

## 6.5.2 Environment Council Plan Initiatives Quarterly Report

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### Recommendation(s)

That Council note this report.

### Attachments

1. Environment Council Plan initiatives quarterly report - April 2022 [6.5.2.1 - 7 pages]

### Executive Summary

This quarterly report provides an update on projects, services and actions that are undertaken by Council to deliver on the Council Plan focus area number three: thriving environments and its associated initiatives.

Priority: We value our natural assets and support our biodiversity to thrive

We place a high value on our natural assets and biodiversity. We take action to help our natural assets and biodiversity thrive and build their resilience to climate change and natural hazards. We enhance green spaces and habitat links, support our communities to live sustainably, and champion sustainable development and waste management practices.

Initiatives

The initiatives have been categorised according to the Sustainable Environment Policy (SEP) 2018– 28 themes of: Biodiversity, Climate change, Water, Waste and resource recovery

The SEP is the roadmap for the future direction of Council's environmental and sustainability strategies, plans and activities.

### Background

There are a broad range of projects, services and actions delivering environmental benefits throughout the organisation. While many of these occur within or are led by the Environment and Infrastructure Group, most of the organisation is involved in environmental sustainability to some degree.

Council Plan initiatives and how they link to the Sustainable Environment Policy themes:

- Biodiversity
  - Implement initiatives in the Biodiversity Conservation Strategy
- Climate change
  - Implement initiatives in the Aspirational Energy Transition Plan
- Water
  - Implement initiatives in the Integrated Water Management Plan
- Waste and resource recovery
  - Implement the action plan for the Waste and Resource Recovery Strategy

This report also covers the Council Plan initiative *actively protect key heritage sites within the shire*.

**Project Update**

Projects and updates are included in the attached report.

**Biodiversity**

Council Plan initiative

- Implement initiatives in the *Biodiversity Conservation Strategy*

This section also includes updates on the implementation of the *Weed Management Strategy*

**Gardens for wildlife program and plant giveaway**

Description	Gardens for Wildlife program improvements and plant giveaway launched
Funding	This program is fully funded by Council
Update	<p>The Gardens for Wildlife concept is hugely popular with residents and Council officers are committed to promoting wildlife friendly gardening.</p> <p>To keep the community engaged in the program, Council ran online workshops in 2021, which were very popular. During the online workshop series, Council's Gardens for Wildlife webpage received over 3000 visits.</p> <p>Through 2021 the Gardens for Wildlife program was reviewed in consultation with local Landcare groups and volunteers and the decision was made to cease onsite garden assessments. Onsite garden assessments have been tricky to resource, limited participation and COVID-19 restrictions stopped them all together.</p> <p>The result of the review, was to evolve the Gardens for Wildlife program to focus on:</p> <ul style="list-style-type: none"> <li>• online and in person workshops and events on a range of wildlife gardening topics</li> <li>• promotion of the Cardinia Environment Coalition (CEC) Inc Nursery as the "home base" of Gardens for Wildlife. The nursery will provide information about wildlife gardening in person during sales day and through information displays, sell plants to create wildlife gardens and have live plant displays of different wildlife gardens.</li> <li>• a series of videos will be developed showcasing resident's wildlife gardens and their stories across the shire.</li> <li>• providing schools with curriculum aligned lesson plans on Gardens for Wildlife topics.</li> <li>• Indigenous plant giveaways with wildlife gardening linkages</li> <li>• promotion and collaboration on other community events and programs that align with the Gardens for Wildlife principals</li> </ul> <p>Council in partnership with CEC are running an Indigenous plant giveaway from mid-March until Friday 17 June 2022, or while stock lasts. This promotion is open to the first 1,000 Cardinia Shire households who take up the offer of 2 free native plants to help them start their wildlife garden.</p>

**Citizen science bushland walks**

Description	Citizen science involves the community collecting records of nature observed in the environment and sharing their observations with others often through phone apps such as 'iNaturalist.' The community are our eyes and ears in our natural environment and can contribute greatly to monitoring our natural environment
Funding	This program is part of the Victorian Government's Caring for our Country funding
Update	<p>Council partnered with the Cardinia Environment Coalition (CEC) to run several community group events over March and April to demonstrate the use of citizen science to monitor the natural environment.</p> <p>Citizen science is a new opportunity for our community groups and residents to provide valuable records of flora and fauna sightings and presents a different way to become active in our reserves and in their backyards.</p> <p>This project lays the basis for future participation in events such as the worldwide citizen science 'City Nature Challenge 2022' event from 29 April to 2 May.</p>

