



BLEEDING HEART (*Homalanthus populifolius*)

## JAMES' SPECIES SELECTION

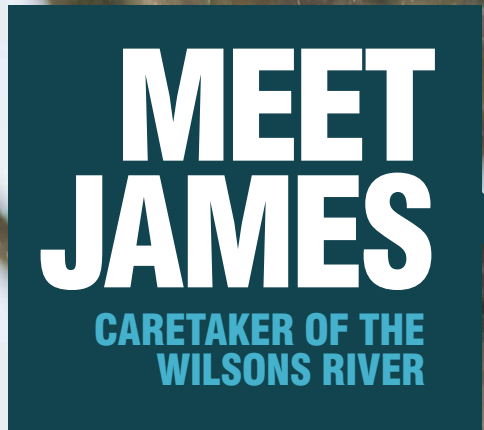
- Blackwood (*Acacia melanoxylon*)
- Blue Quandong (*Elaeocarpus grandis*)
- Brown Kurrajong (*Commersonia bartramia*)
- Brush Box (*Lophostemon confertus*)
- Brush Cherry (*Syzygium australe*)
- Celerywood (*Polyscias elegans*)
- Cheese Tree (*Glochidion ferdinandii*)
- Common Acronychia (*Acronychia littoralis*)
- Creek Sandpaper Fig (*Ficus Coronata*)
- Cudgerie (*Flindersia schottiana*)
- Deciduous Fig (*Ficus Superba*)
- Firewheel Tree (*Stenocarpus sinuatus*)
- Guioa (*Guioa semiglauc*)
- Hard Quandong (*Elaeocarpus obovatus*)
- Hollywood (*Pittosporum rhombifolium*)
- Hoop Pine (*Araucaria cunninghamii*)
- Moreton Bay Fig (*Ficus watkinsiana*)
- Native Frangipani (*Hymenosporum flavum*)
- Pink Ash (*Alphitonia petriei*)
- Red Ash (*Alphitonia excelsa*)
- Red Cedar (*Toona australis*)
- Silky Oak (*Grevillea robusta*)
- Small leafed Fig (*Ficus oblique*)
- Small leafed Lilly Pilly (*Syzygium luehmannii*)
- Water Gum (*Glochidion ferdinandii*)
- White Cedar (*Melia azedarach* var. *australasica*)

These articles were prepared by Shannon Greenfields for Rous County Council in liaison with participating landholders.

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Photography: Trevor Worden.  
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GROUND COVER SUPPORTS STREAM BANK STABILITY



RIPARIAN VEGETATION ACTS AS A BUFFER BETWEEN THE FARM AND THE WILSONS RIVER

Eastern Freshwater Cod, Australian Bass, Platypus and Long Necked Turtles live in the waterhole at the bottom of a stunning property shared with James, his family and their horses.

## DRINKING WATER CATCHMENT

James and his family's 58 hectare property is at Federal in Northern NSW and backs directly onto the Wilsons River, forming part of the drinking water catchment.

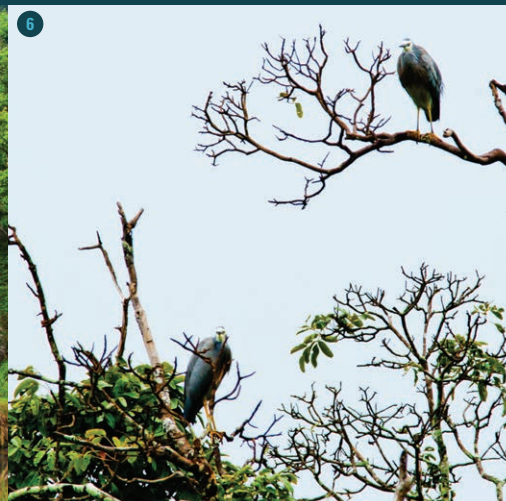
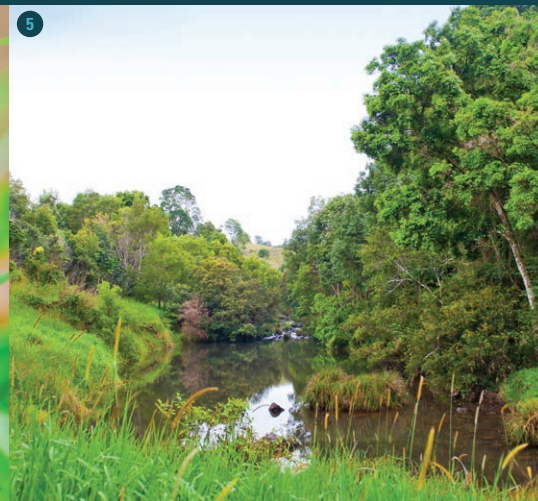
Water downstream from Federal is extracted from the Wilsons River at Howards Grass (near Lismore) and pumped to the Nightcap Water Treatment Plant for filtration and disinfection before it is suitable for drinking and distributed across the region.

