

SUSTAINING LIVERPOOL.

SUMMER 2018



Did you know that
you can keep stingless
bee hives for pets,
pollination and
sugarbag honey? 🐝

Brood comb of a native
Australian stingless bee
(*Tetragonula carbonaria*) colony

LIVERPOOL
CITY
COUNCIL



In this issue

Environment Volunteer
Recognition Event

Workshop: Keeping
native bees

Love Food Hate Waste

Solar Rebates

What's On & Other Events

Image courtesy of Tim Heard

MESSAGE THE FROM MAYOR



Welcome to the Summer Edition of the Sustaining Liverpool Newsletter.

We recently held our Environment Volunteer Recognition Night. It was fantastic to see so many of our hard working volunteers and their families there on the night. Congratulations to everyone who received an award.

Volunteering is a core part of our community. Next year, we will be in the 15th year of Council's Environment Volunteers Program. It's longevity is a testament to the hard work and commitment of our volunteers, whose passion and enthusiasm is make the program a success. With our population increasing and many new developments in the area, it is important to balance growth with care for the environment. We want to ensure we create a natural, sustainable city to pass on to future generations, and we couldn't do this without you.

I look forward to seeing the program continue with much success well into the future.

In this issue of the newsletter, you can read about keeping native bees, and register for a workshop to learn more from an expert beekeeper.

You can also read about the role of mistletoe in natural ecosystems, and find out how to get rebates for installing a solar power system.

There is some important information in this edition about the quantity of food we buy that goes to waste. Also, you can read about upcoming Council events and initiatives to help the community learn how to save money and time by reducing their food waste.

There are plenty of dates for your diary including some exciting events and workshops that I recommend.

I hope you enjoy the newsletter.

Mayor Wendy Waller
Liverpool City Council

In this Issue

Environment Volunteer Recognition Event	3
Hill Top Biodiversity	4
Magical Mistletoe	5
Protecting the Lungs of Western Sydney	6
Workshop: Keeping native bees with Tim Heard	7
Love Food Hate Waste	8
Solar Rebates	9
What's On	10
Other Events	11
Environmental News and Apps	12



RECEIVE YOUR NEWSLETTER VIA EMAIL

Your edition of Sustaining Liverpool can now be sent to your email address.

If you would like to receive it electronically rather than printed, email: lcc@liverpool.nsw.gov.au

Printed on recycled paper.

**LIVERPOOL
CITY
COUNCIL**



Customer Service Centre Ground Floor, 33 Moore Street, Liverpool NSW 2170

All correspondence to Locked Bag 7064 Liverpool BC NSW 1871

Call Centre 1300 36 2170 **Fax** 9821 9333 **Email** lcc@liverpool.nsw.gov.au

Web www.liverpool.nsw.gov.au **NRS** 13 36 77 **ABN** 84 181 182 471

ENVIRONMENT VOLUNTEER RECOGNITION EVENT



Council is proud to acknowledge and celebrate the contributions that volunteers give to our community by looking after our parks, creeks and bushland areas. The 14th annual Environment Volunteer Recognition Event was held on November 15 at the Casula Powerhouse Arts Centre.

During the 14 years of Council's Environment Volunteer Program our volunteers have contributed over 19,930 hours working to restore the natural environment of Liverpool. The volunteers have planted more than 122,680 native plants in this period.

The night was well attended by regular volunteers and their families. Deputy Mayor Tina Ayyad and Councillors Harle, Kaliyanda, Rhodes and Shelton were in attendance to thank volunteers for their efforts and to help present the awards.

The major awards presented on the night include:

- 1 Environment Volunteer of the Year**
Jeff Webster
- 2 Environmental Leadership Award**
Swati Padki
- 3 Environment Encouragement Award**
Michael and Chris Vitales
- 4 Environment Volunteer Group of the Year**
Cessna Reserve, Middleton Grange
- 5 Environment Helpers**
Alyssa Priest



New members are always welcome – come join a worthwhile volunteering activity in a social and friendly environment!

Typical activities include planting of native plant species, weeding and litter removal, water quality testing and pollinator surveys. You will meet like-minded people, increase your knowledge of the environment and create habitat for local wildlife.



