SUSTAINING LIVERPOOL.

WINTER 2017

Botany Bay Weevil Chrysolopus spectabilis

Did you know that I only grow 1.5 – 2.5cm in size?

In this issue

Protecting our waterways

Environment Restoration Plan project spotlight

How to select your solar power system

What's On & other events

Chemical CleanOut and e-waste

LIVERPOOL CITY COUNCIL.



MESSAGE FROM MAYOR AND COUNCILLORS



Welcome to the winter edition of the Sustaining Liverpool newsletter. With the cooler weather in full swing now is the perfect opportunity to get outdoors and into nature.

Council held a special Trees for Mum community tree planting event on 14 May at Hoxton Park Reserve in Hinchinbrook to celebrate Mother's Day. It was a beautiful day with 58 community members taking the opportunity to honour their mum and nurture the environment by planting a native tree. On this page are some photos from the planting day.

National Tree Day is a great opportunity to reconnect with nature. For a great day out with the family come join us on Sunday 30 July at Brownes Farm Reserve in Hoxton Park from 9am to 12pm. With the help of the local community we are aiming to plant 3,000 trees, shrubs and groundcovers that will provide food and shelter for native wildlife and enhance our parks. Kids can enjoy face painting and a native wildlife display, and there will be a BBQ by the Liverpool Lions Club for everyone who helps out.

We hope to see you outdoors enjoying Liverpool's beautiful natural environment. Have a look at page 10 for more activities and events where you can learn new skills and meet your neighbours.

In this Issue



Printed on recycled paper.





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



SPEAKING 4 THE PLANET COMPETITION - LIVERPOOL



Speaking 4 the Planet (S4P) is a public speaking, drama and art competition for high school students which recognises and celebrates World Environment Day.

Liverpool Council is proud to support an S4P event. The event, opened by Councillor Karress Rhodes, was held at the Casula Powerhouse Arts Centre on 14 June 2017.

Local high school students were invited to participate by preparing speeches and performances related to this year's World Environment Day theme "Connecting People to Nature". For the art category, students were asked to take their theme local and explore "Community Connections to the Georges River."

Six high schools participated and the winners were:

- Prepared Speech Winner Mahnoor Laiq, Malek Fahd Islamic School, Hoxton Park;
- Impromptu Speech Winner Mufaro Mutowembwa, All Saints Catholic College;
- Impromptu Eco-Drama All Saints Catholic College (Gabrielle Hamilton, Lily Morris, Isabella Du Mont, Christian Bialecki, Chelsea Alvar and Sam Al-Sabahi);
- Art (Painting) Year 10 Visual Arts students, Miller Technology High School;
- **Art (Drawing)** Al Zahra Khan, Unity Grammar College.

The winners were awarded opportunities to perform at numerous events including a Council meeting, a Toastmasters meeting, the Youth Eco Summit at Sydney Olympic Park and many more.





Winner, Prepared Speech Mahnoor Laiq, Malek Fahd Islamic School, Hoxton Park







Winner, Art Drawing Al Zahra Khan, Unity Grammar College

WORLD ENVIRONMENT DAY TREE PLANTING

On 3 June 2017 we held a community tree planting day at Peter Miller Park in Casula. It was a fantastic day with 400 native trees, shrubs and groundcovers planted by a group of enthusiastic community members.

Thank you to all volunteers who came along on the day and helped to expand habitat for native animals by planting locally native species in a nearby area. Everyone who lent a hand had a great time and enjoyed the tasty BBQ after all the trees were planted.

The bushland at Peter Miller Park belongs to the critically endangered Cumberland Plain Woodland (CPW) which is only found in Western Sydney. This native vegetation has been significantly impacted by past clearing, soil disturbances and weed infestation.



Under Council's Environment Restoration Plan, ecological restoration works are in progress at Peter Miller Park and will continue until June 2018. The project aims to encourage natural regeneration of the relatively significant area of remaining CPW, control of noxious and environmental weeds through bush regeneration methods and revegetation along the creek line.



