



Let's
Thrive!

YOUR GUIDE TO A WATERWISE GARDEN



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A MESSAGE FROM **TAMWORTH REGIONAL COUNCIL**

We all share a love for the Tamworth region – it's where we live, work and raise our families. It's why we drive to be more sustainable in everything we do.

Water is one of our most precious resources, and we can all play a part to help ensure it is used efficiently at all times.

When our dams and rivers are healthy and Permanent Water Conservation Measures are in effect, that's when we often look for inspiration to bring our outdoor spaces to life.

Let's Thrive is a Tamworth Regional Council initiative designed to encourage waterwise gardens and outdoor areas, no matter the space or budget.

Over the last 20 years, an analysis of water consumption shows that Tamworth would consume between 50 and 60 megalitres per day on the hottest days of the year.

However, in more recent years, it has become a rarity for consumption to even reach close to 50 megalitres per day.

Our community should be proud of this positive change in their water use behaviour.

Now, we are presented with the opportunity to build on our water sustainability achievements, and become an even more resilient community.

Small changes in our daily lives can have a significant impact on the long-term sustainability of our region.

We recognise how important gardens are to our residents and the enjoyment gardening brings to many people. Let's Thrive offers residents practical tips to create water wise gardens, so our community can be better prepared for the future – saving water, money and time.

It's an initiative the whole family can get involved in, and children are encouraged to explore water efficiency from a young age.

It's why Sonny the Sustainability Scout and his friend Skye the Magpie are on board to help our youngest residents learn about Let's Thrive.

Sonny is on the lookout for sustainable friends to join himself and Skye on their mission to make the Tamworth Region a healthier and happier one.

An interactive website with games, activities and fact sheets all linked to the NSW school curriculum has been developed to help inspire the next generation to reduce waste, to reuse and recycle at school and at home.

Sonny & Skye are a key part of Councils commitment to make environmental sustainability a priority.

Next time you see them at a community event or school visit be sure to say hello.



STATE OF THE NATION

WE AREN'T ALONE IN THE WORLD

The Tamworth Region is not the only place in the developed world that experiences periods of drought that places stress on its water supply.

Countries, states and cities with similar climates to the Tamworth Region are all gearing up for a water sustainable future, including places like Las Vegas, California and Israel.

Las Vegas has what it calls a 'mandatory water schedule', as well as 'turf limitation codes'.

Turf limitation codes stipulate that no new turf is allowed in front yards, and that fifty percent of side and rear yards or 100 square feet, whichever is greater, may be grass.

Las Vegas has for the last several years also been running a rebate program where residents are paid \$2 per square foot to rip out and replace existing turfed areas with alternative ground covers.

Drought-stricken California is finding itself having to install water meters in around 255,000 homes and businesses that had become accustomed to using as much water as they wanted, or chasing the entitled rich and famous - like one resident in the swanky Beverly Hills area of Los Angeles who clocked up 44.6 million litres annually, enough for 90 homes.