HILL TOP BIODIVERSITY

The view looking north west
from Pye Hill Reserve, Cecil Hills




Installation of biodiversity plantings at Pye Hill Reserve aimed at improving habitat for birds, butterflies and other pollinators.

The landscape of Liverpool, located on a wide large floodplain, is not generally recognised for its hill tops and ridge line areas. Remnant and planted vegetation in these areas play a key role for the conservation of local biodiversity. Open space areas such as Mannix Park Reserve (Heckenberg) and Pye Hill Reserve (Cecil Hills) support habitat for threatened species and endangered vegetation communities (bushland) and are important corridors for the movement of insects, birds and other animals.

Council, through the Environment Restoration Plan, continues to enhance these areas through bush regeneration works, planting of native species, management of regionally significant weeds, removal of litter, and installation of signage and fencing where required.

The “*Loss and/or degradation of sites used for hill-topping by butterflies*” is recognised as a Key Threatening Process under the *Biodiversity Conservation Act 2016*. As population declines and the threats to butterflies and other pollinators are identified through research, works to support Cumberland Plain restoration is as important regionally as it is locally.



Threatened species *Pimelea Spicata*, once widespread across the Cumberland Plain is now extremely limited in its distribution

Mistletoe found on *Melaleuca decora* tree at Brickmakers Creek, Warwick Farm.



Arboreal = animals that live in or are often found in trees. Eg. sugar gliders.

MAGICAL MISTLETOE

With Christmas, comes the European tradition of kissing under the mistletoe, where only one species is known. In Australia, we have over 80 species of mistletoe growing on a wide variety of Australian native plants.

Mistletoe are hemi-parasites meaning they have adapted to their environment by relying on host trees for water and nutrients but are able to produce their own sugars through photosynthesis. They often also take on similar leaf characteristics to blend in with their environment. Where abundant, mistletoes are often blamed for killing trees or being a risk to livestock and people.

Mystery surrounds the role they play in forest ecosystems, however, new research shows they are a key indicator of woodland health and tend to be more abundant in trees that are experiencing stress. The mistletoe themselves are part of the recovery process adding rich nutrients to the soil and leaf litter, supporting local bird and arboreal forest animals, who in turn feed on insects that cause tree disease.

The magical mistletoe is another species we are yet to fully understand, but clearly is an important part of the biodiversity picture when it comes to restoring bushland on the Cumberland Plain.

PROTECTING THE LUNGS OF WESTERN SYDNEY

Written by Jacinta Spies

*University of Technology
Sydney journalism student
and young bushcare
volunteer*

More than 90% of the Cumberland Plain, a flat region to the west of Sydney CBD, has been destroyed due to a history of land clearing for agriculture and urban development.

Residents of Western Sydney communities attend environmental regeneration activities and assessments such as weed removal and pollinator surveys to protect Sydney's Cumberland Plain Woodland.

"The Cumberland Plain Woodland used to be the lungs of Western Sydney, but now it exists mostly as small patches of isolated bushland," said Margot Law, Citizen Science Officer for the National Parks Association of NSW.

This Cumberland Plain is home to a unique ecosystem not found anywhere else in the world, including many animals that would not otherwise be able to survive in the urban landscape.

"It is important to preserve the biodiversity of our urban areas because it provides habitat to many animals. It also provides many benefits to people such as urban cooling and increased wellbeing through connection to nature," said Ms Law.

Natalie Edmonds, the Environment Volunteer Supervisor for Liverpool City Council manages groups of volunteers each month to remove weeds from the local bushland areas and help the growth of native plants.

"We want to keep these green corridors within Western Sydney to make sure that the biodiversity can keep passing through," said Ms Edmonds.

The National Parks Association of NSW is running the 'Bringing the Buzz back to the Cumberland Plain Woodland' project in partnership with Liverpool City Council, Camden Council, Campbelltown Council and the University of Sydney with support from the NSW Government's Environmental Trust.

Bringing Back the Buzz to the Cumberland Plain Woodland aims to restore the endangered ecological community in western Sydney and help its insect pollinators.

