

A close-up photograph of a plant with several bright pink, spiky flowers. One flower is in full bloom, while others are in various stages of development. A single, elongated leaf is shown with several distinct holes, indicating insect damage. The background is a soft, out-of-focus brown.

Let's
Thrive!

YOUR GUIDE TO A WATERWISE GARDEN

COUNCIL HAS A
RANGE OF PRODUCTS
 FOR YOUR WATERWISE GARDEN PROJECT

Council can help provide some alternative ground covers and materials for your waterwise garden project, including:

MULCH

ROADBASE

DECORATIVE GRAVEL

BEDDING SAND

To avoid inconvenience and for current prices/availability, contact Council on **02 6767 5555** or visit **Council's website** for current fees and charges.



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A MESSAGE FROM TAMWORTH REGION MAYOR

We share our love of the Tamworth region – it’s where we live and work and where we raise our families.

Right now, we are experiencing a period where our dams are close to full and rivers are flowing, but this doesn’t mean we should be complacent regarding water conservation. It’s important to think ahead, and ensure our everyday habits are helping our region to thrive in the longer term.

Small changes that we can all make in our daily lives can have a significant impact on the long term sustainability of our Region, and we all have a part to play.

This information brochure has a range of helpful ideas and tips on how you can make small changes to the outdoor space around your home. By creating a sustainable garden or backyard, you can help our community thrive and prepare for the future.

Council is here to help you prepare for periods of drought, and in doing so, ensure that we are all working together to make Tamworth the waterwise region.

~ Mayor Col Murray



A NOTE FROM THE WATER SUSTAINABILITY OFFICER

An analysis of consumption across the last 20 years shows that Tamworth routinely consumed up to between 50 and 60 megalitres per day on the hottest days of the year.

Over the last decade it has become a rarity for consumption to even reach 50 megalitres per day.

Our community deserves a huge pat on the back for this positive change in behaviour.

During the 2016/2017 summer in particular, although extremely hot temperatures were recorded, water consumption was markedly low.

There are various factors for why the water levels in the seven

supply areas across the region drop, but climate and rainfall is the main factor.

If there is consistent rainfall in the catchment surrounding a water supply, then that supply is continually replenished, and agricultural users don’t require large volumes because farmland is saturated.

When there is little rainfall, and the weather is hot, agricultural users want to utilise their full allocations and supply levels begin to drop more quickly.

Likewise, although consumption is markedly lower, residents do use more during these hotter, drier periods.

Evaporation during hotter weather is also a factor in drops in water supply levels.

The Tamworth region has what is known as a variable climate, meaning that amounts of rainfall change over long cycles.

Over the next few years we have the opportunity to further build on our great water sustainability achievements, particularly our outdoor residential usage.

We hope you find this booklet inspirational and helpful when working on your own outdoor spaces.

~ Ian Lobban

STATE OF THE NATION

WE AREN'T ALONE IN THE WORLD



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

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'.

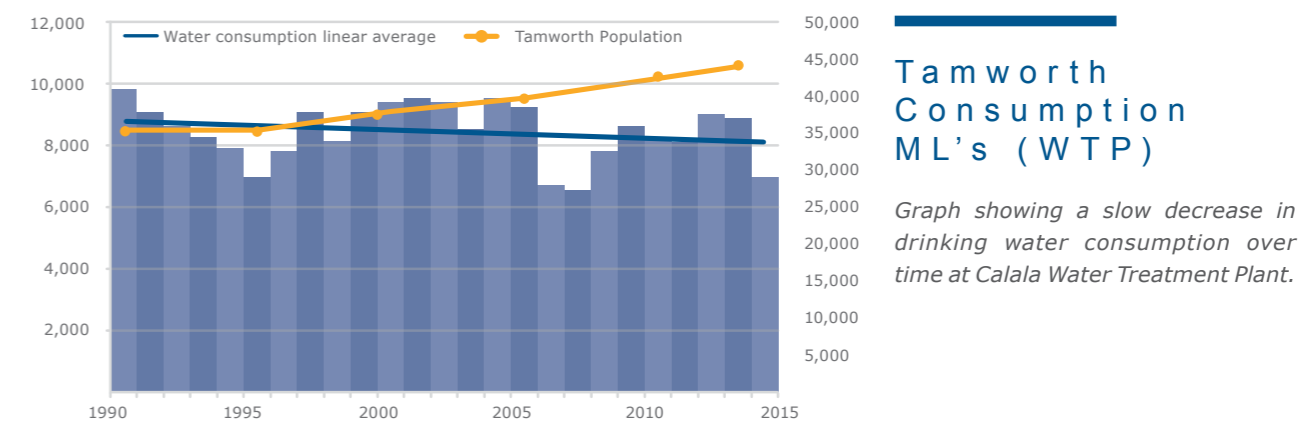
Turf limitation codes stipulate that no new turf is allowed in front yards, and that fifty percent of side and rear yards or 100 square feet, whichever is greater, may be grass.

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.

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.



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

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, the Drought Management Plan is followed to ensure measures are in place to minimise the use of water and safeguard the water supply into the future.

