

## MAKE EVERY DROP COUNT IN BALLINA SHIRE

**New investigations to find and repair water leaks are underway across Ballina Shire as part of a \$1.5 million Pressure and Leakage Management Plan.**

Ballina Shire Council's Manager, Water and Wastewater, Tim Mackney said the program was a timely reminder of how much every drop counts.

"Under Ballina Shire Council's \$1.5 million Pressure and Leakage Management program we have continued with the next phase of investigating water losses across Ballina," Mr Mackney said.

"These investigations involve taking measurements of noise to detect and locate any water losses at customer water meters, council valves and hydrants, and on the ground.

"It's important we find and repair leaks as soon as possible to prevent further water loss.

"Most of our investigations are conducted at night when there is less traffic noise with a focus on older infrastructure in the southern half of Ballina island, which has the most water loss.

"Initial estimates indicate we could save up to 190 mega litres of water per year just by repairing water leaks within that area."

Mr Mackney also said contractors undertaking the works would also be able to identify unexpectedly high water flows in private water meters within the area. This may indicate leaks within private plumbing and residents will be informed.

*For more information about Council's Pressure and Leakage Management Plan visit [ballinawater.com.au](http://ballinawater.com.au) or to report a water leak phone Ballina Shire Council on 02 6686 4444.*



## Improved infrastructure for Cabbage Tree Island

**Ballina Shire Council recently upgraded ageing infrastructure on Cabbage Tree Island to ensure local water and wastewater assets continue to run smoothly.**

Included in this program of upgrades, undertaken on behalf of Jali Local Aboriginal Land Council (LALC), was the completion of an upgrade to the Cabbage Tree Island sewage pump stations in May 2016.

Ballina Shire Council's Manager, Water and Wastewater, Tim Mackney, said the upgrade had been made possible under an agreement with the NSW government and Jali LALC in Ballina.

"Council has upgraded and replaced the two pump stations at Cabbage Tree Island and will continue to maintain and service the pump stations under an agreement with the NSW Government," Mr Mackney said.

"The upgraded pump stations will benefit the Cabbage Tree Island Aboriginal community."

Funding for the upgrade was made available from the Aboriginal Communities Water and Sewerage Program – a 25-year \$200 million joint investment by the NSW Government and the NSW Aboriginal Land Council to improve water and sewerage systems in Aboriginal communities.

"It's a credit to teams of workers across Council that the upgrade was completed on time and within budget to provide a high quality and cost effective solution for the local community," Mr Mackney said.

"Our concreting crews, workshop, electricians and wastewater crews have worked together over several months; firstly manufacturing equipment and fittings, and then transporting, constructing and installing on site.

"The agreement provides improvements to the ageing infrastructure owned by Jali LALC while ensuring Council is reimbursed for carrying out those works."

# THE WAIT IS OVER! RECYCLED WATER IS HERE.

In July 2016 recycled water will start at  
Lennox Head and will roll out across Ballina Shire.

Recycled water is: ✓ crystal clean and safe ✓ cheaper to use ✓ available 24/7 and in drought.

## RECYCLED WATER IS A KEY TO MEETING FUTURE DEMANDS FOR WATER.

During drought it means more water is preserved for drinking, cooking and bathing. Recycled water costs only 80 per cent of the usual water rate and will be available at new properties.

### Recycled water CAN be used for:

- ✓ cold water washing machine tap
- ✓ irrigating sports fields, food crops and gardens
- ✓ ornamental ponds
- ✓ toilet flushing
- ✓ washing cars, bikes and boats.

### Recycled water CANNOT be used for:

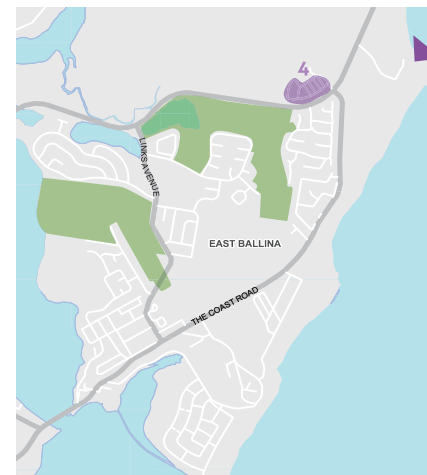
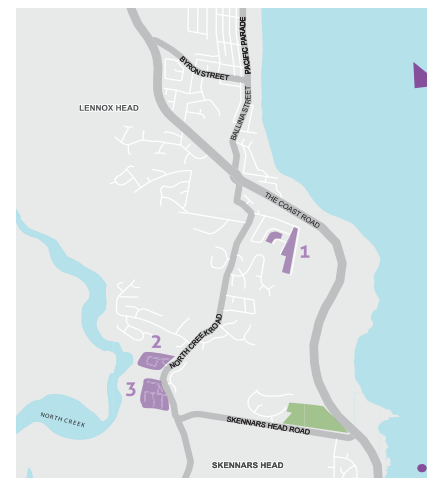
- ✗ drinking
- ✗ cooking or other kitchen purposes
- ✗ baths, showers or other personal washing
- ✗ swimming pools or other leisure water use
- ✗ rainwater tanks.

