VICTORIAN
LANDCARE
& CATCHMENT MANAGEMENT
Summer 2018 Issue 71

MANAGING WATER FEATURE

Frogs indicate healthy waterways

Riparian farm forestry

Fly fishers help revegetate Little River

Victorian Landcare Program
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Victorian Landcare and Catchment Management

SUMMER 2018 Issue 71

Pink Lake, an ephemeral wetland and important brolga habitat on Glenn and Stephanie Rogers' property at Pura Pura.

There are many practical ways to help preserve the environment of vertebrates like the Southern brown tree frog.

A giant Gippsland earthworm uncovered during planting in 2011.

Contents

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Cover photograph
Growling grass frog by Melbourne Water.

From the Minister

There is no doubt water is fundamental to the health and prosperity of our communities and essential to our lives.

As we look towards a future of increasing water scarcity due to growing populations, climate change, and new and emerging issues, our challenge is to do more with less water.

The way we manage water to protect the health of our waterways and catchments is also crucial.

In this issue agroforestry expert Rowan Reid shares his experiences of planting, growing and harvesting a multipurpose riparian farm forest on his property at Bambra in the Otway Ranges.

Rowan believes that a balance can be found between conservation plantings using indigenous species and production forestry that has a positive impact on riparian biodiversity and water quality.

Read about how the people of Birchip are reaping the benefits of increased biodiversity at Tchum Lake after the Mallee CMA received environmental water for selected wetlands from the Victorian Environmental Water Holder.

The newly watered lakes have formed a shallow wetland, attracting wading birds, frogs and turtles, as well as drawing visitors to Birchip from near and far.

We also hear from Friends of Land and Water Landcare, a group established by residents of the Warragul Lifestyle Village, with members' ages ranging from 65 to 86 years.

The group cares for the creek that flows through the grounds, and has completed a revegetation project along one of the village boundaries. Their close encounter with the giant Gippsland earthworm is an interesting read.

This issue also includes stories on how biochar can improve the water-holding function of soil, a guide to identifying frogs, and a report on the North Central Regional Landcare Forum.

And congratulations to the 59 Landcare, and Friends groups and networks who secured a total of $495,586 in Community Skills Development Grants. The recipients will use their grants to undertake a wide range of learning, development and training opportunities to help build their capacity and skills.

Thank you to everyone doing extraordinary work to secure our water resources, and enhancing Victoria's liveability for many generations to come.

Best wishes for 2018.

Hon. Lily D'Ambrosio MP
Minister for Energy, Environment and Climate Change

Minister for Suburban Development

Biodiversity On-ground Action – 2018 Community & Volunteer Action Grants opening soon

Applications will open soon for grants to help Victorian communities protect biodiversity and restore and care for local species and habitat.

The Victorian Government will provide additional investment through the Biodiversity On-ground Action – 2018 Community & Volunteer Action Grants to enable the delivery of on-ground conservation projects on public and private land.

Grants will be available to support volunteer community-based environment groups and networks in their efforts to protect, enhance, and restore their local biodiversity and threatened species.

The opening of these grants will be communicated to groups and networks by Landcare support staff across Victoria.

For more information visit https://www.environment.vic.gov.au/community-action

> *As we look towards a future of increasing water scarcity due to growing populations, climate change, and new and emerging issues, our challenge is to do more with less water.*

Water workshops help farmers plan and manage future drought

By Kerri Robson

Gecko CLaN is a Landcare Network that supports 18 separate groups around the townships of Benalla and Euroa in north east Victoria. The network works closely with Agriculture Victoria and the Goulburn Broken CMA.

Water quality can be improved on farms by fencing out dams and using new solar pump technology and remote water tank monitoring.

Triggered by extended periods of drought and regional fires in 2014 the network developed a project to assist its landholders to better understand the water requirements on their properties. Stock requirements, firefighting and domestic water use are all considered along with water access, delivery and storage.

The project uses case studies and gives landholders an opportunity to discuss their individual property water requirements at workshops. Each workshop covers a water needs assessment, consideration of evaporation rates, identifying options for meeting water requirements (flow rates, pumps, tanks and troughs), livestock management options and contingency plans, and a demonstration of measuring dam depth and calculating storage potential.

Follow up sessions are held with participants on best practice dam design and construction, where to site farm dams, use of new technologies to monitor farm water supplies, how to minimise losses from dams and planning stock water requirements.

Charlie and Marie Crocker who farm at Violet Town and Strathbogie have begun trialling a remote water level monitoring device on their properties as part of the project.

The family lives on the Violet Town property and the use of this technology gives them peace of mind knowing that their remote stock have access to water and the delivery system is working well.

The Crockers use a solar pump to fill tanks on the Strathbogie property that are connected to troughs that provide water for sheep. Despite the solar pump, there was still the need to regularly monitor the water level in the tank. In the past this meant regular trips from Charlie to check everything was working.

"If a pump or fitting failed and livestock became short on water, I might not know about the situation straight away," Charlie said.

The remote water sensor in the tanks is now linked to Charlie's smart phone so he can check it constantly. This has helped save time and money, particularly with the Strathbogie farm being some 30 minutes drive away.

The Gecko CLaN has also produced a YouTube clip with local farmer John Kelly talking about his journey going into a drought situation and the network website has many useful water management resources for landholders.

Kerri Robson's position as Landcare Facilitator for the Gecko CLaN is funded through the Victorian Landcare Facilitator Program.

For further information go to www.geckoclan.com.au or email Kerri Robson on landcare2@iinet.net.au

Brad Costin from Agriculture Victoria discussed dam designs and how to calculate the amount of water in storage at a field day at Earlston.

Southern brolgas in the Nerrin wetlands south of Lake Boga.

Landholders protect critical brolga habitat at Pura Pura

By Angela Snowdon

Glenn and Stephanie Rogers purchased their 1100-hectare mixed grazing and cropping property at Pura Pura near Lake Bolac in 2016. The property is no ordinary piece of farming land, with Pink Lake, Salt Lake and part of Blue Lake situated in the centre, covering about 200 hectares.

The lakes are part of the Nerrin wetlands, an extensive series of ephemeral wetlands and shallow lakes scattered across the volcanic plains south of Lake Bolac. The area is recognised for the habitat it provides for many wading and water birds, as well as other important species including the growling grass frog, striped legless lizard and Corangamite water skink.

Glenn and Stephanie's property is a significant flocking site for southern brolgas, with more than 70 brolgas gathering there each year prior to nesting. Once widespread across southern Australia, it is believed only 650 southern brolgas remain. Their decline is due to loss of habitat and foxes taking eggs and chicks.

Brolgas require a variety of habitats ranging from swamps to grasslands, in order to roost, feed, breed and rest. Much of their preferred habitat has been lost due to changes in land use and drainage of wetlands for agriculture. Brolgas are also affected by developments like the construction of wind farms that can disrupt their flight paths and nesting areas.

The Rogers' aim is to have a productive mixed cropping and grazing property where agriculture and biodiversity coexist. Protecting brolga habitat is important, but with a young family and a farm to pay off, there are many priorities to juggle.

When Glenn and Stephanie purchased their property they faced a number of challenges. Arable areas around the lakes had been sown with tall wheat grass, a highly invasive species that was spreading, as were paddy melons and other weeds. Stock was at risk of getting stuck in the unfenced lakes, trampling vegetation and causing erosion and bank destabilisation.

Local Landcare Facilitator Rod Eldridge has provided advice and support to assist Glenn and Stephanie. In June 2016, Rod and the Lismore Land Protection Group secured a Landcare Australia Special Projects Grant to help fence sections of the lakes. These grants were made possible through the contributions of corporate partners participating in Landcare Australia's Workplace Giving program.