WATER MANAGEMENT

THE BASICS



Photo credit: Chris Plevey, Manilla Weir, Manilla NSW

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.

The Drought Management Plan (2015) was adopted after extensive public consultation and contains a series of triggers for when each water supply is restricted.

When a water supply drops to a certain level, the next level of water restrictions is introduced.

This trigger system is followed for each supply every single time.

Once the water supply has dropped to the next level, water restrictions will be advertised and will begin on the Saturday following the trigger being reached.

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

Residents across the Tamworth Region do an outstanding job when it comes to observing water restrictions and we need to continue to focus on using sustainable water practices in our Region.

THE TYPICAL LOCAL

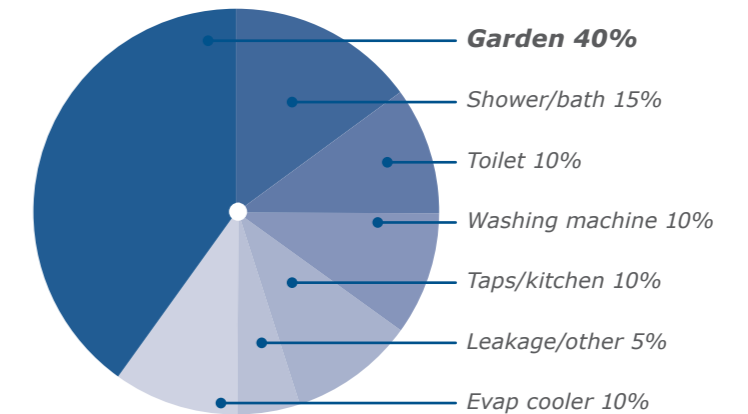
TYPICAL RESIDENTIAL WATER USAGE

This chart shows how water usage 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 water-sustainable 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.

Water usage breakdown



MYTHS

ABOUT CHAFFEY DAM



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

Tamworth City is one of many customers accessing water from Chaffey Dam when that water is available.

Other WaterNSW customers, mostly farm irrigators in the Peel Valley, can also access water from Chaffey Dam.

This is important when considering how high water restrictions trigger levels should be set for Tamworth based on the water level in Chaffey Dam.

Setting restrictions at higher levels won't necessarily save water for Tamworth because the other customers have access to this water, and whilst Tamworth is supplied a certain volume of water in the dam, the remaining water can be sold to other customers.

There are 192 licences with a 48,292 megalitre entitlement along 590km of the Peel River, drawing on the 100,000 megalitre Chaffey Dam, including:

- General security entitlements - 30,468 megalitres
- High security/industry entitlements - 973 megalitres
- Stock and domestic requirements - 177 megalitres
- Town water supplies - 16,400 megalitres (Tamworth)



YOUR LAWN HAS
GREAT TASTE

**Just remember it's
drinking quality
water you're using
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 Australian 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 should be considered precious and used accordingly.

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 into the drinking quality supply.

Drinking quality water takes time, labour and expense to produce, and as such, charges need to be passed on to 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

ALTERNATIVE GROUNDCOVERS FOR YOUR GARDEN

Space and planning

Alternative ground covers:

Pavers

Mulched natives

Packed earth

*Concrete products and
pebblecrete*

*Decorative gravel and
rockeries*

Artificial grass

Irrigation systems

Shade

Space & planning

Planning and design are essential elements of any good 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.

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



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 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.

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



ANIMALS APLENTY

Native gardens are habitats for local species. Native plants and gardens attract local species of fauna, particularly 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 havens of habitat 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 Cunninghiana (*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 Violacae (*Native Sarsaparilla*) 1-2m