YOUR ENVIRONMENT LEVY WORKING FOR YOU

The community of Liverpool has high aspirations for our waterways, in particular the Georges River. Whether it be to enjoy a casual riverside stroll, going boating or fishing, or simply enjoying the scenery, most agree that it is important our waterways are as healthy as possible for our residents, local wildlife and our city.

In an urban environment, it is difficult to retain the balance required to maintain river health. Past land management practices have led to river systems becoming 'simplified'. Waterways have been straightened, dredged or filled, and often vegetation is removed to give a tidy appearance or address flooding concerns. The flip side however, is that this simplification also reduces the river's natural ability to function and provide all the wonderful benefits our community values rivers for: habitat, clean water, recreation and amenity.

The past 30 years of river restoration research has shown that messy, complex and vegetated waterways are vital for river health. In an urban environment, we need to find a balance. In Liverpool, many of the remaining waterways are under enormous urban pressures from stormwater pollution, invasive weeds, litter, dumping, clearing of vegetation and loss of habitat for local flora and fauna.

Under the Environment Restoration Plan, Council and volunteers have helped to restore and improve the quality of riparian vegetation along 14km of waterways. The purpose of the bush regeneration work is to remove invasive species, restore habitat, remove dumped rubbish and litter and provide shade by planting native species. There is more work to be done. Pressures of pollution, development, weeds and sediment continue to degrade and have an impact on water quality.

More than 14km of riparian area restored along Liverpool Creeks in the past 10 years.

What is a riparian area?

A riparian area describes the vegetation that grows along the banks of a waterbody or waterway. Sometimes called a riparian buffer, a mix of deeprooted and shallow plants help to hold soil together, filter out pollutants and keep excess sediment from entering the water. It also provides shade, which moderates water temperature and provides essential organic matter that feeds the river food chain. Vegetation is also vital as habitat for fish and other aquatic organisms.

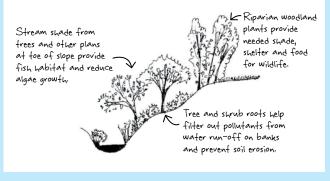


Image: rvcog.org/BENEFITS.jpg

You can help improve river health:

- Plant native trees and shrubs in your yard
- Reduce the amount of fertiliser you apply to your garden or switch to a slow release one
- Say no to single-use plastic e.g. plastic shopping bags
- Always dispose of your waste in the bin
- Pick up after your dog
- Don't dump garden waste in local bushland reserves

77777777777777777777777777777777777

Did you know?

Modified river systems store less than 2% of the carbon they used to.

(Professor Ellen Wohl, Australian Stream Management Conference 2016)

ERP PROJECT SPOTLIGHT

BROWNES FARM RESERVE RIPARIAN RESTORATION

CABRAMATTA CREEK CATCHMENT

Environmental Restoration work at Brownes Farm Reserve aimed to restore remnant Forest Red Gum rough-barked Apple grassy woodlands on alluvial flats of the Cumberland plain, an endangered ecological community protected under NSW legislation. This vegetation community also forms part of the broader Cumberland Plain Woodland, a critically endangered vegetation community listed under the Commonwealth's Environment Protection and Biodiversity Conservation Act 1999.

The riparian vegetation at Brownes Farm Reserve also forms part of a larger corridor of vegetation of regional significance which extends along Cabramatta Creek towards the Georges River.

GET INVOLVED!

Come join us here to plant trees on National Tree Day: on Sunday, 30 July 2017 from 9am - 12pm. Meet in the reserve at the end of First Ave, Hoxton Park.

12 months **Project duration:**

\$64,000 for weed **Project funding:**

control, waste and litter removal, mulching and planting

of native species

Total area restored: 7,600m²

Native plants established: 4,220

Initial weed assessment: 80% dominated by weeds (all layers)

Final weed assessment: 5% dominated by

weeds (all layers)



Brownes Farm Reserve riparian zone before works began in 2015.