## DID YOU KNOW?

### RECYCLED WATER IS ALREADY BEING USED FOR ROADWORKS AND TO IRRIGATE:

- ✓ Ballina Golf and Sports Club
- ✓ Ballina Racecourse
- ✓ Saunders Oval
- ✓ Fripp Oval
- ✓ Chickiba Park
- ✓ Skennars Head Fields
- ✓ Farms and nurseries at Alstonville and Tuckombil.

## WHERE WILL RECYCLED WATER BE DELIVERED FROM JULY?



- Open spaces and sporting fields already receiving recycled water
- 1 Coastal Grove Estate
- 2 Aspects Estate
- 3 Elevation Estate
- 4 North Angels Estate

## HOW IS RECYCLED WATER KEEPING OUR WATERWAYS CLEAN?

Treated at Lennox Head and Ballina Treatment Plants, and delivered through purple taps, recycled water reduces the impact of wastewater discharge.

### Need more info?

Check out our new water website

[www.ballinawater.com.au](http://www.ballinawater.com.au)

T (02) 6686 4444 E [council@ballina.nsw.gov.au](mailto:council@ballina.nsw.gov.au)



## Tour the New Recycling Water Treatment Facility

# COMMUNITY OPEN DAY SATURDAY 9 JULY 10AM-2PM

Come along to our Community Open Day to inspect the impressive new recycled water treatment facility at the Lennox Head Wastewater Treatment Plant. This is a unique opportunity to see the treatment processes that wastewater undergoes before it is delivered to local households as recycled water.

Each tour will take approximately 30 minutes and there will be 15 people per tour. If you are bringing a group of more than 10 people please book a scheduled tour time.

Please wear comfortable enclosed walking shoes and a hat (or umbrella if raining). You are welcome to bring a water bottle.

**Date:** Saturday 9 July

**Time:** 10am-2pm

**BYO:** Wear enclosed shoes, hat and bring an umbrella if it looks like rain.

**Location:** 352 North Creek Road, Skennars Head

**Enquires:** Communications Officer, Ballina Shire Council, 02 6686 4444 or email [council@ballina.nsw.gov.au](mailto:council@ballina.nsw.gov.au)

**BOOKING ESSENTIAL FOR GROUPS**

## RECYCLED WATER GOES WITH THE FLOW

Located at North Creek Road, the Lennox Head Wastewater Treatment Plant collects and treats around four million litres a day of wastewater.

Wastewater is transformed at the plant to recycled water through a number of treatment processes in accordance with the Australian Guidelines for Water Recycling and the NSW DPI Water Guidelines for Recycled Water Management Systems.

Council must operate its treatment plants in accordance with approvals from the Environment Protection Authority and DPI Water, with concurrence from NSW Health.

Most of the wastewater at the Lennox Head Plant is from 11,000 local homes along with a small number of commercial premises. The plant is capable of producing up to 4.5 million litres of recycled water a day.

### 1. Inlet works

Wastewater enters the treatment plant. Solid waste is sifted out and removed into bins for disposal. The remaining liquid is fed into one of three extended aeration tanks.

### 2. Extended aeration tanks

In each tank, micro-organisms play a key role in refining wastewater by consuming soluble contaminants such as ammonia and nitrate. Phosphorus is also removed. A reactor also aerates and de-aerates, settles and decants the clean water off the top which is then pumped into nearby catch and balance ponds.

### 3. Catch and balance ponds

The ponds catch any solids that remain after the wastewater has been delivered from the tanks and the balance pond stores treated water during busy times.

### 4. Flow splitting

Water from the ponds is then pumped to final recycled water processing section where it will be split for either delivery to local properties or discharged to the environment.