**Wildlife sensitive lighting update**

Description	Over the last 100 years humans have progressively lit the night sky and it has had serious unintended impacts to native animals and human health. The science about artificial lighting shows a detrimental impact to wildlife. Artificial lighting in particular blue light from newer LED (cool light) stops animals (both native animals and humans) from producing melatonin and sleeping at night. This is having a devastating flow on effects, animals are staying up when they should be sleeping, changing their eating and mating patterns, some animals have stopped migrating and this is having flow on effects for the whole food chain.
Funding	Each of the eastern councils have contributed \$5,000 to the development of the lighting resource guide.
Update	<p>The Australian Environment Department has released a lengthy draft <i>Light Pollution Guidelines</i> that provides the latest science on the effect artificial lighting is having on both animals and humans. The draft <i>Light Pollution Guidelines</i> recommend to only use artificial lighting:</p> <ul style="list-style-type: none"> <li>• if needed</li> <li>• when needed</li> <li>• where needed</li> <li>• only as much as needed</li> <li>• warmer light is better (use amber instead of blue lighting)</li> </ul> <p>Council has recently partnered with eastern councils, the Department of Transport, and the University of Melbourne's Urban Light Lab to develop a resource guide for wildlife sensitive lighting which will include practical guidance, case studies and provide existing off-the-shelf wildlife-sensitive lighting solutions. The resource guide will cover all public lighting types including streetlights, car park lighting, passive reserve lighting and sports ground lighting. The wildlife sensitive lighting resource guide is due for completion by end of June 2022.</p>

## ***Climate change***

Council Plan initiative

- Implement initiatives in the *Aspirational Energy Transition Plan*

This section also includes projects that are run by South East Councils Climate Change Alliance (SECCCA), of which Cardinia Shire is a partner.

### **Draft Climate Change Adaptation Strategy – community consultation**

Description	<p>The development of the Climate Change Adaptation Strategy was a commitment made by Council in the declaration of the Climate Emergency in September 2019.</p> <p>The draft Climate Change Adaption Strategy provides the guiding pathways to reduce the community's vulnerability to adverse climate events and promote the resilience of social, ecological and economic systems.</p> <p>Adaptation planning will embed adaptive measures into Council operations and processes, as well as recommend actions for the community to reduce their vulnerability to the impacts of climate change.</p>
Funding	This project is fully funded by Council
Update	<p>The draft Climate Change Adaptation Strategy was available for public comment for seven weeks, which closed on 16 March. The draft strategy and action plan were available on Council's creating Cardinia engagement platform. Residents were encouraged to jump online and have their say on the strategy via a quick poll and survey. A pop-up stall was held at Pakenham Library, which resulting in some great conversations about climate change adaptation with a variety of age groups.</p> <p>All feedback is currently being reviewed, with an updated strategy and action plan to be presented to Council for adoption later in the year.</p>

### **Purchase of fleet vehicle offsets**

Description	Council has partnered with GreenFleet to offset 733 tonnes of unavoidable operational emissions associated with council's fleet. GreenFleet is a non-for-profit organisation that delivers native forest reforestation projects in Victoria.
Funding	This initiative is fully funded by Council
Update	These projects have driven the revegetation of disused agricultural land. Through this partnership with GreenFleet, Council has been able to offset the entire volume of light fleet related emissions and a portion of emissions associated with its heavy fleet.

## ***Heritage***

Council Plan initiative

- Actively protect key heritage sites within the shire

The Emerald Museum is aiming to host a school holiday event to run during the Australian Heritage Festival, at the time of writing this report, the event is scheduled for 20 April. The wonderful volunteers at the museum are inviting the community to come together and enjoy a morning tea with some FREE family friendly activities to celebrate our rich local history. A wrap up of the event will be provided in the next report.