The understorey was dominated by a mix of invasive weed species such as Green Cestrum, Lantana, Tradescantia fluminensis, Japanese Honeysuckle, Broad and Small-leaf Privet and Madeira Vine.



The same area in 2017.

The understorey of weeds have been removed and native Warrigal Greens (Tetragonia tetragonioides) has naturally established after a flood event, protecting the soil from erosion and preventing re-establishment of weeds. Other areas of the riparian zone are showing expansion of germinating of native species beyond those planted.

Note: Riparian areas are constantly changing environments. Over time the Warrigal Greens will be replaced by other pioneer native species as occurs naturally after a disturbance event.







GUIDED NATURE WALK

On 6 May 2017 a large group of enthusiastic local residents joined flora expert Teresa James on an early morning guided nature walk to explore the hidden treasures of Voyager Point. Tall eucalypts, mangroves, a natural wetland and cool breezes from the Georges River provide valuable habitat to a variety of marine life, aquatic birds and ground-dwelling animals.

Learning about the significance of this important natural area, the group enjoyed the opportunity to view some amazing flowering plants up close. The flowering time for most of the plants is from July to September, however flowers can generally be seen in the area throughout the year.

There are multiple walking trails at Voyager Point through natural bushland which is part of the Castlereagh Woodland community. Please respect the natural beauty of the bushland by staying on the designated walking tracks.

ERP PROJECT SPOTLIGHT

Voyager Point Bushland Restoration Project

(Includes Creekwood Reserve and The River Walk, Boronia Drive)

IMPLEMENTATION PHASE

Commenced April 2017 – Expected Completion June 2018

\$115,000 funding available

Area under management: 448,250m² (44.8ha)

Ecological Significance: Voyager Point Bushland provides an important regional corridor connecting the Georges River to the Holsworthy Military Area, and the Heathcote, Royal and Dharawal National Parks. Bird diversity is high and unique among Liverpool reserves with Regent Honeyeaters and Swift Parrots known to frequent the bushland. Two endangered plants have also been found within the reserve, which is known to be home to more than 128 native species.

Bush regeneration works will target a range of noxious and environmental weeds with priority given to infestations of:

- Boneseed
 - (Chrysanthemoides monilifera subsp. monilifera)
- Lantana (Lantana camara)
- Ground Asparagus (Asparagus aethiopicus)
- **Bridal Creeper** (Asparagus asparagoides)

Council will provide updates as works progress.



The banks of the Georges River struggling under a blanket of Ground Asparagus and Bridal Creeper



Lantana occurs in isolated patches in the understorey

HOW TO SELECT YOUR SOLAR POWER SYSTEM

With the increase in electricity prices from July 1 this year, households are becoming savvy with their energy and water usage to reduce the burden on the household budget. Many residents have implemented energy efficiency measures including upgrades in LED lighting and draught proofing and are now considering installing solar energy.

Common questions that many residents have are "Will solar benefit my home?" and "How do I select my solar power system?" Energy expert John Caley, who has run some of Council's sustainability workshops, shares some tips for a household to consider:

Electricity usage

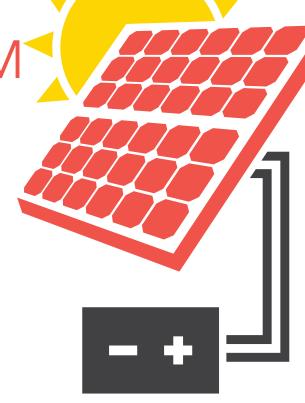
- Work out your average daily electricity usage. This is shown on each quarterly bill on a graph as kilowatt hours per day.
- Decide whether you want to match this average daily usage.

Solar power output

- Next work out what size system would supply the average daily usage.
- In Sydney, the average daily output per 1 kW of optimally oriented panels is 3.8 kWh/day. So divide the average daily electricity usage by 3.8 to get the nominal photovoltaic (PV) power system which would produce this amount of electricity.

Solar panel array size

- Solar panels are typically 1.0m x 1.6 m.
- The rated output of a typical solar panel is 250 Watts. So if you get a 1.0Kw solar system, you'll need four solar panels, or for a 1.5Kw system you'll need six panels.