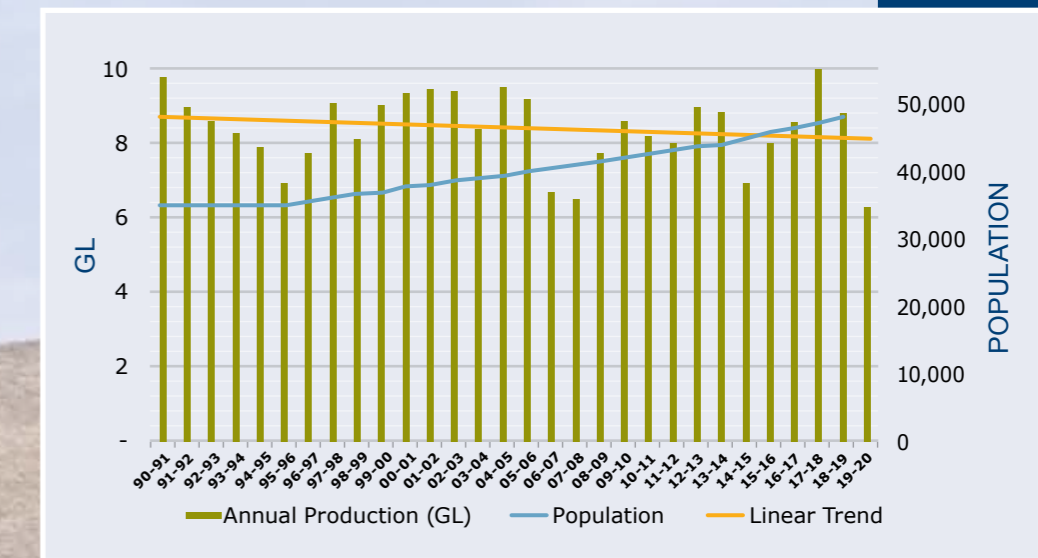


Santa Barbara, California, USA - January 1, 2016: Falling water levels at Lake Cachuma due to severe California drought leave the locks at Bradbury Dam high and dry.

By definition Israel should have failed due to its lack of water resources, but instead has developed a clever, holistic, integrated approach over several decades.

Israel uses its groundwater, drills deep wells, extensive desalination, reusing treated wastewater for agriculture, finding and fixing leaks early, engineering crops to thrive in harsh conditions, discouraging gardening, making efficient toilets compulsory, pricing water to discourage waste, and using drip irrigation everywhere.

In the Tamworth Region, key documents have been developed and are followed to ensure measures are in place to minimise the use of water and safeguard the water supply into the future.



Tamworth Consumption ML's

Graph showing a slow decrease in drinking water consumption over time at Calala Water Treatment Plant.

WATER MANAGEMENT

THE BASICS

Residents across the Tamworth Region do an outstanding job when it comes to observing water restrictions.

Council has a long-term plan for managing access to its seven water supply areas across the region.

The two key documents for Council's management of water are the Demand Management Plan and the Drought Management Plan.

When a water supply drops to a certain level, the next level of water restrictions is introduced. The trigger system is followed for each supply every time.

A review to water restrictions takes place every Monday morning. Any recommendations to change water restrictions will be in place the following week.

This is so everyone has time to learn about the change, as warnings, fines and flow restriction can apply to those residents who do not comply with water restrictions.



Photo credit: Chris Plevey, Manilla Weir, Manilla NSW

THE TYPICAL LOCAL

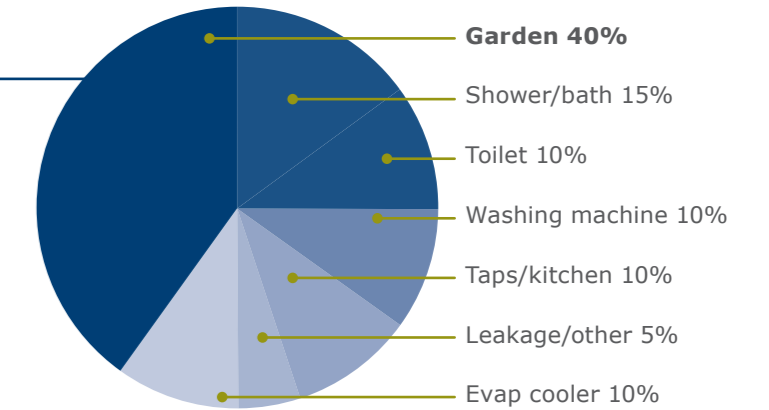
TYPICAL RESIDENTIAL WATER USAGE

This chart shows how water usages is broken down for an average residential home in the Tamworth region. As you can see, 40% of all residential water use is outside.

By applying more sustainable water garden design and practices, this volume of water can easily be optimised, which will add up to a significant reduction in overall consumption of our drinking quality water.