## ***Water***

Council Plan initiative

- Implement initiatives in the Integrated Water Management Plan

### **Deep Creek Reserve - wetland wonders now open!**

Description	The Wetland Wonders project located at Deep Creek Reserve Pakenham aims to educate the community about the importance of waterways and wetlands to the receiving Westernport Bay. The wetland wonders project provides the community with all ability access to a demonstration wetland via three pathways to a centre boardwalk. Along the pathways you will find interactive 3D models about water bugs and migratory shorebirds. Push buttons allow visitors to hear the calls of local frog species whilst the importance of waterways to the Traditional owners, the Bunurong, adds to the overall learning experience.
Funding	This project was jointly funded by Council and the Victorian Government
Update	The wetland wonders project was opened officially to the public by the Mayor Cr Springfield and Jordan Cragnale MP on 11 February 2022. The event also acknowledged the Victorian Premier's Sustainability Award 2021, which Deep Creek Reserve won in the category of Industry Leader - Sustainable Places, focusing on the environmental education that the reserve offers, in partnership with Cardinia Environment Coalition, Ecolinc and PrimeSci.

### **Alma Treloar Reserve – gross pollutant trap**

Description	Construction of Caroline Avenue, Boronia Crescent and Rouen Road, Cockatoo, includes pavement, asphalt wearing surface, footpath, kerb and channel, and underground drainage works.  The project also includes some improvements to the existing underground drainage and water sensitive urban design (WSUD) at Cockatoo Creek from the IGA into the Cockatoo Creek.
Funding	The Australian Government is funding the sealing the hills program
Update	The Caroline Avenue road sealing project has started by installing a gross pollutant trap in the drainage system at Alma Treloar Reserve. The trap protects Cockatoo Creek by removing pollutants from the stormwater network that would otherwise flow into the waterway. The downstream WSUD works (gross pollutant trap) at Cockatoo Creek started in late March in preparation for the upstream roadside drainage works.

## ***Waste and resource recovery***

Council Plan initiatives

- Implement the action plan for the Waste and Resource Recovery Strategy

### **Recycled material in road projects**

Description	<p>The Major Roads Project Team are trialing several recycled pavement products including crumb rubber asphalt products and a recycled glass/crushed rock pavement material mix. These products will reduce the amount of material going to landfill, reduce the need for virgin material, and provide a low reprocessing effort use for recycled material that is readily accessible and easy to supply to the road construction industry.</p> <p>Crumb rubber asphalt can save approximately 1 truck tyre per 2 tonne of asphalt. Council has saved over 90 truck tyres from landfill as part of this trial.</p> <p>The amount of recycled glass used is 7.5% of the total volume of pavement material. Council is anticipating using over 1600 tonnes of recycled glass as part of this trial.</p>
Funding	<p>The projects trialing this material are being delivered under Council's Better Local Roads program and are co-funded by Council and the Australian Government. The Tyre Stewardship Australia have also contributed to the crumb rubber trial.</p>
Update	<p>The crumb rubber asphalt has been used in the sealing of Princess Avenue and Crichton Road, Emerald.</p> <p>Recycled glass has been used in the crushed rock material used for McGregor Road and Brown Road sealing projects.</p>

### **Ongoing dumped rubbish education – new signage**

Description	<p>Dumping of waste is an ongoing issue in Cardinia Shire and surrounding council areas, with councils across Victoria reporting higher levels of dumped waste over the past two years.</p>
Funding	<p>This project is fully funded by Council's garbage charge</p>
Update	<p>Throughout Covid-19 restrictions there has been an increase in illegal dumping of waste throughout Cardinia Shire and other Victorian council areas with some Councils reporting a 70% increase when compared to the previous year.</p> <p>Despite ongoing monitoring of "hotspot" areas across the shire, there is still a high prevalence of illegal dumping, particularly in semi-rural areas and on the outskirts of built up suburban areas. Illegally dumped waste is more commonly commercial and demolition waste, renovation material and commercial green waste.</p> <p>In response to illegal dumping, new signage was developed according to best-practice behaviour change principals. The new signs are a cost-effective tool that can help deter dumping behaviour, increase the likelihood of reporting and increase community awareness that we are actively tackling this issue. The signs have been installed in 16 hotspot locations across the shire with a further 8 locations proposed for the second stage of the project.</p> <p>These signs are part of a suite of education materials to complement existing auditing tools including 'dumped rubbish' tape and educational flyers.</p> <p>The introduction of the bookable hard waste service has also alleviated some of the pressure on the dumped rubbish response by providing an alternative disposal option for unwanted household material, helping to reduce dumping of household items.</p>