The buzz project works across six different areas in the Cumberland Plain Woodland, from Campbelltown to Middleton Grange, to protect and nurture small sections of the woodland and monitor how pollinators are responding to bushcare.

Through this project, new bushcare groups have been established to monitor how pollinators and butterflies are responding to the improved habitat. Any new species found in the area are taken back to a lab to assess their species type, habitat requirements and feeding to be added to collected data. Pollinator surveys are run every six months at the beginning of spring and autumn.

View a video of volunteers conducting a pollinator survey at the Cessna Reserve environment group in Middleton Grange:
www.youtube.com/watch?v=mVE3F2inhXw

WORKSHOP: KEEPING NATIVE BEES WITH TIM HEARD

COME AND DISCOVER THE BUZZ AROUND OUR NATIVE BEES!



EVENT DETAILS

Date: Saturday 10 February 2018

Time: 10am to 4pm (light refreshments and lunch will be served)

Cost: Free

Location: To be confirmed upon time of booking

RSVP: Places are limited. Not suitable for children under 10 years. To book your place call Council on 1300 36 2170.

Did you know that you can keep hives of native stingless bees in warmer areas of NSW, including Sydney? In this workshop, Tim Heard will teach you how.

Dr Tim Heard is an entomologist, author of *The Australian Native Bee Book*, and a long-term stingless bee keeper and promoter of native bees. This February he will be running his popular native bee keeping course in Liverpool.

Stingless bees are Australia's indigenous social bee. They are a native alternative to honey bees, harmless and well suited to school gardens. The hives are wonderful garden companions being effective pollinators of many plants and the hives will yield small amounts of delectable honey. They are great tools for environment education as they are inherently fascinating to children and have many interactions with plants and other insects.

The day will cover the topics of bee biology, importance of bees in natural systems and agriculture, rescuing bees threatened in the wild, modern methods of keeping stingless bee hives for pets, pollination of gardens and farms, and the sought after sugarbag honey.

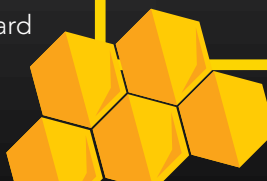
You will learn about the native stingless bee lifecycle and how to care for a hive. In the practical session of the workshop we will open a hive to observe the amazing structure within, divide the hive into two halves showing the process of colony propagation, and try the delicious sugarbag honey.

For more information about native bees and Tim Heard visit www.sugarbag.net.

ABOUT THE PRESENTER

Dr Tim Heard is an entomologist, ex-CSIRO research scientist, and also a long term stingless bee keeper and promoter of native bees. Tim completed his university doctoral studies on using these bees for crop pollination.

He has since published 60 research papers and popular articles on bees and pollination. He transferred his first hive from a cut-down tree into a wooden box in 1985 and now manages hundreds of hives of three species around south-east Queensland, obtained by rescuing threatened wild hives and dividing existing hives. He has developed new hive designs that allow for easy propagation and sustainable extraction of honey, without harming the colony. He has presented workshops and seminars for more than 20 years on bees in general and keeping stingless bees. He is the author of *The Australian Native Bee Book* (best seller and multi-award winner).



LOVE FOOD HATE WASTE

The average household in NSW throws away over \$1000 worth of edible food per year. Almost half of your household garbage bin is filled with food waste every week that could be saved or reduced. If your family could save over \$1000 a year just by eating the food that you have already bought while it's still good, imagine what you could do with the extra money!

Apart from the financial and social cost, food waste across the community comes at a huge environmental cost. All the energy and resources that were put into growing, transporting, packaging, marketing and storing the food we throw away goes to waste as does its ingredients. On top of that, organic food materials breaking down in landfill creates the powerful greenhouse gas methane, which has much greater global warming potential than carbon dioxide.

To help tackle the complex problem of food waste, Council will be running a number of initiatives as part of the NSW Environment Protection Authority (EPA) Love Food Hate Waste program.