Following the most recent drought on record, 2019/2020, 500 residents were surveyed to gain an understanding of their experiences with drought and water usage.

This helps Council understand where we can improve our communication and education around water efficient practices during both drought and non-drought periods.

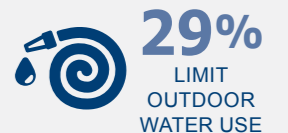


WATER USAGE BREAKDOWN

WHAT THE COMMUNITY DID DURING THE DROUGHT.



WHAT THE COMMUNITY DOES DAY TO DAY.



FACTS ABOUT CHAFFEY DAM

Chaffey Dam is owned, operated, managed and controlled by the State Government water authority known as WaterNSW.

In the same post-drought survey, it was found that 43% of residents incorrectly identified Tamworth Regional Council as the owner and operator of Chaffey Dam.

It's important that residents understand who owns and operates the infrastructure that helps bring water to our taps. The more informed the community is, the greater understanding they will have about the reasons and timing of water restrictions.

Tamworth and Moonbi-Kootingal are one of many customers accessing water from Chaffey Dam.

Other WaterNSW customers, which includes high-security and general-security license holders, can also access water from Chaffey Dam.

This is important information when considering how water restrictions trigger levels should be set for Tamworth and Moonbi-Kootingal.

Setting higher water restrictions levels when Chaffey Dam has more water in it won't necessarily save water for residents to use at a later date because the other customers of the dam will have access to this water. While Tamworth and Moonbi-Kootingal is supplied a certain volume of water, the remaining water can be sold to other customers.

As of June 30 2020, there were 214 licenses with a 47,002 megalitre entitlement along 590 km of the Peel River, drawing on the 100,000 megalitre Chaffey Dam, including:

General security / entitlements
29,635 megalitres

High security / industry entitlements
804 megalitres

Stock and domestic requirements
163 megalitres

Town water supply (Tamworth, Moonbi-Kootingal)
16,400 megalitres



YOUR LAWN AND
GARDEN HAVE
GREAT TASTE

Just remember, it's
drinking quality water
that you're pouring on
your garden.

Options such as installing a small rainwater tank are generally cost effective and will ensure that the water you use to maintain your garden isn't always tapping in to the quality drinking supply.

Council provides residents with water in accordance with the stringent Australia Drinking Water Guidelines, which are overseen by the Australian Government's National Health and Medical Research Council.

Water that has been treated to drinking quality standard should be considered precious and used accordingly.

Drinking quality water takes time, labour and is expensive to produce and as such, charges need to be passed onto the consumer. So, saving water will save you money.

According to the United Nations, at least 1.8 billion people globally use a source of drinking water that is contaminated, so we should consider ourselves fortunate to have access to drinking quality water.

FIND YOUR *inspiration*

WATER EFFICIENT GARDENING AND ALTERNATIVE GROUND COVERS

TRAIN
YOUR
LAWN

ALTERNATIVE
WATER
SOURCES

SPACE
AND
PLANNING

ALTERNATIVE
GROUND COVERS

Pavers - Mulched Natives
- Artificial Grass - Con-
crete Products - Decora-
tive Gravel & Rockeries -
Packed Earth

IRRIGATION
SYSTEMS
AND WATER
CONTROL

SHADE

TRAIN YOUR LAWN

For those of us who have lots of space and lawn there are ways in which we can keep it alive, while being water efficient.

If you have to plant new turf, choose a variety that is more drought tolerant.

Kikuyu, couch and buffalo are all good options. Ask your local turf supplier for more information.

To help get your new turf established, apply for a 6-Week New Turf Water Management Plan through Council.



Use sprinklers and soaker hoses for a more consistent spread of water to your area.



Water in the mornings and evenings as to avoid the heat of the day.



If water restrictions allow, water for longer time periods and less frequently.



Get to know your lawn. Different varieties require different amounts of water.



Keep an eye on the weather. If it's going to rain, or has rained. You don't need to water your lawn.



