save waterways

EDITORIAL

By JAKE HUBBARD and CHRIS WHITE

SIX million tonnes of rubbish finds its way into the world's oceans every year. Most people agree that this shocking amount of marine debris is unsightly and has a huge impact on marine life and sea birds. But is it horrifying enough for the public to actually do anything about it?

The annual Bay to Bay Fun Run took place recently; the race's route followed the foreshore from Woy Woy Bay to Gosford Sailing Club. At face value this route is impressive and picturesque, indeed the subject of many photographs published in local calendars. When you look more closely at the actual foreshore what strikes you is the huge amount of marine debris that has been washed up and remains there.

Statistics collected by the Tangaroa Blue Foundation from October 2012 to March 2013 showed that in Brisbane Water alone there were 19,028 individual items of rubbish collected. The top items collected were plastic bottles, plastic packaging, glass beer stubbies and premixed alcohol bottles.

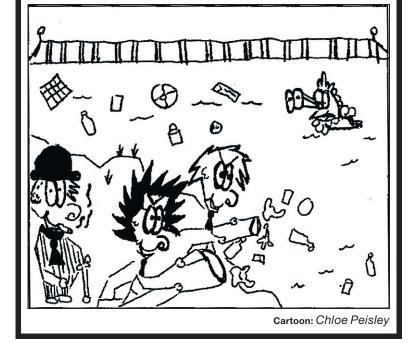
These alarming statistics are backed by a local schools litter

survey. Students collected litter from a 50m x 2m stretch of the foreshore that borders Brisbane Water Drive. In less than half an hour they had collected more than 255 pieces of debris. These ranged from oyster grower trays to thongs, tennis balls and car tyres. The most frequent type of litter items collected were plastic bottles (54) and beer stubbles (64).

The aim of many litter lessening programs has to be a combination of removing debris from the coastline and tracking the source of the litter to find ways of stopping it in the first place.

The major contributor to rubbish is the throwing away of bottles. One solution could be to introduce a container deposit scheme where 10¢ is returned to consumers when they give back their bottles for recycling. A cash for container scheme could be present at bottle shops and clubs that are positioned near the wharves. This scheme operates in South Australia and the CSIRO has reported there is far less plastic bottle litter coming onto those shores.

An independent study for the NSW Local Government Association (2012) has shown that councils could be \$183 million better off under a national cash for containers scheme. That means more money for other council services as well as making the local environment cleaner, safer and more appealing.



Cash scheme can **International** food funding

By CHLOE PEISLEY

AT The Croft, students are fundraising by running an international restaurant. This involves cooking different types of food from around the world to raise money so students can hopefully go on an end-of-year excursion to the Gold Coast.

The international food days are every second Wednesday.

Students take turns cooking with the help of teacher aide Karen. Each student researches a cuisine and chooses a dish to represent their country.

Once the recipe is obtained, students shop for ingredients. The dishes are cooked on the Wednesday and served to staff and students. They must also clean up afterwards. Each serving costs \$5. So far the café has been opened five times and has raised approximately \$260.

Student Chloe Peisley recently had her turn.

"I chose America as I would like to visit the USA in the future. I served pumpkin pie and chocolate brownies with ice-cream. This was a big hit with the staff and students, and it was my favourite dish so far.'

Other dishes on the menu include Mexican tacos, French crepes, Italian pasta, and Indian butter chicken. The program not only helps raise funds, it teaches students skills including shopping, money handling and food pie and brownies. preparation.



TREATS FROM THE USA: Student Chloe Peisley serves up American pumpkin

Picture: Tristan Somerville

The magic of a steam **locomotive**

By **BOWEN PARSONS**

CHILDREN and adults agree there is something fascinating about steam trains.

They are among the most beautiful things ever built powerful, fast, streamlined and sometimes very quiet.

They were invented 400 years ago by Thomas Savery, an English military engineer and inventor who patented the first steam engine in 1698.

Steam engines are driven by high-pressure steam. But to get steam, first you need water, a heat source and fuel. The fireman shovels coal into the fire box (like a mini-furnace) which sits under the boiler (a long tube full of water).

The heat then travels through small tubes under the water and heats the water to very high-pressure steam. Then the steam goes two ways. Some goes out the funnel but most goes into the pistons, which are the main power for the engine.

The fastest steam locomotive ever built was the Mallard sleek and streamlined with awesome speed and a smart design. On July 3, 1938, the Mallard reached a speed of 202.58km/h a record among steam trains.

The most powerful steam locomotive is Big Boy, which weighs over 566 tonnes and can pull a load of up to 4450 tonnes.

Steam trains are amazing machines that continue to impress young and old.

Best mountain bike trails on the peninsula

By **ZAK ROWE**

USING their new iPads, The Croft's students have compiled a breakdown of three of their favourite mountain bike rides.

The Warrah Trig ride starts at Patonga Drive and ends at Pearl Beach and is $3.8\,\mathrm{kilometres}$ long. It is mostly a downhill ride with some tricky bends which may challenge the less experienced rider. There are some great jumps where confident riders can get a lot of air.

A challenging ride is

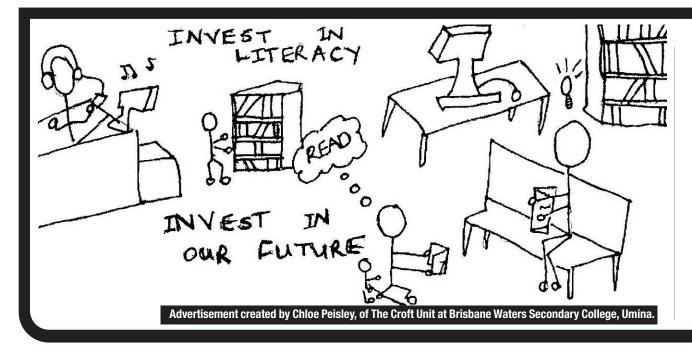
from the speed camera on Woy Woy Road to Umina. It is 8 kilometres long, mostly downhill, but provides some good workouts on the uphill section. It finishes with a 3-kilometre downhill on track and then picks up speed on the asphalt.

Another steep ride fin-ishing uphill is the 3-kilometre ride from Wards Hill Road to Fisherman's Bay. This ride has good jumps and steep sections where the back brake needs to be used. for the brave.



This ride is short but only **GREAT TRACK:** The beginning of the Warrah Trig ride. Picture: Tristan Somerville

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