These will include:

- Presence at the Chipping Norton Growers Markets to provide education and advice about planning meals, including portion control to avoid making or buying too much, helpful hints and tips as to how best to store food so that it will have the longest shelf life and tasty meals that can be made to use up foods that you already have and were thinking of throwing out.
When: 1st and 3rd Saturdays of the month from 8am to 12 noon (January – June 2018)
Where: Childs Park, Ascot Drive, Chipping Norton
Details: www.warwickfarmtracksidemarket.com.au
- 'Loving Liverpool's leftovers', a competition to find Liverpool's best leftover recipe. In keeping with the cultural diversity of the Liverpool region, we want to celebrate and raise awareness of all the tasty recipes from different cultures which have been developed to help use up food in the cupboard, fridge or freezer and save it from being thrown away. There will be prizes for the best recipes.
- A cooking class/workshop with a professional chef to help residents make informed choices about choosing, cooking and making the best of food, including using up leftovers.
- A series of recipe books dealing specifically with how to cook with leftovers have been added to Council's libraries to provide some clever ideas on how to use up leftover food.

For further information on any of the above initiatives please visit www.liverpool.nsw.gov.au/LFWH

To keep up to date on the Love Food Hate Waste program and learn simple actions you can take to reduce food waste in your household visit the EPA's official Facebook page at www.facebook.com/LoveFoodHateWasteNSW/

This project is a NSW EPA Waste Less, Recycle More initiative funded from the waste levy.

SOLAR REBATES

Reducing the upfront cost of your solar power system

There are a variety of financial rebates that are still available to make switching to solar energy affordable. If you buy a solar system today, it is subsidised by the federal government solar rebate scheme worth approximately \$600 per kW installed.

This rebate for solar installations is available anywhere in Australia, including the Liverpool LGA, until the scheme runs out in 2032. Under the scheme, the solar rebate will start to reduce by one 15th every year from January 2018 until it drops to zero in 2032. So it makes sense to take advantage now.

How much of a rebate will I get for my solar system?

The following table provides an estimate of the rebate that you can get for your solar system. If you are going through a solar power company, the rebate is taken off the overall price of your system. The below rebates are based on the current Small Scale Technology Certificates (STCs) price of \$35, so a 5kW solar system for your house would provide a \$3,605 subsidy. The amount of subsidy is based on the size of your system.

System Output	Small Scale Technology Certificates (STCs)	Solar Rebate* (subsidy)
2kW	41	\$1,435
3kW	62	\$2,170
5kW	103	\$3,605

* Based on an STC price of \$35.

Criteria for claiming the rebate:

1. Your PV system is less than 100kW in size
2. You get it installed and designed by a Clean Energy Council accredited professional
3. You use solar panels and inverters that are approved for use in Australia by the Clean Energy Council

For more information contact:

Clean Energy Regulator

Phone: 1300 553 542

Website: www.cleanenergyregulator.gov.au

Email: enquiries@cleanenergyregulator.gov.au

If you need an interpreter, call the Translating and Interpreting Service (TIS National) on 13 14 50

Your solar installer can handle the application of your rebate. Visit solarcalculator.com.au/solar-installers for more details.

Are you paying too much for your energy? COMPARE ENERGY OFFERS

Aside from finding efficient ways to save energy around your house to reduce the amount you spend on electricity or gas, particularly during the summer season, getting a better deal on your electricity is not as hard as you may think.

You can:

- Compare electricity and gas offers
- Then ask your existing retailer for a better deal
- If your existing retailer doesn't offer a better deal, then switch



To assist with getting a better electricity or gas offer "Energy Made Easy" is a Federal Government website to assist households compare electricity offers, including between different energy suppliers.

For more information call **1300 585 165** or visit www.energymadeeasy.gov.au/offer-search

WHAT'S ON

Join our enthusiastic volunteers who beautify their local parks and bushland by removing weeds and litter and planting native plants. Meet like-minded people, increase your knowledge of the environment and create habitat for local wildlife. Don't have any experience? Don't worry – our qualified staff are happy to provide training. All equipment is supplied.

