745 vehicles using the reserve during the month of March 2017. This information will assist Council to prioritise future works within the reserve.
- Contributed to the Cannibal Creek Catchment Biodiversity Project. The group of eight stakeholders were successful in receiving \$90,000 grant from Melbourne Water that enabled conservation works (weed control and tree planting) in high priority areas along the 11 kilometres of target creek line.
- Provided support to the Western Port Catchment Landcare Network throughout the year, who implemented projects to support conservation works on 8 private properties. This included planting 13,300 indigenous native plants and 2.4 kilometres of fencing to protect remnant vegetation.
- Supported the Cardinia Environment Coalition (CEC) in their management of Crown Land reserves including Beaconsfield Nature Conservation Reserve and Bandicoot Corner. This included organising community working bees, informing the neighbouring community about pest plant and animal programs and fuel reduction works within the reserves.
- Provided support in the form of rubbish removal and tree planting to Toomuc Valley Landcare at the Toomuc Valley Crown Land site. Melbourne Water have responded to the input of resources by Council and the community and have completed removal of pine trees and other weeds along a three kilometre section of creek, valued at \$300,000.

In addition, Council staff worked with the developer at 555 Railway Avenue, Garfield to establish the first Southern Brown Bandicoot refuge area in the Shire, as part of the developers federal planning approval process.

Gardens for wildlife

Council has recently launched its Gardens for Wildlife program. The program is a partnership between Council and volunteers from the different land care and friends' groups in the Shire. It is designed to encourage residents to create an area in their garden for native wildlife. This can be done by providing habitat planted with locally indigenous plants, bird baths, frog ponds, nest boxes and more.

The program is free for residents to join, no matter the size or shape of their property. Once registered, a volunteer garden assessor will visit their property to provide advice about how to attract wildlife to their garden. After the visit the residents receives a report providing garden advice tailored to their property, factsheets on how to attract different wildlife, a certificate of achievement, an indigenous plant guide, weed guide, weed dabber bottle and a vibrant sticker for their letterbox to help promote the program.

The participating residents are then invited to wildlife events throughout the year and are kept up to date with the success of the program in Council's Down to Earth e-newsletter.

Council officers have facilitated an initial information session and follow-up half day training session for those in the community interested in becoming a garden assessor. Approximately 30 volunteers have agreed to carryout volunteer garden assessments in the following townships: Maryknoll, Bunyip, Lang Lang, Garfield, Beaconsfield, Upper Beaconsfield, Officer, Dewhurst, Emerald, Cockatoo, Menzies Creek, Clematis and Pakenham Upper.

This program, along with others highlighted in this report, have been made possible by the diversion of funds from the previous Sustainability Expo. The expo, while successful, was found to attract a small and select cohort of the community already engaged in environmental sustainable activities. By reallocating budget, a greater and more diverse cross section of the community have been engaged in environmental based programs. These programs will continue to be monitored against desired outcomes.

Review of completed Emerald Star Bush (ESB) community grant

The Catchment Management Authority grant of \$50,000 was successfully completed in June 2017. The grant enabled Council to collaborate with Shire of Yarra Ranges to implement weed control projects on 32 private and public land sites in the region. The grant facilitated the ESB Community Partnership Project (group) to advocate for the conservation of the ESB. They did this by conducting site visits to identify and mark ESB locations and providing advice at local markets. Signage and unique recycled plastic marker posts have also been installed to identify ESB locations. The recent community advocacy enabled the group to locate approximately 1000 new ESB plant locations.

Projects planned for 2017–18

- Finalisation and adoption of the new Waste and Resource Recovery strategy, which will inform how waste services will be planned and delivered, education focus, and strategic direction for advocacy and regional infrastructure projects.
- Finalisation and adoption of the new Sustainable Environment Strategy. The new strategy will provide an overarching framework for environmental sustainability both internally and externally.
- Review of the Pest Plant Management Strategy 2012–17
- Year one of the two-year project to development Council's first Biodiversity Conservation Strategy to provide long term direction on protection and enhancement of the natural environment.
- Implementation of the Integrated Water Management Plan (IWMP) including:
 - upgrade works outlined in the water efficiency audits of Cardinia Life and Holm Park
 - employment of a Water Sensitive Urban Design Officer to provide internal training, review and develop a maintenance schedule for all WSUD assets and develop a framework for all future WSUD assets
- Implementation of the Aspirational Energy Transition Plan (AETP) including:
 - solar electricity system on the Gembrook preschool with the support of grant funding from the Australian Government.

- continuation of community engagement programs such as the Home advisory service, Solar Saver program and Schools Solar program
- continued support and involvement in projects delivered by the South East Councils Climate Change Alliance(SECCCA)
- Continued implementation of the following biodiversity projects:
 - Peri Urban Weed Partnerships Project 2016–20 working across tenures to reduce effects of high threat weeds along Cardinia Creek Corridor
 - Emerald Lake Park Vegetation Management Project 2017–18 weed control
 - Pepis' land wetlands restoration project 2015–20 weed control and revegetation works
- Coordination of grants:
 - Annual Weed control grants to reduce weeds on private and public land
 - Annual Heritage grants to conserve places protected under the heritage overlay
- Continued community collaboration and awareness programs:
 - 2017 National Tree Day at Gembrook Park.
 - Annual Trees for Wees swap day
 - Council's first Gardens for Wildlife program
 - Schools and kinders biodiversity education program

CONSULTATION/COMMUNICATION

Where internal and external consultation has taken place it is captured in the background information above.

CONCLUSION

The 2016–17 financial year has been very successful for Council in the environment area, with major projects being completed, partnerships forming and great outcomes for the community in service delivery and biodiversity conservation.

We are looking forward to another successful year in 2017–18 with consolidating the strong relationships that have been built between Council and the community, the adoption of new strategies that will frame Council's direction in sustainability and waste management into the future and the continued implementation of the IWMP and AETP.