### 5. Membrane filtration

Recycled water that is being treated for delivery to local properties passes through ultra-filtration membranes where liquids and any microscopic solids are separated. This process removes tiny bacteria, protozoa and viruses from the water. The clean water flows through the centre of the membrane fibres before entering pipes on its way to the UV disinfection unit.

### 6. Ultra violet disinfection

Ultra-violet light kills any remaining harmful organisms, as part of the disinfection process.

### 7. Disinfection and recycled water storage

Recycled water enters a channel inside the storage tank where it undergoes a further disinfection process called chlorination. The chlorinated water is stored in the tank before it enters the boosted pump station where it is pressurised before being piped into houses, businesses and recreational areas through purple pipes.

The Lennox Head and Ballina plants have 24 hour online monitoring equipment and will automatically shut down if water quality cannot be guaranteed. Further intensive weekly, monthly and annual sampling confirms that recycled water is consistently within required specifications.



Learn more at Council's dedicated water website  
**[ballinawater.com.au](http://ballinawater.com.au)**

## AUDIT OF RECYCLED WATER SYSTEM PAVES THE WAY FOR LAUNCH

**An official launch of Council's dual reticulated (recycled) water system will be held on Friday 1 July at the Lennox Head Wastewater Treatment Plant.**

In April, an external audit of Council's recycled water system paved the way for approvals for the new recycled water service from NSW Office of Water in the NSW Department of Primary Industries, and NSW Health.

Ballina Shire Council's Manager, Water and Wastewater, Tim Mackney said the audit found Council's Recycled Water Management System to be fully compliant with the requirements of the Australian Guidelines for Water Recycling and the NSW Guidelines for Recycled Water Management Systems.

"Everyone is excited that Ballina will be the first regional Council in NSW to deliver recycled water to residents as we stay on track to ensuring water is available for future demands," Mr Mackney said.

"It's a credit to our teams across Council that a recent audit commended Council's extensive processes to support its Recycled Water Management System including its water quality database, maintenance management system, monitoring plans, incident and emergency plans and community engagement programs.

"The audit included field site visits to the Lennox Head Wastewater Treatment Plant and interviews with key staff to confirm the accuracy of documents supporting the introduction of recycled water.

"In addition, council staff members underwent extra training, which has included participating in emergency response training on 18 March."

Recycled water marks the start of a new chapter for Ballina Shire that has been many years in the making.

"That we will soon be delivering recycled water for household uses such as washing clothes, watering gardens and flushing toilets, is a major breakthrough," Mr Mackney said.

"Through using recycled water for general purposes, more drinking water will be preserved for essential uses such as drinking, cooking and bathing."

Recycled water will initially begin at approximately 160 new homes in the estates of North Angels Beach, Coastal Grove, Aspects and Elevation and will be rolled out to 7200 households in the Shire.

Recycled water dual reticulation schemes have been in operation in other locations around Australia since the early 2000s. Ballina Shire Council will be the first regional council in NSW to begin using recycling water for domestic purposes.



## Why hiring a licensed plumber is a 'must do'!

**Did you know that you are required by law to use a licensed plumber?**

This is due to the plumbing system being vital to the functioning of most homes. While most handy people can manage the smaller repairs such as changing a shower head, plumbing problems can get out of hand fast.

Sadly, most people find out the hard way that plumbing should always be left to the licensed plumbers.

The very smallest leak can lead to costly repairs and damages, if it's not caught in time.

So remember before you start, attempting certain repairs can be dangerous to your house, harmful to yourself and downright illegal!

*For more information or to find a licensed plumber please visit [licensedtrades.com.au/licensed/plumbers](http://licensedtrades.com.au/licensed/plumbers)*



## RECYCLED WATER FAST FACTS

**Ballina Shire Council's new factsheets explain everything you need to know about recycled water, whether you live, work or holiday in Ballina Shire.**

The factsheets aim to provide information that is relevant for all customers and service providers.

Highlights include factsheets dedicated to helping owners, builders, plumbers, real estate agents, pharmacists and doctors.

There's also Frequently Asked Questions and factsheets dedicated to explaining the pricing and treatment of recycled water and how to dispose safely of chemicals.

Please visit [ballinawater.com.au](http://ballinawater.com.au) and go to 'Water Connections' and 'I'm Connected What Next'.

Look out for information displays at local events or for treatment plant tour enquiries contact the Communications Officer on 02 6686 4444.