Glenn Rogers (left) and Rod Eldridge on the Rogers' property with Salt Lake in the background.

The fencing will prevent stock access to the lakes and help Glenn and Stephanie to manage the tall wheat grass, which they intend to replace over time with a more suitable pasture.

Fencing off the lakes in their entirety would benefit the farm and biodiversity, but cost and rough terrain is a major barrier to achieving this quickly. Fox control is also an ongoing activity to protect both lambs and wildlife. Over time Glenn hopes to achieve the best results for his farming operation and for the brolga.

Angela Snowdon is a Landcare Liaison Coordinator at Landcare Australia in Melbourne. For further information email angela.snowdon@landcareaustralia.com.au

Recycled water project greens Carranballac College

By John Forrester

The two prep to year nine campuses of Carranballac College were built in the rapidly growing suburb of Point Cook, west of Melbourne, in very dry conditions during the early 2000s – the last few years of the millennium drought.

Alex Turner and Jasmine Thomas making puppets from recycled trash.

Grassed playing spaces were not allowed to be watered under water restrictions at the time, and it was impossible to provide a green grass surface that would allow the students much scope for learning, play and enjoyment.

In 2008 the then College Director Peter Kearney gave me the task of making Carranballac a more sustainable organisation, with a major focus on greening the school playground surfaces.

In 2010, with assistance from a Victorian Government Vision for Werribee Plains Grant, we investigated if the local wetlands could supply the college with water. Our partner in the project, City West Water, advised us that the local wetlands could not supply the amount of water required in a normal summer let alone in ongoing dry times.

City West Water advised that recycled water would be the best solution. Recycled water in the Wyndham area is provided from Melbourne Water's Western Treatment Plant. Receiving more than 50 per cent of Melbourne's sewage, the plant recycles that sewage and re-distributes recycled water for farming, community and environmental purposes. The plant is famous for its conservation ponds and the habitat they provide for migratory birds from the northern hemisphere.

The supply pipes at the time could bring the recycled water to our Jamieson Way campus. A State Government Living Victoria Grant enabled the pipeline to be extended to the Boardwalk campus in late 2015, and also to supply recycled water to an adjacent City of Wyndham reserve.

During the long process of investigation, securing funds and construction, a number of sustainable and environmental initiatives were introduced to the college. A student led Environmental Leaders team was formed, both campuses participated in the Schools Water Efficiency Program and recycling of paper, card, soft plastics, rigid plastics, batteries, compact discs, printer cartridges and containers all began.

Vegetable gardens, chicken programs, guinea pigs in classrooms programs, nude food lunches, and walk to school programs

> *Vegetable gardens, chicken programs, guinea pigs in classrooms programs, nude food lunches, and walk to school programs have all been introduced.*

Olivia Margeta (left) and Radhe Parasram from Carranballac College presenting their science workshop on measuring pH in the soil at a Kids Teaching Kids Conference in Western Australia.

Carranballac College students L-R: Lucy Canny, Julie Trinh, Dillen Mitchell-Kitton, Ali Khan and Nahum Felate playing sport on the new green areas.

have all been introduced. Energy efficiency initiatives and practices were embraced along with tree planting at our local wetlands and participation in National Tree Day events and Clean up Australia Day.

Kids Teaching Kids

With advice from experienced Waterwatch practitioners from the Werribee River Association and Melbourne Water, students undertook water quality testing of the wetlands, did local wetland bird observations, visited the Western Treatment Plant and studied migratory bird species and their flight pathways along the East Asian flyway. The students also began their own long journey through the Kids Teaching Kids (KTK) program.

The KTK program has taken place at Carranballac College every September since 2010. All classes take part in at least one KTK environmental science activity, with students doing all the teaching, including science workshops, drama, song, theatre, debate and a range of other activities.

Each year during KTK week, the college hosts the Western Metropolitan KTK conference and invites other schools to take part, sending their own KTK teams or classes of students to the college.

The college selects a team of student environmental leaders to take part in the Melbourne Water KTK conference over two days, now being held at Melbourne University and Collingwood Children's Farm.

Student Olivia Margeta was involved in the KTK program for three years and attended the KTK Conference in Mandurah in 2014. Olivia said the program helped her to build knowledge and understanding of how to help or prevent environmental problems.

"I learnt so many interesting facts throughout as well, that was one of the many perks of being part of KTK. It was more intriguing to watch, learn and listen from other kids instead of adults because if we can learn so many interesting things at our age so should you!" Olivia said.

In 2014 KTK student studies of the sharp-tailed sandpiper, a migratory bird that can be seen at the Western Treatment Plant, was responsible for an exchange visit between Carranballac College and Jamsin College in Seoul, South Korea.

The water project has given life to many initiatives at the college. A project that started with recycled water has had wide reaching effects for staff, student and community health and morale, and for the local environment.

Parent and college council member Rebecca Fountain said that it was exciting to see the school using recycled water for irrigation purposes.

"The use of recycled water provides drought proof recreation facilities for the students all year round whilst saving precious drinking water and as an added bonus improves the amenity of the school. I particularly love that the students learn about the importance and value of water and that provides great economic benefits for the school as well as environmental benefits," Rebecca said.

John Forrester is a staff member at Carranballac College.
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> *The students also began their own long journey through the Kids Teaching Kids (KTK) program.*

Water birds have flocked to the Tchum Lake wetland near Birchip after it received an environmental water allocation in 2017.

Newly watered Tchum Lake brims with birdlife

By Kirsten Lloyd

On the back of a wet 2016, the Mallee CMA received environmental water for selected wetlands, made available by the Victorian Environmental Water Holder. One of the wetlands to benefit has been Tchum Lake, just outside the Mallee town of Birchip.

> *Shallow wetlands are an ideal place for wading birds. Shortly after water first entered Tchum Lake Reserve an increase in birds was noticed, along with the appearance of frogs and turtles.*

Shallow wetlands are an ideal place for wading birds. Shortly after water first entered Tchum Lake Reserve an increase in birds was noticed, along with the appearance of frogs and turtles. The transformed landscape, now alive with wildlife, is drawing visitors to Birchip from near and far.

According to Cam Flowers, Project Officer Land and Biodiversity for the Mallee CMA, local people have been taking extra care driving near the lakes as turtles have been crossing the road from Tchum Lake South to reach Tchum Lake Reserve.

"I'm a Birchip local and this is definitely not something you see often in this part of Victoria," Cam said.

While watering of Tchum Lake Reserve is relatively rare, only occurring after a wet year, the water delivery of 2017 has provided many benefits to the wetland.

"The water helps important plants like the black box trees and fringing lignum stay healthy and it's making a great feeding and breeding habitat for lots of birds and animals," Cam said.

The water has encouraged greater diversity within the wetland and it also supports the ephemeral water regime, where the Reserve experiences wetting and drying cycles, a natural process for wetlands in the semi-arid Mallee.

Droughts and human intervention have disrupted the wetting and drying cycle, so wetlands like Tchum Lake Reserve have had far fewer wet years. This impacts on the health and diversity of species that would have traditionally populated the wetland.

"Mallee wetlands were all about boom and bust. In wet years they'd fill and then slowly dry out during periods of low rainfall. Environmental watering is designed to mimic the boom, so what we saw in 2017 won't happen every year," Cam said.

The people of Birchip have embraced the rarity of the full lakes. Walking tracks have been installed to link the town to the lake and information signs and scenic drives are planned.