Lomandra 'Katrinus' 1m

Lomandra 'Tanika' 500mm

Eucalyptus species 2m- 20m

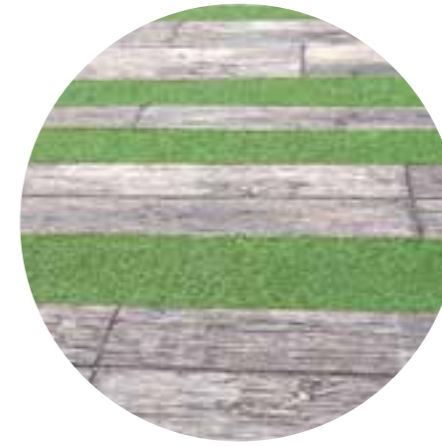


Artificial grass

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

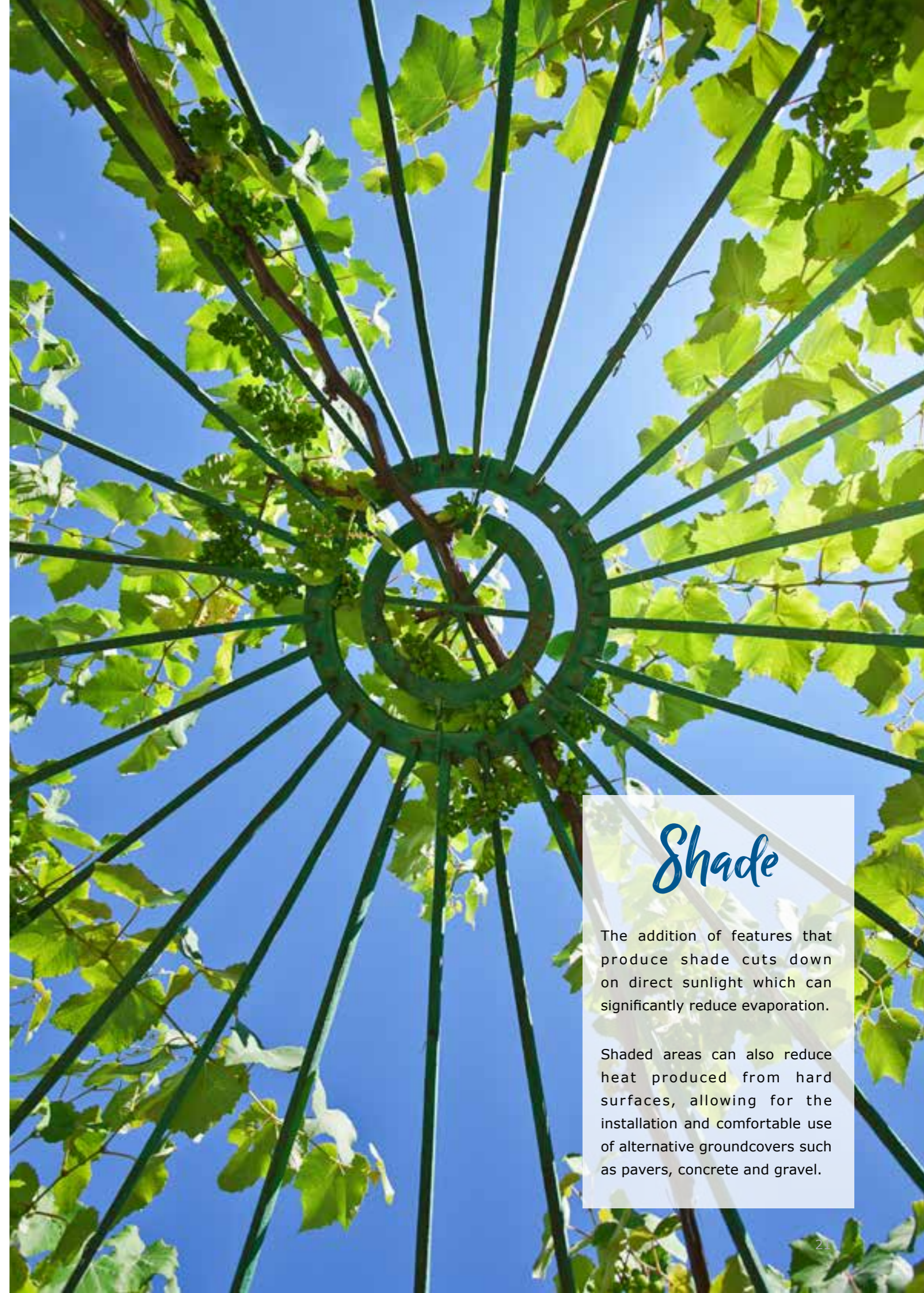
Achieve total water efficiency for your waterwise garden.

Drip irrigation systems and timers are an excellent way to achieve total water efficiency for your waterwise garden's requirements.

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

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 watering systems are turned on and forgotten.



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.



Photo credit: Northern Daily Leader - Peter Hardin

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 close 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 in 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 of 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
Corymbia 'Summer Red'	Dwarf Red Flowering Gum (grafted)
Dianella 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 Boobiolla
Nandina Domestica 'Moon Bay'	Dwarf Sacred Bamboo (<i>not actually a Bamboo</i>)
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

REAP THE BENEFITS

PRODUCTS AND FINANCIAL ASSISTANCE
COUNCIL CAN OFFER YOU



REBATES FOR WATERWISE PRODUCTS

Through its Residential Water Saver Rebate Scheme, Council offers financial assistance to residents who install waterwise products in and around their home.

This forms part of a program to make Tamworth 'The Waterwise Region'.

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

The rebate scheme will continue until:
28 February 2020

Council will pay up to 50% of the purchase/ installation cost or a maximum of the following amounts on these products:

Product	Price
3-star showerhead	\$20
3-star dual flush toilet	\$150
Swimming pool cover	\$100
2-5 kilolitre rainwater tank	\$250
5 kilolitre or above rainwater tank	\$500

COUNCIL PROVIDES INFORMATION TO HELP YOU ACHIEVE WATER EFFICIENCY



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

Council, as part of the Namoi Water Alliance, has access to tap into a range of water sustainability products, resources and services from Smart WaterMark to share with residents.

Resources available include water saving tips for all areas of the home and garden as well as engaging activities to calculate your home water use, choose the right plants for your garden and discover how much energy and water your washing machine uses.

There is also a range of information in the form of webpages, factsheets and case studies available to help businesses save water.

You can access this information by visiting:

www.tamworth.nsw.gov.au/Water-Saving-Tips



Let's
Thrive!

CONTACT US

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