Collimore Park Environment Group

Meet in the Collimore Park car park on Collimore Avenue, Liverpool

Saturday 8am-11am:

3 February
3 March

Amalfi Park Environment Group

Meet inside the park near the footpath on Reilly Street, Lurnea

Sunday 9am-11am:

4 February
4 March

Clinches Pond Environment Group

Meet inside the park at the Gloria Taylor Reserve sign on Swain Street, Moorebank

Saturday 9am-11am:

10 February
10 March

Weaving Garden Environment Group

Meet at the seats inside the reserve at the end of Casula Road, Casula

Saturday 12pm-2pm:

10 February
10 March

Cessna Reserve Environment Group

Meet in the reserve at the intersection of Hemsworth Ave and Stanley Ave, Middleton Grange

Sunday 9am-11am:

11 February
11 March

Chauvel Park Environment Group

Meet at the park entrance at the end of Sammut Cres, Chipping Norton

Saturday 8am-11am:

17 February
17 March

Leacocks Lane Environment Group

Meet at the park bench in Glen Regent Reserve below Astley Way, Casula

Sunday 10am-12pm:

18 February
18 March

Streamwatch

Come along to investigate the water quality of the Georges River. Meet in the Light Horse Park car park, Riverpark Drive, Liverpool

Saturday 8.30am-9am:

24 February
31 March

Light Horse Park Environment Group

Meet in the Light Horse Park car park, Riverpark Drive, Liverpool

Saturday 9am-11am:

24 February
31 March

Voyager Point Environment Group

Meet in the car park at Voyager Park on Orlando Crescent, Voyager Point

Sunday 9.30am-11.30am:

25 February
25 March

Streamwatch

Come along to investigate the water quality of Cabramatta Creek. Meet in the Ireland Park car park on Memorial Avenue, Liverpool

Sunday 12pm-1pm:

25 February
25 March

Elouera Bushland Reserve Environment Group

Meet in the Ireland Park car park, Memorial Avenue, Liverpool

Sunday 1pm-3pm:

25 February
25 March

For more information, call 1300 36 2170 or visit www.liverpool.nsw.gov.au





COMMUNITY TREE PLANTING

MANNIX PARK

SUNDAY 18 MARCH, 9AM-11.30AM

Meet in the park on Warrigo Street, Heckenberg

There will be a free BBQ lunch for all participants after the tree planting.

No experience is necessary. Council provides all tools and plants. Make sure you have closed-in shoes, a hat, gloves and long-sleeved shirt.



FREE SUSTAINABILITY WORKSHOP

Places are limited.

To book your place call Council on 1300 36 2170.

KEEPING NATIVE BEES WITH TIM HEARD

Saturday 10 February, 10am-4pm

Stingless bees are Australia's indigenous social bee. Keeping native stingless bees in hives is feasible in warmer areas of NSW, including Sydney. They are a native alternative to honey bees, harmless and they will yield small amounts of delectable honey. The hives are wonderful garden companions being effective pollinators of many plants. They are great tools for environment education as they are inherently fascinating to children and have many interactions with plants and other insects.

WORLD KITCHEN IN YOUR BACKYARD

Saturday 10 March, 10am-12pm

Come along to this workshop to learn how you can grow herbs and vegetables that are essential ingredients in cuisines from around the world. Take a journey through Asia, France, Europe, Africa and The Mediterranean to discover the unique produce that gives these distinct regional flavours and find out how easy they are to grow at home.

DATES

FOR YOUR
Diary

Love Food Hate Waste

1st and 3rd Saturday of the month from January to June 2018, 8am to 12 noon

Chipping Norton Growers Markets
Childs Park, Ascot Drive, Chipping Norton

Come and learn about planning meals, including portion control, on how to store food so it will have the longest shelf life, and tasty meals that can be made to use up foods that you have in your fridge, freezer and pantry.

Chemical CleanOut

Sunday 18 February, 9am – 3.30pm

Council's Operations Depot, 99 Rose Street, Liverpool

Drop off your unwanted household chemicals.

This free event ensures that your chemicals are disposed of in an environmentally safe manner.