For further information contact Kirsten Lloyd at the Mallee CMA by email at Kirsten.Lloyd@malleecma.com.au

Biochar may have benefits for soil and water

By Dion Borg

Biochar is a carbon-rich solid manufactured by heating bio mass at a high temperature in the absence of oxygen.

Doug Phillips (far right), a member of the Tarragal Landcare Group and biochar manufacturer, hosts visitors at the group's biochar site.

This process turns bio mass into a porous solid believed to benefit soil by reducing organic and inorganic environmental contaminants, reducing greenhouse gas emissions from soil, aiding carbon sequestration, managing and increasing soil nutrient supply and soil rejuvenation and remediation.

Biochar also has implications for managing water as it can improve the water-holding function of soil and protect water quality.

Historical evidence has been discovered within the Amazon forests of South America that indicates the early inhabitants of the region used biochar as a soil conditioner to improve the region's poor soil structure. Using biochar allowed the inhabitants to grow substantial crops and successfully colonise the area over the longer term.

An important quality of good soil is its ability to retain water. Biochar research conducted in Japan has shown that when biochar is added to the soil, water retention increased by around five per cent compared to control soil plots.

Tarragal Landcare Group conducts tests

The Tarragal Landcare Group based at Portland in southwest Victoria were interested in finding out if biochar has an effect on soil structure when incorporated as a soil conditioner. With much of the region experiencing longer and drier seasons over the last few years, the group was keen to know if biochar could significantly retain soil moisture over a longer period.

After discussions with the Glenelg Hopkins Regional Landcare Facilitator and support from the Australian Government's National Landcare Program, a demonstration site was established in June 2016. The group planned to test some of the biochar theories concentrating on the benefits of improving soil quality through laboratory analysis and improvements in above-ground crop biomass.

Three treatment areas were established within the demonstration site. Each site had different amounts of biochar applied compared to the control area. Early indications are that the treatment areas with higher biochar applications have better plant development when compared to the control.

Faba bean plants harvested from the site during late 2016 showed root growth that was significantly larger and better developed under the biochar treatments versus the control.

Soil test results taken 12 months apart have indicated a significant reduction in aluminium saturation levels when comparing the biochar treatments (4.9 per cent) to the control (9.1 per cent). High aluminium saturation soil levels can be toxic to plants by inhibiting root growth and general plant development. Growing plants in a high aluminium saturation level environment usually results in plant death within 12 months. In severely affected areas plants will fail to germinate

The increased water-holding capacity of the soil has not been tested as yet due to the wetter than average summers in the area. The trial continued into 2017 with red wheat being planted within the demonstration sites and the addition of a selected fertiliser incorporated into the trial design.

The group aims to keep the demonstration site going over the next five years with field days planned to discuss progress and results.

Dion Borg is Glenelg Hopkins CMA's Regional Landcare Facilitator. For further information email Dion at d.borg@ghcma.vic.gov.au

Biochar being incorporated into the demonstration site plots at Portland in June 2016.

Planting, growing and harvesting a riparian farm forest

By Rowan Reid

At the start of our farm tours I stand on a tree stump just a few metres from the creek that divides our property. The eucalypt was more than 80 centimetres in diameter when I felled it and milled out more than a cubic metre of knot-free, furniture-grade timber from the pruned butt log. I planted the tree, a native, though not indigenous to the site, in 1987, when I was 25 years old.

Back then, the creek was an eroded drain with cattle climbing up and down the banks. We fenced out the creek and planted a mix of native trees and shrubs, just like a conventional Landcare planting. The difference was that I always intended to harvest the trees for timber. Just a few years after planting I began thinning to give the best trees more growing space and then pruned them up to more than six metres to improve their wood quality. We are now selectively harvesting sawlogs and milling them on our portable bandsaw and drying the timber in a solar kiln.

Over the next decade, I plan to remove all the eucalypts leaving the understorey of high value native cabinet timbers (not the understorey shrubs) to grow into a second-generation crop. These include our local blackwood and satinwood, but also more climate-change adapted species from New South Wales including silky oak, sheoak and Australian red cedar. The eucalypts grow too tall, compete with the adjacent pastures, and are increasing the fire risk.

My riparian forest, like any native forest, is dynamic. Rather than just let nature take its course I am guiding its growth so that it transitions, more quickly than it might otherwise, from a eucalypt-dominated sclerophyll forest into a dark, water-cooling, rainforest of specialty timbers.

Waterways managed for conservation and profit

The reaction to this project has been fascinating. Many commercial foresters say my example is too complicated, too expensive and lacking the efficiencies of scale and uniformity that they strive for in their own plantation models. On the other hand, many conservationists view any form of timber harvesting from Landcare plantings as a negative. But for the farmers who visit, it is just common sense to manage waterways on farms for both conservation and profit.

What single-interest observers don't appreciate is that a forest that is neither the best for production or conservation might actually be better for both. Between the two extremes – a conservation planting of indigenous plants and an intensive monoculture plantation – there are myriad options that provide a mix of conservation and production. While we don't know exactly how these multipurpose options will play out on every farm, there is much that is intuitive.

Over the next decade, I plan to remove all the eucalypts leaving the understorey of high value native cabinet timbers (not the understorey shrubs) to grow into a second-generation crop.

The eroded creek in 1987.

The multipurpose creek planting in 2011. The harvested eucalypt is to the right of the gate.

> *My riparian forest, like any native forest, is dynamic. Rather than just let nature take its course I am guiding its growth so that it transitions, more quickly than it might otherwise, from a eucalypt-dominated sclerophyll forest into a dark, water-cooling, rainforest of specialty timbers.*

For example, close to the conservation-only end of the continuum there might be the opportunity to harvest some firewood without having any negative impact on biodiversity or water quality. In our case, although I may have compromised the conservation ideals by planting non-indigenous native trees, I believe that our active management is enhancing biodiversity and water quality over and above what might be achieve by a conventional Landcare planting.

I invite my visitors to look for signs of the ecological processes playing out in our managed riparian forest. The trees I killed by ringbarking are left standing to enhance biodiversity. Those I felled are providing large wood debris on the ground and in the creek itself. Visitors can see how the logs are pushed up into heaps during floods creating a series of natural beaver dams that slow the water flow. These provide deep pools, organic matter and wildlife refuges – aquatic habitat elements that have been largely missing since our farm creeks were cleared, de-snagged and turned into open drains by the previous owners of the property.

Conservation benefits amplified

Looking only at this one site misses the real potential of multipurpose riparian forestry on farms. In our region alone, the prospect of a commercial return, however small, from trees planted primarily for conservation has encouraged many farmers to fence out their creeks wider than they might otherwise and plant trees, thereby amplifying the conservation benefits across the landscape.

These self-funded, private plantings do not rely on government grants. Although not perfect for conservation they are playing a significant role in trapping sediments and nutrients that would otherwise enter the streams, locking up carbon, and providing corridors for the movement of native animal and plant species, and their genes.

Rather than being a conservation threat, I see the active management and harvesting of trees from multipurpose farm plantings as an exciting new chapter in the development of Landcare. The greatest threat to realising these opportunities is the inflexibility of government and interest groups who – through their planning, practice codes, grant conditions or advice – perpetuate the misconception that forests should only be grown for conservation or profit, and never both.

Rowan Reid is a forest scientist and landholder with a 42-hectare property at Bambra, who helped develop the Otway Agroforestry Network. His latest book is 'Heartwood: The art and science of growing trees for conservation and profit'. For more information go to www.agroforestry.net.au

Rowan Reid with a 25-year-old eucalypt log on the bandsaw.

Healthy frogs mean healthy waterways

By James Frazer

Frogs are the most threatened class of vertebrates in the world. Over a third of frog species globally are threatened with extinction. Australia has lost at least four frog species since the late 1970s and many more are currently threatened with extinction.