Other ways to save money on your power bills:

DIY Draught-proofing

Visit greenityourself.com.au to watch videos on how to draught-proof your home and many other tips on how to make your home more energy efficient.

Electricity Retailers

The Green Electricity Guide provides a credible rating of the greenness of electricity suppliers. Find out more at greenelectricityguide.org.au.

Appliance Energy Ratings

The Australian Government provides a great database of energy ratings of appliances at reg.energyrating.gov.au/comparator/product_types



Want to learn more?

More information is available at the upcoming FREE workshop

Date: Saturday, 12 August, 10am-12pm

Location: Carnes Hill

RSVP: To book your place please call Council on 1300 26 2170

GREENING YOUR TRANSPORT CHOICE



Around 400,000 Australians regularly ride a bike. Cycling has some terrific personal benefits – it will save you money, improve your fitness and make you feel great. Swapping short car trips with a bike ride can also help the environment as bike riding is a pollution-free mode of transport. By taking your bike you'll also be contributing to a quieter and safer neighbourhood.

So how do you start? If you haven't been on a bike since you were a kid you'll need a gentle introduction to riding to build up your confidence. You'll be surprised how quickly you can improve your skills and fitness with basic instruction and some social recreational rides.

National Bike Week in NSW runs from 16-24 September 2017. Liverpool City Council, the Liverpool Bicycle Users Group and ABC Bikes will be celebrating the week with rides and a community maintenance session. LiveBUG also runs free recreational rides every two weeks (beginners are welcome and no-one is ever left behind).

Children under 16 must be accompanied by an adult.

So take a first step. Dust off your pedals and take a gentle spin. Your body and your planet will thank you.



BIKE WEEK

Saturday 16 September | Spring into Liverpool Greenway Park, West Hoxton

Drop by the bike stand for maintenance tips, maps and information about local rides.

Sunday 17 September | Carnes Hill

- Bike maintenance session
- Family and beginners ride
- Adventurous beginners ride

Sunday 24 September | Liverpool Loop Ride

An easy 25 km ride starting from Liverpool Station, following the T-way cycleway, Orphan School Creek cycleway and the Rail Trail. Stop at Canley Vale for morning tea and then back to Liverpool.

See www.bikeliverpool.org.au for more details.

COMMUNITY CONSULTATION AT LIGHT HORSE PARK



Liverpool City Council is undertaking research to inform future planning to upgrade Light Horse Park, the only park in the Liverpool city centre with access to the Georges River.

There is a long history of community involvement with the park. In 1988, the Lions Club handed the park over to Liverpool City Council having transformed the six hectares of unusable riverbank into a beautiful riverside passive recreation and picnic area with children's playground.

To continue this process, Council has been undertaking community consultation to gain perspectives on and

experiences at the park, and to discuss ideas for a revitalised park. To date, this has involved surveys with park users, a community lunch at the park, two local school workshops and interviewing local stakeholders. Discussion topics have included park cleanliness, safety, use and quality of infrastructure, access to the park and suggestions to improve the park.

Council would like to thank everyone who has contributed and we will continue working with the community as plans for the park progress.

For further information, please contact the Community Planning Team on 9821 7773.

CHEMICAL CLEANOUT

There's no time like the present to clean and clear your home, laundry, shed or garage of unwanted household chemicals!

The next Chemical CleanOut will take place on **Sunday, 6 August 2017** at the Liverpool City Council Operations Centre at 99 Rose Street, Liverpool between 9am and 3.30pm.

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

You can drop off the following materials:

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



- Hobby chemicals
- Acid and alkalis
- Unknown chemicals

Please remember that:

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

Visit www.liverpool.nsw.gov.au/chemicalcleanout for more information.

Do you want to get rid of paint, oil or batteries but are unable to attend the Chemical CleanOut? The Community Recycling Centre accepts, for free, these problem wastes, gas bottles, fire extinguishers and so much more! For more information about Liverpool City Council's Community Recycling Centre visit www.liverpool.nsw.gov.au/crc or contact Council's Customer Service Centre on 1300 36 2170.