Land use within the catchment is predominantly agricultural, potentially influencing water quality by introducing pathogens, nutrients, sediment and chemicals into the waterways. The quality of the water in our creeks and rivers determines how much treatment is needed before the water is safe to drink.





1 & 2. TREE GUARDS PROTECT SAPLINGS FROM WALLABY DAMAGE 3. OFF-STREAM WATERING POINT FOR LIVESTOCK 4. LOMANDRA (*Lomandra hysterix*) 5. THE WATERHOLE 6. BREEDING PAIR OF WHITE-FACED HERON



James believes it's his responsibility as a landholder to look after his livestock, enhance biodiversity and protect water quality. He reckons the water in the river flowing past his place today may well be drunk by someone living in Ballina tomorrow!

Back in 2006, James decided he wanted to keep his stock out of the river, so he created a rich riparian zone for wildlife and to protect water quality. He joined forces with his two neighbours and together they were successful in receiving an Australian Government Envirofund grant to protect the waterway.

## LIVESTOCK EXCLUSION

Uncontrolled cattle access to stream banks affects river health and drinking water quality by introducing pathogens from stock faeces and carcasses, nutrients from stock faeces and urine, and sediments from erosion and stream-bank disturbance.

This causes increased risk of disease and toxic algal blooms, harms aquatic life, clogs streams and burdens the drinking water treatment process.

James's first step to protect the waterway from livestock was to fence the entire length of the river frontage. Water troughs were supplied and a dam was built to provide off-stream watering points for his stock.

James says providing his stock with an alternative water source and preventing access to the river has been beneficial. There has been zero stock loss in times of flood, it's created a fodder reserve that can be utilised in times of drought and his stock are more healthy because they aren't defecating in the water they drink!

## RAINFOREST RESTORATION

The second step was to plant 1500 rainforest trees along the river, creating a rich riparian zone. The riparian zone not only provides a haven for wildlife but has created a buffer between his farm activities and the river.

James admits that the rainforest regeneration hasn't been without setbacks. He has had to deal with his fair share of pests, weeds and floods.

In the early stages, some of his saplings were destroyed by wallabies. Additional funding was provided by the NSW Fisheries to protect a breeding pair of Eastern Freshwater Cod discovered in the waterhole. This enabled James to purchase tree guarding and replace over three hundred damaged trees. This time he carefully selected species not previously favoured by his wallabies.

All of the Camphor Laurel trees were also removed. The purpose of this was to remove the seed source and prevent resident birds from dropping the seeds in the riparian zone.

Crash grazing has helped to keep James's riparian zone clear of long grass and given the saplings a chance to establish. This, combined with 'slash and burn' weed control techniques, has enabled his trees to establish themselves.

Now the riparian zone is close to being a self-regulating ecosystem. Standing by the riverbank the canopy above is almost grown over and there is an understory of native grasses and groundcovers.

## OUTCOME

It's a haven for nature and people. When James and his family have visitors come and stay, they all camp in the shade by the riverbank and enjoy the abundant wildlife as the river flows quietly by.

The grants James received to undertake the work certainly got the ball rolling, but it has been a labour of love and the in-kind contribution from James and his family that has been the significant factor. To achieve what James has created, takes careful planning, time, money and effort.

James's hard work and dedication to the environment has helped his livestock, protected the health of our waterways and drinking water supply, as well as created a haven for wildlife and people.



WALLABY DAMAGE TO YOUNG SAPLING