The greater Melbourne region is home to 16 recorded frog species, of which three are currently listed as threatened. These are grim statistics, especially when frogs provide a number of important ecological functions.

Frogs are a key link supporting waterway food chains, as they are both predator and prey. Tadpoles browse on algae and transfer energy up the food chain as they, (and adult frogs), are preyed upon by predators such as waterbirds. Adult frogs are voracious predators of invertebrate populations, providing a free organic form of pest control.

Frogs also possess a complex set of chemical compounds in their bodies that have many novel scientific and medical applications from potential painkillers to antibiotics and gastric ulcer treatments. When we lose frog species, we lose the opportunity to discover and develop substances of benefit to the health needs of humankind.

Frog populations face many threats, including habitat loss and modification, disease, introduced species, drought and climate change. Fortunately, there are many practical actions we can take to help conserve frog populations.

Adult frogs are voracious predators of invertebrate populations, providing a free organic form of pest control.

Frogs as environmental indicators

Frogs have a water-dependent life cycle and sensitive skins (they can breathe and drink through their skin), so the state of frog populations can tell us a lot about the wider health of waterways. Trends in frog populations can provide an early warning indicator of stresses such as waterway pollution, drought and the condition of other elements of food chains.

Since 2001 Melbourne Water has run a Frog Census, working with the community to monitor frog populations by recording frog calls.

In September 2016, Melbourne Water launched a Frog Census app for mobile phones, the outcome of a collaborative design process with Frog Census volunteers. The app has greatly expanded participation in the census. The Frog Census app is free to download, easy to use and contains a handy map and field guide function with species descriptions and frog call audio.

The Frog Census app is available from Apple and Android app stores and from our website (see below).

Habitat creation

Habitat loss is a major threat to frogs across greater Melbourne. You can take action by creating frog-friendly habitat in your own backyard, property, farm, school or community garden. Habitat restoration increases the capacity of landscapes to sustain frog populations and helps link up disconnected frog communities.

Frogs require both aquatic breeding habitat and terrestrial foraging habitat and needs vary by species so it is important to research what species occur near you. The Frog Census app has a useful map function that allows you to look up what species have been reported near you. Melbourne Water has also published a brochure with guidelines to assist you on creating frog ponds and gardens which is available on our website (see below).

Eastern common froglet (Crinia signifera).

Eastern banjo frog (Limnodynastes dumerilii).

Spotted marsh frog (Limnodynastes tasmaniensis).

One of the leading threats to amphibians globally is the spread of chytrid fungus. If you are recording frogs at more than one site it is important not to spread the fungus to different locations. Where possible stick to paths and avoid walking through mud if possible. Use a stiff brush to remove any mud that may be stuck to shoes or clothing. Methylated spirits or bleach can be used to disinfect shoes or contaminated clothing (and then washed off). Vehicles should be washed down if there is mud on the tyres.

It is also important not to handle frogs. Frogs are protected wildlife and disturbing them may stress individuals as well as increase the risk of spreading disease between species.

Southern brown tree frog (Litoria ewingii).

Some common frog species in Victoria

Eastern common froglet
(Crinia signifera)

18–28 millimetres.

Highly variable colouration.

Habitat: swamps, dams, seasonally inundated areas.

Males call year-round, with breeding peaks in spring and autumn.

Eggs laid singly, or in small groups on substrate.

Eastern banjo frog
(Limnodynastes dumerilii)

50–80 millimetres.

Large and stout frog, variable colouration, with prominent oval glands on legs (tibia) and elongate gland corner of mouth to shoulder.

Habitat: generally breeds in large waterbodies but disperses far from water. Burrows are often found in garden beds.

Males call spring/summer, often in mass spawning events following rain.

Eggs laid in a foam raft.

Spotted marsh frog
(Limnodynastes tasmaniensis)

30–47 millimetres.

Prominent green blotchy pattern and often a yellow/orange dorsal stripe down back. Elongate gland corner of mouth to shoulder.

Habitat: widespread and adaptable species, seasonally inundated areas, swamps, dams.

Males can call year-round however calling peaks in spring and autumn.

Eggs laid in a foam raft.

Southern brown tree frog
(Litoria ewingii)

30–45 millimetres.

Light to dark brown on back, with back of thighs yellow to orange. Pale stripe below eye, running to corner of mouth. Dark line above running from snout through eye. Webbed toes with toepad disks slightly larger than toes. Agile climber.

Habitat: widespread, common species, adaptable breeder to garden ponds. Shelters in moist sites including pot plants and woodpiles.

Males can call year-round.

Eggs laid in jelly clumps attached to submerged stems.

For more information on the Melbourne Water Frog Census go to www.melbournewater.com.au/frogcensus Or contact the Waterwatch Coordinator, James Frazer, by email at frogs@melbournewater.com.au

Frog populations face many threats, including habitat loss and modification, disease, introduced species, drought and climate change. Fortunately, there are many practical actions we can take to help conserve frog populations.

Tarago catchment: a collaborative approach to sustainable land management

By Sean Dignum

The importance of rivers and wetlands in the natural water cycle is now well recognised. Most of our communities understand the role of rivers and wetlands in distributing water and nutrients and providing habitat and food for flora and fauna.

However, in the 1990s some rural property owners believed that rivers could take care of themselves and intervention by government authorities and conservationists was undesirable and unwarranted.

One of the Victorian waterways then increasingly under challenge was the Tarago River, which rises in the Tarago State Forest, approximately 80 kilometres east of Melbourne and flows through mainly rural land before it reaches the Tarago Reservoir at Neerim South. The Tarago Reservoir supplies drinking water for Western Port and the Mornington Peninsula.

The Tarago River is classified as environmental water, which means that it is a river that benefits the environment, because water is set aside and managed for plants and animals.

Because the river and reservoir are surrounded by dairy and beef farms, the biggest impact on water quality has been polluted run-off in the catchment from the adjoining farm properties, exacerbated by fouled creeks and degraded riparian environments.

Melbourne Water conducted weed control, willow control and tree planting throughout the catchment in the 1990s, but without any engagement from the community.

A Tarago Catchment Sustainable Farms Project field day held at Neerim in July 2015. Participating landholders discussed soil tests and the trialling of paddock compost and saw the beneficial impact of new plantings on eroded gullies.

A Tarago Catchment Sustainable Farms Project that provided fencing and revegetation in an eroded area above a paddock spring.

In 2002 Neerim District Landcare Group (NDLG) partnered with Melbourne Water to develop an integrated catchment management plan for the reservoir. The plan was put together in conjunction with Baw Baw Shire Council, the then Department of Natural Resources and Environment, Gippsland Water, the Victorian Farmers Federation, the Victorian Environment Protection Agency, and a representative group of catchment residents.

After the plan was agreed in 2003, NDLG Secretary Mike Haughton initiated the first round of funding applications for a three-year program, and the Tarago Catchment Sustainable Farms Project was born.

The aim of the project is for sustainable land management rather than improving water quality within the Tarago River or Tarago Reservoir. Improved water quality is a bioproduct and outcome of sustainable land management, along with enriched biodiversity, and less nutrient runoff.

The project has a number of uncommon features. It is essentially a local, community-run project with Melbourne Water happy to act as a silent partner. It relies on the use of local service providers and suppliers, which supports a strong local economy, and there is a lot of goodwill and significant in-kind support between all project partners.

The project has the freedom to trial experimental approaches to community engagement and capacity building, supported by funders and partners. There is also freedom to fund on-ground works that do not fit standard Melbourne Water Stream Frontage Management Program criteria. Variable fencing subsidies are available, along with minimum fencing offsets.