COUNCIL ACCEPTS YOUR ELECTRONIC WASTE FOR FREE 6 DAYS A WEEK

From 1 July 2017 electronic and small electrical appliances (e-Waste) are no longer collected through Liverpool City Council's general household clean-up collection service.

Please drop off your e-waste for recycling at: Liverpool City Council's Community Recycling Centre (CRC) 99 Rose Street, Liverpool Open 8am to 3pm, Monday to Saturday

Examples of e-Waste accepted at the CRC include:

- Televisions
- Video and DVD players
- Stereos and speakers
- Printers
- Fax machines
- Electronic games and toys
- Game consoles
- Digital and video cameras
- Desktop and laptop computers



- Computer monitors
- Keyboards
- Computer mouses
- Hard drives
- Motherboards,
- Network, video and sound cards
- Cables
- Microwaves
- Vacuum cleaners
- Hairdryers
- Alarm clocks
- Toasters and kettles
- Irons
- Drills and other power tools

Please note: The Household Metals & Whitegoods collection service remains unchanged. Use this service to dispose of fridges, freezers, washing machines and dryers for recycling. Please contact Liverpool City Council on 1300 36 2170 at least four weeks before the required collection date to make a Metals & Whitegoods booking.

ENVIRONMENT ACTIVITIES CALENDAR: JULY - SEPTEMBER 2017

WHAT'S

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. No experience is necessary. All equipment is supplied.

Collimore Park Environment Group

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

Saturday 8am-11am:

- 5 August
- 2 September

Amalfi Park Environment Group

Meet near the Brickmakers Creek bridge crossing at Reilly Street, Lurnea Sunday 9am-11am:

- 6 August
- 3 September

Clinches Pond Environment Group

Meet at the playground on Swain Street, Moorebank

- Saturday 9am-11am:
- 12 August 9 September

Weaving Garden Environment Group

Meet at the Casula railway station car park at the end of Casula Road, Casula

Saturday 12pm-2pm:

- 12 August
- 9 September

Cessna Reserve Environment Group

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

Sunday 9am-11am:

13 August 10 September

Chauvel Park Environment Group

Meet at the car park on Epsom Road, near the roundabout on Alfred Road, Chipping Norton

Saturday 8am-11am:

19 August

16 September

Leacocks Lane **Environment Group**

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

Sunday 10am-12pm:

20 August

17 September

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:

29 July

26 August

30 September



ight Horse Park **Environment Group**

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

Saturday 9am-11am:

29 July

26 August

30 September

Voyager Point Environment Group

Meet in the car park at Voyager Park on Orlando Crescent, Voyager Point Sunday 9.30am-

11.30am:

30 July

27 August

24 September

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:

30 July

27 August

24 September

Elouera Bushland Reserve **Environment Group**

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

Sunday 1pm-3pm:

30 July

27 August

24 September

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









COMMUNITY TREE PLANTING

CRAIK PARK

SATURDAY 19 AUGUST, 9AM – 11.30AM Meet in the park on Eleventh Ave, Austral

LANCASTER PARK

Bushcare Major Day Out

SUNDAY 10 SEPTEMBER, 9AM – 11.30AMMeet in the park on Truscott Ave,
Middleton Grange

BEARD CREEK

SATURDAY 7 OCTOBER, 9AM – 11.30AM
Meet at the Carnes Hill Community and Recreation
Precinct on Kurrajong Road, Carnes Hill

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

WORKSHOPS

Places are limited.

To book your place call Council on 1300 36 2170.

SOLAR ENERGY

Saturday 12 August 10am – 12pm

In this workshop you will learn what a solar power system is and why you would install one. We will also cover how to choose a solar power system, how to choose an installer and whether to install battery storage.