**Green waste drop-off events**

Description	Free green waste drop-off events provide an opportunity for residents to dispose of excess garden material for free. Helping to reduce fuel loads on private property and reduce the reliance on open air burning - a key action in the <i>Waste and Resource Recovery Strategy</i> . The garden waste collected at these events is transferred to an organics processing facility and becomes commercially sold mulch and compost.
Funding	This service is fully funded by Council through the garbage charge.
Update	<p>February's green waste drop-off was the first of many additional and more frequent drop-off events that Council has added to the schedule for 2022.</p> <p>This year, Councils has arranged six events, one every two months. Allowing for better coverage during the fire restriction period, coverage for more frequent and severe storms, and in response to community feedback from the Open-Air Burning Policy update.</p> <p>Council's first February event, held at Future Recycling in Pakenham, saw an impressive 460 users across the 4-days (25-28 Feb). This is the second highest number of residents in comparison to all of the previous drop-off events organised by council.</p>

**Clean up Australia Day results**

Description	<p>Clean Up Australia (CUA) is the nation's largest community-based environmental event, encouraging individuals and community groups to come together to clean up and conserve our environment through litter collections.</p> <p>This year the national CUA day was Sunday 6 March 2022, however participation is encouraged any day of the year. All registrants receive a free clean up kit from CUA including gloves and bags.</p> <p>Council recognises the benefit to our environment and community when residents volunteer to clean up litter in public places. To support the community, Council provides free removal of collected litter, this can be arranged any time of year by contacting Council.</p>
Funding	Both Council and Clean Up Australia support this initiative.
Update	<p>27 sites were registered across Cardinia Shire for Clean Up Australia Day 2022 (8 more than 2021). This included seven schools, one business (Cardinia Shire Council), and nineteen community groups.</p> <p>Results from 11 sites who requested Council's help to remove waste, generated approximately 65 bags of litter collected plus 5 car tyres, 5 dining chairs, 2 trollies, 1 mattress, a bike and several other bulky items. A total of approximately 22 cubic meters of rubbish collected and removed from our community.</p> <p>A big thankyou to everyone who participated this year, the waste team will continue supporting and encouraging the community to Clean Up Australia all year round.</p>



**Recycling audit results**

Description	<p>Council commissioned Tandem Solutions Pty Ltd to conduct a physical audit of a sample of materials collected from the kerbside recycling stream.</p> <p>The audit was conducted during the period of Monday 7 March to Friday 11 March 2022. Consisting of 30 samples taken from 30 different collection vehicles (6 vehicle loads audited per day, over five days). Each sample contained approximately 2 cubic metres of material, with an average weight of 128.5kg.</p>
Funding	This initiative is fully funded by Council through the garbage charge.
Update	<p>Based on the results of this physical audit, the average composition of Council's kerbside recycling is:</p> <ul style="list-style-type: none"> <li>recyclables – 71.44% by weight</li> <li>total contaminants – 28.56% by weight</li> </ul> <p>Contamination has increased by 0.77% since the last material audit in February 2021, which saw total contaminants at 27.79% by weight.</p> <p>Table 1 shows the results from 2021 compared to the most recent results. The top contaminants identified in the audit include mixed general waste (11.4%), spoiled cardboard and paper (5.3%) and bagged waste (3.4%). As well as soft plastics (1.6%), non-recyclable rigid plastic (1.5%), textiles (1.3%) and bagged recyclables (0.7%).</p> <p>However, it's important to note that bagged recyclables and bagged waste have both decreased since last year. Bags in the recycling bin was a key focus of Council's recycling education over the past 12 months, particularly the driver program.</p> <p>The waste team will continue working with the community to educate and improve waste and recycling behaviour over the next 12 months.</p>

**Table 1. Overall contaminates by weight (all samples) in comparison to previous audit.**

Material	2021	2022	Difference
Mixed waste	3.7%	11.4%	↑ 7.7%
Spoiled cardboard and paper	1.8%	5.3%	↑ 3.5%
Bagged waste	5.9%	3.4%	↓ 2.5%
Soft Plastics	1.7%	1.6%	↓ 0.1%
Non-recyclable ridged plastic	2.7%	1.5%	↓ 1.2%
Textiles	2.1	1.3	↓ 0.8%
Metal (other)	1.6	0.8	↓ 0.8%
Bagged recyclables	3.8	0.7	↓ 3.1%