In the past 15 years the project has seen more than 60 kilometres of new stock-proof fencing built, approximately117 hectares of unproductive land revegetated, almost 18 hectares recovered from willow infestation and the planting of 227,000 native plants.

Sean Dignum is President of Neerim District Landcare Group. For further information email sean@dignum.com.au

Recycling wood for waterways

By Fiona Lloyd

Trees damaged by fire and storms are being recycled and reused as snags in creeks in the Strathbogie Ranges to provide valuable habitat for threatened native fish.

Recycled timber positioned in Seven Creek to encourage bed scour and create greater depth.

Snags in waterways are usually formed by trees falling or dropping limbs – one of the reasons why streamside vegetation is critical.

Due to reduced vegetation in areas, and in some cases past de-snagging practices, there is not always enough of this woody habitat entering creeks to sustain good native fish populations. The Goulburn Broken CMA is partnering with landholders, Native Fish Australia and community groups to carry out revegetation and re-snagging works in a number of creeks in the Strathbogie Ranges.

According to CMA works officer Collin Tate, revegetating stream banks provides bank stability, shade and food and will also supply a wood source to future streams.

"Without vegetation there is no natural means of replenishing the streams' resources," Collin said.

As it can take many years for trees planted as part of revegetation activities to mature, suitable wood needs to be sourced from other locations to be placed in stream and provide immediate habitat improvement. The more complex the wood (with many branches), the better the snag. Size and species are also considerations for use.

Fallen timber provided by the Shire of Strathbogie as the result of a windstorm is put to good use to re-snag local streams.

Sourcing the right type of wood for these works is critical. When Collin heard of a local council's efforts to clean up after a windstorm he quickly made contact.

"The Strathbogie Shire provided us with the fallen wood, which we have stockpiled in readiness for future habitat works. We similarly arranged to transport some of the wood that had been piled up in the aftermath of the Creightons Creek fire in 2014 and placed it into the Hughes Creek in early 2015," Collin said.

Earlier this year Collin sourced wood from VicRoads following a road-widening project. The wood was placed in creeks to create variation in stream flow and provide new habitat for aquatic wildlife, including macro-invertebrates, crustaceans and fish.

"In the case of the Seven and Hughes Creeks, which have high sediment loads, the wood has also been placed to encourage bed scour to move some of the deposited sand and reinstate stream depth.

"The reinstatement of deep pools and shelter are vital for threatened species like Macquarie perch and trout cod that are found in these creeks, particularly throughout periods of low flows when these fish and other aquatic life are confined to refuge pools. Seeing this wood put to another purpose is very satisfying," Collin said.

Fiona Lloyd is Communications Manager at the Goulburn Broken CMA. For further information email Fiona at fional@gbcma.vic.gov.au

The management of the water storages in the region has changed drastically following the conversion of open channels to pipeline distribution for stock and domestic water for Wimmera-Mallee communities.

A walk around Lake Battyo Cattyo looking for Aboriginal flints and ochre sites.

Landcare forum highlights management of north

Sharing the Landcare Story was the theme of the North Central Regional Landcare Forum, held in October 2017 at Stuart Mill near St Arnaud. It was the first event of the new Landcare Victoria Inc (LVI) organisation, and drew Landcarers from across the State. The program was a mix of talks, workshops, group reports and a bus tour exploring sites and activities across the region.

The local Landcare community led by Regional Landcare Coordinator Tess Grieves, and LVI, were involved in developing and organising the program. Kaye Rodden, the Deputy Chair (Advocacy and Partnerships) of LVI, explained how LVI came into being.

"In Victoria, Landcare was previously supported through the Victorian Farm, Tree and Landcare Association and the Victoria Landcare Council. These two organisations merged and partnered to create the new entity, Landcare Victoria Incorporated (LVI), which now assumes responsibility for the Landcare support services and advocacy provided by both previous organisations, and represents Landcare in Victoria to government, other organisations and the public. It is anticipated that this change will enable Landcare members in Victoria to develop clearer accountability and stronger representation within the national structure," Kaye said.

Terry Hubbard, Chair of LVI and then Chair of the national body, the National Landcare Network, welcomed the forum participants and Rebecca Phillips, a Dja Dja Wurrung woman who led a beautiful and moving Welcome to Country ceremony. She highlighted the shared values of Indigenous and non-Indigenous people who care for, protect and depend on the land for their livelihood and identity.

Penny Roberts then talked about the workings of her group, Newham and District Landcare Group, and its role in welcoming people to the district, forming new friendships and working together to plan, finance and carry out projects.

The next day an information session and workshop outlined the ideas and structure for the new LVI. A Members' Council with grassroots representatives has been proposed to develop ideas and policy, and identify issues of concern, for the LVI Committee of Management to consider.

The local Landcare community organised a terrific half-day bus trip around the region. The first stop was the historic Tottington Station, part of the original squatter run of the 1840s with its woolshed built of unsawn timber and no nails! The woolshed is the oldest still in use in Victoria. Owner Tom Small showed his obvious pride in its history and continued efficiency for comfortable sheep handling.

Tom and his family have been keen tree planters since they took over the property in the 1950s and have established extensive shelterbelts and corridors on the property. Shelterbelts play an integral part in Tom's

North Central Landcare Forum delegates are welcomed at Stuart Mill.

central water storages

By Wendy and Horrie Poussard

farm management, being used at times as lambing paddocks when weather conditions turn bad. Tom is keen to increase his twin lamb survival rate and finds that small flocks in these protected areas are effective – an environmental and economic win.

Change in management of water storages

The management of the water storages in the region has changed drastically following the conversion of open channels to pipeline distribution for stock and domestic water for Wimmera-Mallee communities. The pipeline has reduced the need for some water storages that have been important recreation areas and wildlife habitats for many generations.

The bus tour visited a number of lakes including Batyo Catyo and Taylors Lake to see and discuss the issues the pipeline has raised. Batyo Catyo has now been downgraded as a storage and recreation lake, which is a cause of concern for locals who have lost a local asset.

Fiona Burchell from the Avon Plains Banyena Landcare Group pointed out that increased pressures on other lakes in the area can create conflicts between pressure from recreational users and the protection of biodiversity.

The region's lakes have a significant Aboriginal history and many artefacts including scar trees from which bark was taken for various uses such as coolamons, shields and perhaps small canoes. Kevin Spence, Landcare Facilitator for the Northern Grampians and Buloke Landcare Network stressed how special the lakes are and the need to protect them for all interests.

"When you stand quietly around some of these lakes, you can imagine the greeting and celebrating of tribal visitors and the general life on the lake a hundred generations ago," Kevin said.

Landcare stalwart Rob Youl hosted a tour of his property north of St Arnaud. The property boasts approximately 30 hectares of remnant blue mallee (*Eucalyptus polybractea*) to which Rob has added, with seedlings and direct seeding, another 50 hectares over the last ten years.

Rob's aims are both local and global.

"I would like to think the plantings will be significant for a number of reasons – as a carbon sink to temper climate change, for the improvement of the landscape, for biodiversity benefits and possibly as a future source of eucalyptus oil," Rob said.

Discussion of Landcare's role in agriculture

Following a great evening meal we heard from the VFF President David Jochinke who talked about clean, green agriculture and the role of Landcare. David discussed the pressures on farm production and the need to have sustainable land management systems.

According to David, technology is changing rapidly, particularly in cropping, and farmers are continually pressured to become more efficient – with labour costs often a major item.