ALTERNATIVE WATER SOURCES

RAINWATER TANKS

Options such as installing a rainwater tank are generally cost effective and will ensure that the water you use to maintain your garden isn't always tapping into the drinking quality water supply.

Tanks are easy to use and come in a variety of styles to suit every home.

Rainwater tanks can also provide you with free water all year round and are not affected by water restrictions.

GREYWATER TREATMENT AND DIVERSION SYSTEMS

Greywater is wastewater generated by the shower, bath, hand-basin, and washing machine but does not include "blackwater" which is generated by the toilet.

Greywater from your home is a resource and can be reused on-site for garden and lawn irrigation, or if treated appropriately, for toilet flushing and washing machine use.

Reusing greywater will not only reduce the demand on drinking water supplies, but it will also reduce the amount of wastewater discharged to the environment.

In 2020, Council made an amendment to the Tamworth Regional Development Control Plan 2010 which encourages residents to install waterwise products and increase the reuse of greywater.

Small scale developments such as homes and dual occupancies are required to consider installing water sensitive products including greywater devices to be eligible for a faster development application process.

For more information about greywater reuse and the Fast Track Development Application process, call into Councils Development Hub counter in Peel Street, Tamworth.

THERE ARE THREE WAYS YOU CAN RE-USE GREYWATER:

GREYWATER TREATMENT SYSTEM:

- Requires prior approval from Council before installation
- A Greywater Treatment System must be accredited by NSW Health
- A licenced plumber must install the treatment system and make any modifications

MANUAL BUCKETING AND DIRECT DISPOSAL

- Does not require prior approval from Council

GREYWATER DIVERSION SYSTEM:

- Approval not required, but only if:
 - It is installed by a licenced plumber;
 - It must be installed with sub-surface (underground) irrigation;
 - The land does not have an existing on-site sewage management facility;
 - Certain legislative performance standards are achieved;
 - Persons do not come into contact with untreated sewage or effluent; and
 - No Impacts on amenity of premises and adjoining properties.
- A Self-Certification Checklist is available through Council.



SPACE AND PLANNING

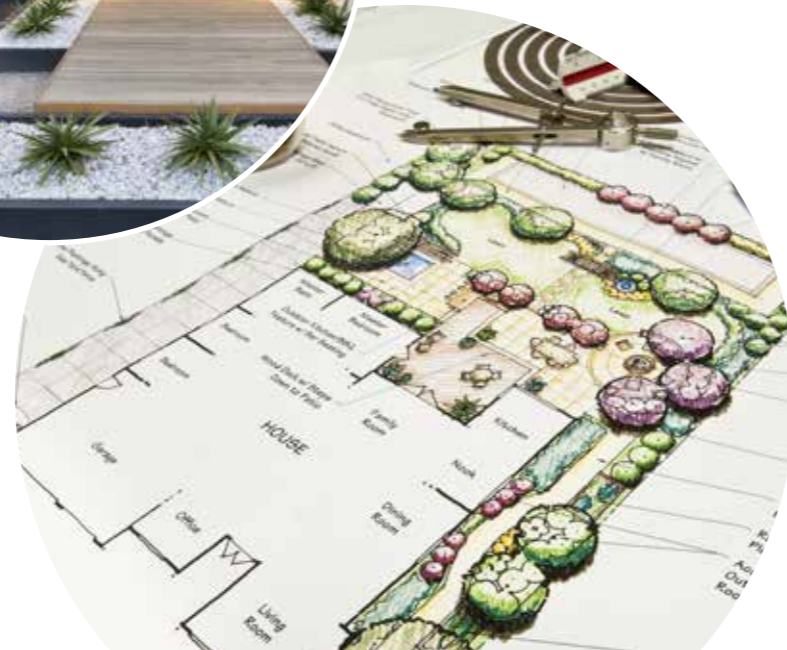
Planning and design are essential elements of any great outdoor space.