CHEMICAL CLEAN OUT

Sunday 6 August, 9am – 3.30pm 99 Rose St, Liverpool

There's no time like the present to clean and clear your home, laundry, shed or garage of any unwanted household chemicals! Only household quantities are accepted. Visit www.liverpool.nsw.gov.au/chemicalcleanout for more information.

NATIONAL STUDENT VOLUNTEER WEEK

14 - 20 August

This week aspires to challenge and celebrate young people who are striving to make a change through volunteering. For more details visit nationalstudentvolunteerweek.org.au/nsvw-about

SPRING INTO LIVERPOOL

Saturday 16 September, 12pm – 9pm Greenway Park, West Hoxton

Come join us to celebrate all the great things that gorgeous weather means – getting out in the sun with your family and furry friends, being active, enjoying the garden and cooking with delicious fresh spring produce. There will be three stages, market and food stalls, rides, activities and workshops and the movie *Sing* will screen at 6.30pm for all to enjoy.

15 November 2017
SAVE THE DATE
ENVIRONMENT VOLUNTEER
RECOGNITION EVENT

This is an annual event to thank and recognise the work of volunteers who are restoring the natural environment of Liverpool though Council's Environment Volunteer Program. Regular volunteers will receive an invitation to this event in the mail. If we haven't seen you in a while there are still plenty of opportunities to get involved in our activities.



INS & OUTS OF COUNCIL'S DOMESTIC WASTE SERVICES WORKSHOP

Saturday 12 August 2017 9.30am – 12.30pm

Do you know the right way to use your domestic waste and recycling bin and are you taking full advantage of all the council domestic waste services that are available to you? This workshop will introduce you to the basics of recycling using the three-bin system, utilising the household clean up service and other Council services. It will also cover waste avoidance and shopping sustainably. Places are limited.

NEVS ...

Plastic Free July

1 – 31 July



The plastic bottles, bags and takeaway containers that we use just for a few minutes consist of a material that is designed to last forever. Plastic Free July aims to raise awareness of the problems with single-use disposable plastic and challenges people to do something about it. Joining the challenge is quite simple... choose to refuse single-use plastic during July. You'll be joining more than a million people worldwide from 130 countries making a difference.

Visit **www.plasticfreejuly.org** for more information.

QuestaGame



Get outdoors - to your backyard, a local park, a hiking trail, anywhere! See which birds, insects and other wildlife are more easily spotted in your location at the current time of year. Join quests and compete with other players to photograph animals and plants in the wild. You can earn gold, buy supplies,

gain levels, build your collection, join clans, conquer territories, move up the leader board and become one of the great adventurers of all time.

All sightings are geo-tagged with location, date, time and submitted to a national database – so you're not only mapping your conquests, you're also helping scientists, researchers, planners and others record and protect you region's biodiversity while you play.

questagame.com

SMARTPHONE APPS FOR AN ECO-FRIENDLY HOME & LIFESTYLE

NPWS SELF-GUIDED TOURS



SELF-GUIDED TOURS

NSW National Parks and Wildlife Services (NPWS) Self-guided Tours presents information to help you plan the selected walk and insight about the wonderful wildlife likely to be seen or heard at each carefully selected stop. It provides a deeper understanding

about the diversity of life within our parks and why they are so amazing. Update the app each month to see new walks to choose from.

NATURE NEAR ME



Explore and share the unique and wonderful places of nature in NSW. Use the map to view different types of nature places like old-growth forest, rainforest, woodlands, grasslands, great spots to see animals, marine sites, whale watching locations, great views, rivers,

wetlands and more. Plan your nature journey and create your own itineraries to gain access to sites when your device is out of range. Set alerts to be notified of approaching nature places, and share places using social media.

MEALBOARD



Do you wish meal and grocery planning could be made easier and quicker?

MealBoard is a fully customisable app which gives you the power to organise food activities – import and store recipes, create weekly

meal plans, keep track of what you have in your pantry and automatically generate your grocery shopping lists with what you need to buy by taking into account what you already have at home.

Fully customisable, this app could save a lot of time and effort, and prevent a lot of duplicate shopping.

www.mealboard.com