"Machinery is getting larger and it is becoming more difficult to manage small areas, such as around paddock trees. There is an ongoing battle to get the balance right between conservation and farm efficiency. Landcare has played a role in identifying conservation issues and urging sustainable agriculture but while we must be sustainable, it is important to remember that farmers need to make a living if they are to survive," David said.

His presentation spurred a robust question and answer session with the remaining dinner guests!

On the last morning of the forum groups and regions gave reports on their interests and activities. We were impressed by the use of new technology, especially for mapping, surveying and recording activities across many areas. Sharing these ideas and knowledge gives confidence to others to take on new ways of doing things. This was a fitting end to a very valuable forum, the first of many we expect under the new LVI banner.

Wendy and Horrie Poussard are foundation members of Australian Landcare International. They have been involved in Landcare and community development for many years. For further information email poussard@iinet.net.au

Residents care for local land and water

By Brian O'Connell

Friends of Land and Water Landcare Group (FLW) was established by residents of the Lifestyle Village in Warragul. Our members' ages range from 65 to 86 years.

The group formed in 2010 when VicRoads arranged for a contractor to cut a firebreak along the northern edge of the village that borders the M1 freeway. The contractor cut a five-metre firebreak along a 300-metre stretch of land, destroying a healthy shelterbelt of native trees and plants and damaging wildlife habitat.

Instead of lamenting the mess or living with the damage, some of the residents set about getting VicRoads permission to clean it up. After six months of negotiation we were given approval, on certain conditions. One stipulation was that the working group had to be overseen by the local Landcare network, so in July 2010 we were set up as a Landcare group under the Latrobe Catchment Landcare Network.

By May the following year the land had been cleared of rubbish including old tyres, concrete blocks, metre-high thistles and dead trees. Then we got underway with planting out 700 native trees and bushes suited to the site. It was challenging work, but the contrast between before and after kept the team enthused and going hard.

Since 2011 there has been considerable growth, which includes grass that needs to be cut regularly. Now the land component of our work is largely made up of maintenance and the control of fallen trees and branches, as well as some smaller decorative plantings. Many people from inside and outside the village now enjoy walking in this pleasant park-like area.

(L–R) Brian O'Connell, John Goodman, Nick van den Burghe and Garry Myers ready for Waterwatch testing near the Hazel Creek test site.

> *We help keep a section of Spring Creek free of the parrot's feather, a semi-submerged aquatic weed that is a widespread and serious local problem.*

Weed control and water testing at Spring Creek

The group is also committed to caring for the waterway that meanders through the village. Spring Creek collects water from west and south of the village, taking it via ornamental ponds into Hazel Creek outside the village and on to the Moe River.

We help keep a section of Spring Creek free of the parrot's feather, a semi-submerged aquatic weed that is a widespread and serious local problem. We also undertake regular testing of water quality through Waterwatch Victoria. Our members take a fortnightly measurement of air and water temperatures, pH, electrical conductivity, reactive phosphorus, and turbidity.

We enter the data under the supervision of our local Waterwatch coordinator. It's satisfying to know that our contribution of data adds to the available knowledge to be drawn on by any scientists in Australia and elsewhere.

We have also participated in waterway revegetation activities in other nearby areas.

Giant Gippsland earthworm encounter

The group's most dramatic encounter occurred in 2011 when we were completing our major planting. With around 20-30 metres of corridor still to plant, one of our workers put his shovel into the ground and uncovered an enormous worm.

A giant Gippsland earthworm uncovered during planting in 2011.

Members of Friends of Land and Water Landcare Group ready for a maintenance session.

> *The group's most dramatic encounter occurred in 2011 when we were completing our major planting. With around 20-30 metres of corridor still to plant, one of our workers put his shovel into the ground and uncovered an enormous worm.*

Fortunately, one of our members had recently attended a seminar given by Dr Beverley van Praagh, a world-authority on the giant Gippsland earthworm *(Megascolides australis)*. Our 1.3 metre specimen was intact so we quickly returned it to the earth. We reported the finding to our coordinator and Dr van Praagh, who were both keen to see pictures.

The next morning we donned sterile inspection gloves and gently uncovered the site where the worm had been found. It was still there, and we were able to complete a gentle re-extraction and photography session. Human handling easily damages the worms so we were pleased when it disappeared back underground. We hope it may still be living in the area and is benefiting from the improved habitat and soil condition created by our revegetation efforts.

FLW is doing small-scale Landcare rather than the grand and sweeping projects that some groups carry out with such inspirational outcomes. Our members are older, so we do what we can manage. We tend our plants, tidy the two walking paths and the shelterbelt, and help to keep our small waterway clean and attractive.

The managers of the Lifestyle Village Warragul strongly support our Landcare and Waterwatch work because the homeowners take such pleasure in its results. That support extends right up to the managing director of the sizeable company that owns this and a dozen other villages.

FLW is an environmental project with social and health benefits for our members. We believe our group could be a good model for other people in our circumstances who are keen to get involved in Landcare.

For further information contact Brian O'Connell at oconnebs@bigpond.com

A section of land on the boundary of the Lifestyle Village Warragul before the clean-up and rehabilitation began.

> *The planting was an opportunity for fishers to put something back into the environment. There were also some good discussions with locals who share our concerns about healthy streams, improved riparian zones and increased fencing off which can reduce fishing access.*

Victorian Fly-Fishers' Association Council Members Alex Evans (left) and Jason Platts braved wet and cold conditions to assist with revegetation works along the Little River.

Fly fishers help revegetate Little River

By Dermot O'Brien

The Victorian Fly-Fishers' Association (VFFA) is well aware that the future of trout fishing in Victoria is dependent on one critical factor – habitat.

With that in mind, 20 VFFA members headed over the Black Spur to Taggerty on a cold and wet Sunday in August 2017 to participate in a riparian revegetation program.

We were met at the Taggerty General Store by Sue Kosch from the Goulburn Broken CMA. Sue explained the plan to plant hundreds of seedlings along the banks of Little River as part of a two-year revegetation program and gave us a demonstration of the best planting technique.

Sue Kosch from the Goulburn Broken CMA demonstrates planting techniques to members of the Victorian Fly-Fishers' Association at Taggerty.

Two years ago this stretch of Little River was choked with weeds including blackberry and Japanese honeysuckle. These weeds were so invasive they had a stranglehold on trees along the river and the CMA had to call in heavy machinery to help clear the banks.

According to Sue, Japanese honeysuckle can live for 70 to 100 years. It chokes trees and shrubs and prevents native plants from establishing.

The CMA and the Taggerty Community Progress Group have been working in partnership to remove the invaders, restore access and improve the general habitat of the Little River riparian zone.

Kitted out in oil-skins and rubber boots, we were lucky the rain held off as we got stuck in and planted the 400 seedlings that had been laid out along the river. The indigenous native species included manna gum, blackwood, prickly currant bush, hazel pomaderris and various tea-tree species and sedges.

Sue Kosch explained the importance of getting the job done so the seedlings had the best chance to establish their roots in spring in preparation for a hot and dry summer.

The local volunteers were very appreciative. They said it would have taken them a couple of weekends to complete the planting.

This was an important project for the VFFA as members have a long association with the area. The Rubicon, Acheron, Steavenson and Taggerty rivers or streams and the Goulburn River have had their waters stalked by our members over many decades.

The planting was an opportunity for fishers to put something back into the environment. There were also some good discussions with locals who share our concerns about healthy streams, improved riparian zones and increased fencing off which can reduce fishing access.

The VFFA hopes to be involved in similar projects in the future.