It's important to consider the space you are working with and how this will best fit your needs.

Using lawn or turf to cover your outdoor areas can be done in a smart way, to ensure that you are still conserving water.

A usable stretch of lawn or turf is a great thing, particularly if you have young family members wanting to run, play, kick a ball or swing a bat.

However, there are a large number of alternative groundcovers to lawn and turf that are practical, low-maintenance and attractive.



ALTERNATIVE GROUND COVERS

PAVERS

Pavers are a great choice if you're looking to build a path, outdoor living areas, or those small frustrating spaces you have to keep mowing, but are not usable.

By installing pavers, you are not only reducing the area that requires watering, you are creating an area that is hard wearing and low-maintenance, and that gives you a huge range of eye-catching design options.



MULCHED NATIVES

Australian native plants can be a highly attractive and colourful option for your waterwise garden – and they're uniquely ours.

There is also a difference between native and indigenous plants.

Native plants can be found anywhere in Australia, while indigenous plants are more specific to a local region or even a particular area.

Using indigenous plants is a great way of developing a waterwise garden that will thrive naturally in the local climate and environment.

Some other non-native plants such as Mediterranean species can also work very well in our local region. Make sure you check with your local nursery that the plants you're buying are non-invasive species.

The application of mulch will increase retention of moisture in the soil and prevent weeds from competing with your plants.



ANIMALS APLENTY

Native plants and gardens are habitats for local species, in particular birds.

There are certain types of natives you can plant that have a higher chance of attracting interesting local birdlife that can be a charming addition to your waterwise garden, as well as providing them with a safe haven to eat, drink, nest and breed.

Some good bird-attracting native plants for your garden are:

Acacia Boormanii (*Snowy River Wattle*) 1.5- 2m

Acacia Howittii (*Dwarf Weeping Wattle*) 1-1.5m

Allocasuarina Cunninghamiana (*River She Oak*) 15m+

Correa Glabra (*semi-shade*)1-1.5m

Grevillea Junipera species (*Groundcover Grevillea*) 400mm

Grevillea Robusta (*Silky Oak*) 15m+

Westringia 'Wynabbie Gem' (*Coastal Rosemary*) 1-1.5m

Callistemon species e.g *Callistemon Viminalis* (*Weeping Bottlebrush*) 4m+

Callistemon Citrinus (*Lemon scented Bottlebrush*) 3m+

Dianella Revoluta (*Blue Flax Lily*) 1m

Dianella Tasmanica (*Tasmanian Flax Lily*) 1m

Hardenbergia Violaceae (*Native Sarsaparilla*) 1-2m

Lomandra 'Katrinus' 1m

Lomandra 'Tanika' 500mm

Eucalyptus species 2m- 20m



ARTIFICIAL GRASS

Artificial grass has come a long way in its realism and range of options.

There are many products now available giving the consumer a choice of colours, lengths, styles and types.

Artificial grass is low maintenance, hard-wearing and clean.



CONCRETE PRODUCTS

Concrete products like logs, sleepers and surfaces can be used to cover areas, parts of areas or to build paths.

Concrete groundcovers that resemble wood look fantastic, will last forever, and are not food for termites.



PEBBLECRETE

Pebblecrete is a mix of small pebble aggregate and concrete that is poured and then has the pebble aggregate exposed to form a textured surface.

It can be used as a clean and tidy trim for pools, for building paths, or for neat outdoor living spaces.



DECORATIVE GRAVEL & ROCKERIES

Decorative gravel can be used as a zero-water alternative to cover areas that have little foot traffic or practical use.

A wide range of gravel sizes, colours and textures make it a flexible and creative groundcover alternative to thirsty lawn.

Likewise larger rocks can be used to fill spaces and form features that add character and dimension to your waterwise garden.

The addition of decorative gravel areas and rockeries is limited only by your imagination.



PACKED EARTH

Decomposed granite is a great material to create a hard-wearing, low-maintenance packed earth pathway or outdoor living area.