You can drop off:

- | | |
|------------------------------------|----------------------|
| • Solvents and household cleaners | • Poisons |
| • Floor care products | • Gas bottles |
| • Ammonia-based cleaners | • Fire extinguishers |
| • Fluorescent globes and tubes | • Pool chemicals |
| • Batteries | • Hobby chemicals |
| • Motor oils, fuels and fluids | • Acid and alkalis |
| • Paint and paint related products | • Unknown chemicals |
| • Pesticides and herbicides | |

Please remember that:

- Only household quantities are accepted
- Maximum container size is 20L or 20kg

You can also drop off paint (water and oil based), gas bottles, fire extinguishers, motor oil and more at Council's Community Recycling Centre located at 99 Rose Street, Liverpool. The Centre is open Monday to Saturday from 7am to 3pm. For more information, visit www.liverpool.nsw.gov.au/wasteandrecycling or call 1300 36 2170.

Clean Up Australia Day

Sunday 4 March 2018

Liverpool City Council urges everyone to help look after the environment we live in by joining Clean Up Australia Day. Individuals and groups can host a clean-up site or join an existing site. Participants are encouraged to bring sunscreen, a bottle of water and wear a hat and closed in shoes. Schools and businesses can also register for Business Clean Up Day (Tuesday 27 February) or Schools Clean Up Day (Friday 2 March). For more information and to register your site, visit www.cleanupaustraliaday.org.au or call 1300 36 2170.

Earth Hour

Saturday 24 March, 8.30pm – 9.30pm

What started as an Aussie grassroots movement has grown to the world's biggest movement for climate change, now celebrated in 172 countries and 7,000 cities around the world. Each year millions of people around the globe switch off for Earth Hour to shine a light on the need for climate action. For more information, visit earthhour.org.au

ENVIRONMENTAL NEWS



WomSAT Help map wombats in your local area!



WomSAT is a new resource for recording wombat sightings across the country.

Wombats are in crisis - their survival is being impacted by a parasitic mite and they are often road kill victims. We want your help to collect information about the lives of wombats, including where you see them and their burrows in your local area.

Wombats are Australia's largest burrow builder and are essential in maintaining soil health and modifying habitats, including building burrows that provide shelter for a range of other species.

Recording wombat sightings is very easy! For more information visit womsat.org.au and download the app to become a Wombat Warrior today.

WilderQuest



WilderQuest is a children's program designed to nurture a love of nature. The program includes a website and apps with game and video content, Ranger-led tours and activities in national parks across NSW. It provides opportunities for families to experience nature, science and Aboriginal culture, online, in classrooms, at events and in National Parks.

Join WilderQuest today and become a WilderQuest Ranger. You can discover amazing places, play games, earn points and collect badges.

It has been most recently updated to include 'WilderQuest Learning' a teacher portal with free resources. Fun bug hunts, playground prowls, invertebrate investigations and Aboriginal bush lessons are just a few schoolyard activities aimed at primary school students and teachers.

For more information visit www.nationalparks.nsw.gov.au/wilderquest

SMARTPHONE APPS FOR AN ECO-FRIENDLY HOME & LIFESTYLE

PLANT LIFE BALANCE



Plant Life Balance is the fun way to green your home with your phone.

Paint fumes, furniture finishes and air pollution can make your home's air less than fresh but just one plant can make a big difference. Adding more plants can clean you air completely making you feel more relaxed, inspired and positive.

Simply choose the look you like from the seven custom styled 'living looks' that are scientifically proven to improve your air quality, then drag and drop your favourite plants over a photo of your room to see how they will make your space healthier, more relaxing and give your home a fabulous new look.

Drawing on results from a study carried out by RMIT University the app even rates the health and wellbeing of your space based on how many plants you have in it.

www.plantlifebalance.com.au.

FROG ID



FrogID is Australia's first national citizen science project that is helping us learn more about what is happening to our frogs.

Use the app to create a profile, record frog calls and match your calls to the frog calls on the app. Then upload your records to the Australian Museum frog experts for species verification.

Each species of frog has its own unique call. The app works by identify frog species by their call and geotagging to map species distribution. With your help we can put more frog species on the map and track changes to their species and habitats over time, and therefore monitor our waterways health.

www.frogid.net.au