For further information contact Dermot O'Brien from the VFFA by email at dermotobrien30@gmail.com

Landscape model provides water balance picture

By Alison Oke

The Bureau of Meteorology's Australian Landscape Water Balance website provides information on soil water storage within a region, as well as reporting on current and past soil moisture and runoff conditions.

The website gives interactive access to data, such as estimates of current and historical root-zone soil moisture, for any location in Australia. Clicking on or searching for a locality or catchment will show a daily time-series (up to yesterday) of root-zone soil moisture, evaporation or rainfall for a day, month or year.

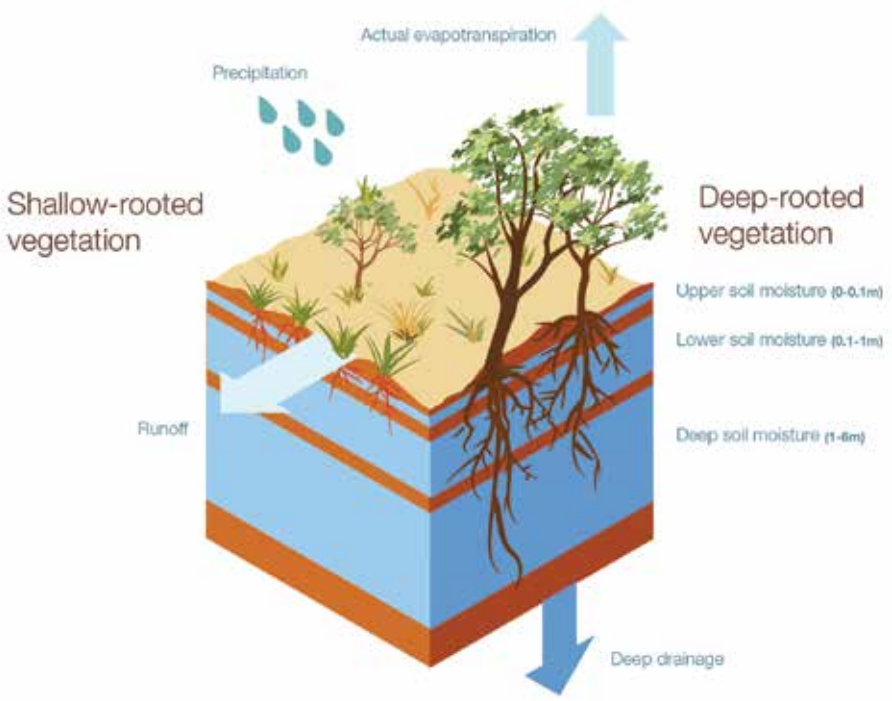
The website can also compare daily or monthly root-zone soil moisture values against the historical record, which commenced in 1911. Other variables, such as soil moisture at different depths, deep drainage to groundwater, runoff to surface water, potential and actual evapotranspiration, and precipitation (rain, hail and snow), can also be accessed.

Landowners and other land managers can use information from the Australian Landscape Water Balance website to analyse the current and historical water conditions on their land and compare it to other areas.

For example, a landowner in Omeo could compare the root-zone soil moisture in the area at the start of November 2017 with the start of January 2017 and see that the soil moisture has dropped from 35 per cent to 13 per cent in a period that would normally see the major increase for the year. Looking back further, the landowner can see it has not been that dry in Omeo since the end of 2009.

The information on the website comes from the Australian Water Resource Assessment–Landscape model (also known as AWRA-L), developed by the Bureau of Meteorology and CSIRO.

The model simulates the flow of water through the landscape from rain to the movement of water through the vegetation and soil and then out through evapotranspiration, runoff or deep drainage to groundwater.



The Bureau of Meteorology's Australian Water Resource Assessment Model.

AWRA-L is a nationally consistent modelling system that simulates water flows at a spatial resolution of 25 square kilometres (a 5x5 km grid). This means data can be compared from grid squares more than five kilometres apart, to see the differences occurring in the local landscape.

Visit the Australian Landscape Water Balance website www.bom.gov.au/water/landscape to find out how your region is tracking compared to others, and put current conditions in a historical context.

For more information contact the Australian Landscape Water Balance staff at the Bureau of Meteorology by email awrams@bom.gov.au

Landowners and other land managers can use information from the Australian Landscape Water Balance website to analyse the current and historical water conditions on their land and compare it to other areas.

Around the State – News from the Regional

North Central

The 2017 Chicks in the Sticks event hosted with Avon Plains-Banyena Landcare Group and Project Platypus, was a resounding success.

More than 70 women gathered along the banks of Walkers Lake to enjoy the cultural and natural values of the lake, a key site for the local Landcare group. After walking the lake's perimeter in gumboots and dresses, the women heard from speakers Alicia Cain and Melissa Connors. This annual event continues to grow and make connections for Landcare in the region.

Reporting from the 2016-17 Community Grants program has provided insight into the diversity of activity and approaches Landcare groups and networks are implementing across the catchment. The projects ranged from endangered aquatic wetland herb plantings to squirrel glider breeding and nest box building. The Landcare community deserves credit for its commitment to grant submissions and project management.

For more information contact Tess Grieves on 5440 1890.

Corangamite

Leigh Catchment Group celebrated 20 years of operation in November 2017. More than 100 community members enjoyed a walk through a 1997 reclamation site showcasing what can be achieved by setting goals, planning and working together. The evening included a presentation by Rob Youl on Landcare's future pathways.

After three years of work by local community and environment groups, the *Discover the real Ocean Grove* publication celebrates the location's woodlands, wetlands, coast and estuary environments. The publication is an initiative of the Bellarine Catchment Network.

The Barrabool Hills Landcare Group has developed a revegetation field guide *Flora of the Hills* with support from Gordon TAFE, Geelong Landcare Network, Wettenhall Environment Trust, Surf Coast Shire and the Bendigo Bank.

2018 will be very busy for Landcare with 15 on-ground projects and 28 support grants that have been funded by the Victorian Landcare Grants program. Planning and project development for National Landcare Program initiatives has also been a big focus for the region.

For further information contact Tracey McRae on 5232 9100.

Avon Plains-Banyena Landcare members lead a Chicks in the Sticks tour around Walkers Lake.

East Gippsland

The Far East Victoria Landcare Network has developed a pollinator's calendar highlighting local species that produce pollen and nectar and when to plant them. More than 250 people attended a Healthy Bees Healthy People field day held at Bruthen in October 2017 where the calendar was launched.

The East Gippsland Women in Agriculture Group held several events throughout the region. More than 30 women gathered at a Tambo Valley property in November 2017 to address topics such as succession planning, mental health and the challenges of working off farm.

Landcare groups are busy planning for their 2018 community projects. It is inspiring to see the work of our dedicated volunteers in the region.

For further information contact Carolyn Cameron on 5150 3582.

Nectar and pollen producing plants were on display at the Far East Victoria Landcare Network bee day held at Bruthen in October 2017.

West Gippsland

The region was busy with many Landcare field days and workshops over the summer. South Gippsland Landcare Network joined forces with Bass Coast Landcare Network to run a workshop on healthy soils, nutritional food and healthy people at Inverloch. Presentations focused on the importance of producing and eating high quality food that is sustainably produced with minimum impact on the environment.

Yarram Yarram Landcare Network hosted a successful Jack and Albert River Restoration tour that followed the catchment from the headwaters to the salt marsh.

Maffra and District Landcare Network hosted several field days on grazing, continuing their focus on holistic farm management. Gippsland Intrepid Landcare ran a kayaking trip on the Macalister River to map willows for management.

More events are planned in upcoming months. Check your Landcare network for further details.

For further information contact Kathleen Brack on 1300 094 262.