This aggregate is, as its name suggests, a natural decomposition of granite rock into gravel form, and can be sourced in a variety of colours.

There are other alternative materials based on clay and lime that can also be used to achieve a durable surface.



IRRIGATION SYSTEMS AND WATER CONTROL

A well-designed garden irrigation system will ensure that you optimise your water use outdoors, and help save money and time.

Drip irrigation systems are the most water efficient way to water a garden.

Sub-surface drip irrigators apply minimal water directly to the root systems of plants with very low evaporation.

The slow rate of application means that no water is wasted through run off.

Drip irrigation requires lower water pressures than sprinklers.



Sprinklers

A simple solution to watering the garden can be a movable sprinkler attached to the end of a garden hose.

There are some great products available that apply water in large droplet form, minimising evaporation loss and wind drift. The ideal rate of application is about 12mm per hour.

Tap timers

Tap timers further increase efficiency by supplying strict volumes of water during optimum times of the day to further avoid evaporation.

Timers are also a great way to avoid those moments of absent mindedness when water systems or sprinklers are turned on and forgotten.

Tree Wells

These simple devices help apply water directly and quickly to tree roots. Simply position the water well around the tree, fill it with water and leave.

Trigger nozzles

In the Tamworth region, when high levels of water restrictions aren't in place and outdoor water use is permitted, a trigger nozzle must be attached when using a hand-held hose.

These are relatively inexpensive and the self-closing triggers help prevent water wastage.

Wicking Beds

A wicking bed is a garden bed with a waterproof lining which holds a reservoir of water at the base.

In a wicking bed, the water is drawn up through the soil via 'wicking' through the damp soil below up to the drier soil. In other words, it waters from the roots up.

Wicking beds are low maintenance once installed and only need to be watered every now and then by filling up the reservoir.



Shade

The addition of features that produce shade cuts down on direct sunlight which can significantly reduce evaporation.

Shaded areas can also reduce heat produced from hard surfaces, allowing for the installation and comfortable use of alternative groundcovers such as pavers, concrete and gravel.

REAP THE BENEFITS

PRODUCTS AND FINANCIAL ASSISTANCE COUNCIL CAN OFFER YOU

REBATES FOR WATERWISE PRODUCTS

Australia is the driest continent on earth and the Tamworth Region can be very dry place, so Council is proactive in assisting residents to optimise their water consumption, at all times.

Through its residential water saver rebate scheme, Council offers financial assistance to residents who install waterwise products in and around their home.

Council will pay 50% up to a certain dollar amount on a range of products.

For the full list of available rebates and the terms and conditions, visit Council's website.

SMART APPROVED WATERMARK

PROVIDES INFORMATION TO HELP YOU ACHIEVE WATER EFFICIENCY

Smart Approved WaterMark is an international water efficiency scheme that certifies products and services that save water.

Council has access to range of water sustainability products, resources and services from Smart Approved WaterMark to share with residents.

You can access this information by visiting: www.tamworth.nsw.gov.au/live/environment-and-sustainability/water-sustainability



HERE'S ONE WE PREPARED EARLIER

COUNCIL'S SHOWCASE GARDEN

Council partnered with TAFE NSW to develop the low-water-use garden.

If you're out and about and would like to have a closer look at some waterwise alternative groundcovers and plants, swing by Council's showcase waterwise garden.

Council partnered with TAFE NSW to develop the low water-use and drought-tolerant garden on an unused site at the front of Tamworth Library and Regional Gallery on Peel Street.

The garden is designed to showcase a variety of attractive ground cover alternatives that residents can install instead of thirsty lawn and turf.

Residents are not being asked to avoid lawn altogether, but if they can cover a percentage of their property with some of these water-neutral or low-water-use alternatives, this could represent a significant reduction in treated water consumption, particularly in Summer.

TAFE students completed all design and installation work as part of their actual Horticulture and Recreation curriculum, with Council providing the space and funding for the materials.