Wimmera

We farewell Bronwyn Bant and welcome Loki McIntyre to the role of Upper Wimmera Regional Landcare Facilitator. Loki will be working with Ray Zippel from the northern Wimmera and Lisa Oliver from the west Wimmera.

A *2018 Trees of the Wimmera* calendar using photographs from last year's competition has been produced. The calendars have been circulated to groups and can also be obtained through your local Landcare facilitator or from the CMA.

Landcare Coordinators

Landcare will support the Wimmera Machinery Field Days on 6–8 March 2018. Chris Humfrey's Wild Action Zoo will be at the Horsham Fishing Competition on 11 March 2018. A Harmony Day event with Tim Low and Barengi Gadjin Land Council will be held at Horsham Town Hall on 21 March 2018.

For further information contact Joel Boyd on 5382 9919.

Goulburn Broken

The region had a great result with funding from the Victorian Government Biodiversity On-ground Action program with lots of successful projects. Our networks are continuing to deliver quality projects such as Gecko CLaN soil moisture and water technology trials.

In November 2017, the region hosted a visit from the Federal Assistant Minister for Agriculture Luke Hartsuyker. Goulburn Murray Landcare Network and Regional Landcare Facilitator Ash Rogers demonstrated the benefits of the holistic farming and partnership work that they have been undertaking in the Shepparton region.

For further information contact Tony Kubeil on 5761 1619.

North East

Landcare and other community groups in the region worked in partnership with the CMA to develop a wide range of applications for the National Landcare Program Smart Farms Grants during November 2017.

The Greta Valley Landcare Group released the *Caring for Your Rural Property* guide. This practical guide is aimed at improving the health and productivity of land. Funding was provided through the National Landcare Program and local partners. Go to www.gretalandcare.org.au

Swamps Rivers and Ranges, a community-driven landscape restoration project based in the north east has released a *Nest Box Guide* that was produced with funding from the Norman Wettenhall Foundation. This guide provides nest box best practice design, placement, maintenance and monitoring advice for a range of key species. Go to www.swampsriversandranges.org

For further information contact Tom Croft on 02 6043 7648.

Port Phillip and Westernport

Congratulations to the 22 groups that were successful with their project applications for a 2017–18 CMA Community Grant. The grants are a combination of funds from the Victorian Landcare Program and the National Landcare Program. In addition, 55 groups and networks received a $500 Victorian Landcare Program Support Grant.

Thank you to all the groups and networks that completed the annual Landcare survey – the data provided has been used to compile the 2016-17 Landcare Report Card that is now available on the CMA website.

The Bass Coast Landcare Network and the Western Port Catchment Landcare Network have both recently signed partnership agreements with the CMA that affirm their strong working relationships.

For further information contact Doug Evans on 8781 7920.

Glenelg Hopkins

Congratulations to the 18 groups that were awarded Victorian Landcare Grants for a range of on-ground projects and capacity building activities in the region.

The CMA welcomes Jody Taberner as the new Landcare Facilitator working in the west of our catchment. Jody's position is funded through the Victorian Landcare Facilitator Program and she is already working with a number of groups including: Wando River Landcare Group, Culla Pigeon Ponds Land Management Group and the Balmoral Landcare Group.

The Hamilton to Coleraine Rail Reserve Committee has continued with development of the rail trail. The group held a recent celebration with the Coleraine community to mark the opening of the western end of the trail.

The Gazette Land Action Group engaged a facilitator to conduct a recent planning day that helped to produce a useful document to guide the group's activities into the future.

For further information contact Tony Lithgow on 5571 2526.

Mallee

The 2017 season was a challenge for Landcare in the region. Large stubble loads and reasonable sub-soil moisture left behind from 2016 promised a good follow-up season, however mice numbers were high early in the season which required some growers to re-sow crops. Paddock baiting occurred in some areas.

Early rains provided a good start, but the rain in September and October 2017 was limited and widespread frost coupled with hot winds impacted flowering crops causing below average yields. Alternative crops such as peas, lentils, lupins and canola have also had disappointing yields and poor returns. Some growers managed to finish harvesting before the early summer rain but many didn't, which further decreased the value of crops.

A number of Landcare groups took advantage of the early rains and built on revegetation linkage corridor projects, as well as weed and rabbit control projects.

Victorian Landcare Grants, National Landcare Program Targeted Grants and National Landcare Program Regional Grants have been finalised and contracts have been sent out to all successful groups.

For further information contact Kevin Chaplin on 5051 4344.

Aboriginal Landcare Facilitator

Jackson Chatfield has recently taken on the role of state-wide Aboriginal Landcare Facilitator based at DELWP in East Melbourne.

Jackson is a proud Gunditjmara man from south west Victoria. With a background in Aboriginal social policy implementation and Aboriginal cultural heritage management, Jackson brings a wealth of knowledge, skills and experience to the role. He is passionate about caring for Country and the preservation and protection of Aboriginal cultural heritage.

Jackson previously worked with Court Services Victoria where he focussed on creating partnerships to provide better pathways for Aboriginal people who found themselves at risk and in contact with the justice system.

Jackson is excited to join the Victorian Landcare Team and is looking forward to the opportunity of working with Traditional Owners, Aboriginal communities and the Landcare community.

For further information contact Jackson Chatfield on 9637 9071 or 0419 504 451.

In brief

Getting the most out of the Gateway

The updated Victorian Landcare Gateway website has 50,400 users who clocked up 69,750 sessions, and 159,800 unique page views since the website was launched in September 2016. Currently 28.5 per cent of Gateway users access it by mobile phone and nine per cent via tablets. Of online readers of the Victorian Landcare magazine, almost 16 per cent access it by tablets, 12 per cent by mobile phones, with the rest reading it on their computers.

The site's most visited pages are 'Resources' and 'Find a group'.

The Gateway is where many new Landcarers go to find information on Landcare so it's important for Landcare groups and networks to keep their information and contact details current on the Gateway.

Logging in to update your group or network pages is simple. If you don't have editing permission email landcarevic@gmail.com so your editing rights can be set up.

The Gateway is a great place to share Landcare-related resources. The more Landcare resources that are posted on the Gateway, the more effective the website will be as a store of Landcare information and a resources pathway for the Landcare community.

Over the coming months registered Gateway users will be sent links to some useful tips and advice on how to make better use of the Gateway. Go to www.landcarevic.org.au/

New child safety guidance note

By Susi Johnson

Landcare Victoria Incorporated has developed a child safety guidance note, *Child Safe Standards – First Steps*.

The guidance note was put together after consultation with the Commission for Children and Young People.

Children, young people and families are the future of Landcare and we want them to be involved. Keeping children safe at Landcare activities and events involves more than managing tripping hazards and allergies; it is also about preventing harm and abuse.

The Child Safe Standards are a result of recommendations of the Betrayal of Trust inquiry and evidence of what works to prevent child abuse, and are in addition to the Working with Children Checks. Being child safe is about awareness, managing risks and reducing the opportunities for abuse.

Susi Johnson is the Executive Officer at Landcare Victoria Incorporated. The guidance note is available on the Victorian Landcare Gateway. Go to www.landcarevic.org.au and search under resources/focus/group management.

Next issue

The next issue of the magazine, to be published in winter 2018, will feature stories about Landcare and research. Stories on all aspects of Landcare-related research are sought, from citizen science projects through to large-scale experiments and trials.

Our readers are keen to learn about the successes of different research projects, as well as what hasn't worked, and the insights and reflections of your group or network along the way. Please contact the editor with your story ideas.

Contributions should be sent to the editor by Thursday 29 March 2018

Carrie Tiffany, editor
Victorian Landcare and Catchment Management Magazine

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