Decomposed granite was used to build the pathway, with coarse mulch covering the plantings, and rocks and gravel used to create the rockery and 'dry river bed' effect.



WATERWISE PLANTS

SCIENTIFIC NAME	COMMON OR GARDEN NAME
Acacia Fimbriata dwarf form	Dwarf fringed Wattle
Acacia Cognata 'Limelight'	Dwarf Bower Wattle
Casuarina Glauca 'Shagpile'	Groundcover Casuarina
Correa Alba	White Correa
XDianella Revoluta Cultivars	Blue Flax Lily
Dianella Tasmanica 'Tas Red'	Tasmanian Flax Lily
Eremophila 'Kalbarri Carpet'	Groundcover Emu Bush
Eremophila 'Pancake'	Groundcover Emu Bush
Eremophila Maculata	Emu Bush
Escallonia Bifida Iveyi	White Escallonia
Gazania Tomentosa	Silver Treasure Flower
Grevillea 'Apricot Glow'	Medium growing Grevillea
Grevillea 'Lady O'	Small growing Grevillea
Grevillea 'Pink Midget'	Dwarf Grevillea
Hardenbergia Violaceae 'Alba'	Native Sarsaparilla
Hardenbergia Violaceae 'Regent'	White Native Sarsaparilla
Leucadendron 'Misty Sunrise'	Apricot Leucadendron
Leucadendron 'Yellow Countess'	Yellow Leucadendron
Lomandra 'Blue Ridge'	Blue Foliage Lomandra
Lomandra 'Lime Devine'	Lime Foliage Lomandra
Loropetalum 'Purple Pixie'	Purple Foliage Chinese Witch Hazel
Myoporum Parvifolia	Creeping Boobialla
Nandina Domestica 'Moon Bay'	Dwarf Sacred Bamboo (not actually a Bamboo)
Osteospermum Cultivars	Freeway Daisy
Phormium Tenax Cultivars	Dwarf New Zealand Flax
Polygala 'Little Poly'	Dwarf Polygala
Rosmarinus Officianalis 'Prostratus'	Groundcover Rosemary
Salvia Species	Perennial Sage
Scaevola 'Pink Perfection'	Pink Fan Flower
Scaevola 'Purple Haze'	Purple Fan Flower
Teucrium Fruticans	Bush Germander
Westringia 'Wynabbie Gem'	Coastal Rosemary
Westringia 'Zena'	Dwarf Coastal Rosemary
Zephyranthes Candida	Autumn Crocus



HANDY TIP!
 When planning your trip to the landfill, stack your ute or trailer in the recommended categories.

DID YOU KNOW?
 Just using a rope is often not enough to cover and secure your load.

SORTING YOUR GREEN WASTE TO HELP MANAGE WEEDS AND INVASIVE SPECIES.

When separating your green waste for landfill, sort your green waste into the following categories:

-  **Grass clippings and weeds**
-  **Tree and shrub clippings**
-  **Large stumps**

Weeds and invasive species are plants that can have a negative effect on the environment.

Sorting your green waste before you take it to landfill helps Council staff to separate out weeds and invasive species to make a higher quality mulch. This high-quality mulch is available for residents to purchase at Forest Road Waste Management Centre.

To avoid inconvenience visit Council's website for current prices and availability.

COVER AND SECURE YOUR LOAD UNCOVERED OR UNSECURED LOADS CREATE LITTER AND HAZARDS FOR OTHER ROAD USERS.

Cover your load with an appropriate tarp/cover and secure tightly with a rope.

Ensure loose materials can't blow out of, or fall from, your truck, trailer or ute.

Fines can apply for failing to cover and secure your load properly.





Let's
Thrive!

CONTACT US

1300 733 625 | tamworth.nsw.gov.au | trc@tamworth.nsw.gov.au

Ray Walsh House, 437 Peel Street, Tamworth NSW 2340

