



Wallumetta

The Newsletter of Ryde-
Hunters Hill Flora and
Fauna Preservation Society
Inc.

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PRESIDENT'S NOTE

The NSW Government has announced plans to increase the height of the wall of Warragamba Dam by 14 metres. The stated reason is to mitigate flooding in the area below the dam. Currently the flood plain is not suitable for development and it seems that the proposal is aimed at providing more land to accommodate Sydney's expanding population which is growing by 100,000 each year.

The Water NSW Amendment (Warragamba Dam) Bill 2018 seeks to overturn provisions in the National Parks and Wildlife Act, 1974 that currently protect the Blue Mountains and Nattai National Parks from artificial flood inundation.

The proposed raising of Warragamba Dam's wall will periodically flood 4,700 hectares of the Greater Blue Mountains World Heritage national parks and 65 kilometres of wilderness streams upstream of the dam wall.

This flooding will have serious and lasting impacts on the biodiversity and threatened species that contribute to the park's world heritage listing. These include the loss of habitat for the critically endangered Regent Honeyeater and the nationally threatened Camden White Gum. The periodic flooding will also increase erosion and significantly impact on water quality owing to increased sedimentation and silt runoff.

It will also destroy significant cultural heritage sites of the Gundungarra, including artwork, camps and ceremonial sites. These sites are so important that they have been proposed for recognition as an Aboriginal Place.

Another aspect of the proposal is the significant impact it will have on the Greater Blue Mountains World Heritage Area (GBMWA) listing. The World Heritage listing recognises the international significance of the biodiversity in the Blue Mountains and Nattai National Parks and reserves. The GBMWA contains significant numbers of rare or threatened species with more than 70 listed threatened animals and over 100 threatened plants.

Raising the wall seems futile as this will not prevent all flooding. The source of half the flooding is downstream of the dam. Alternatives to manage and mitigate flood risks in Hawkesbury Nepean Valley have been identified. This includes lowering the average water level behind the dam to contain build-up during heavy rain events.

The proposal to raise the Warragamba Dam wall is currently subject to an inquiry by a select committee of the Legislative Council. The Society will be making a submission to the inquiry and members are also encouraged to make a submission. The link to the Inquiry is,

<https://www.parliament.nsw.gov.au/committees/listofcommittees/Pages/committee-details.aspx?pk=262>

Frank Breen
President

IVANHOE ESTATE AND WIDENED POWER TO REMOVE TREES

City of Ryde councillors are opposed to the NSW State Government's Ivanhoe Estate development proposal and members of the Ryde Hunters Hill Flora and Fauna Preservation Society have also been lobbying against it. Submissions are now closed for this State Significant Development (SSD) and can be viewed at

<https://www.planningportal.nsw.gov.au/major-projects/project/SSD-8903/submissions/12921/3251?query=&classification=All&page=0>

We are aware of some concerned people who were unable to make submissions because of the clunky nature of the website, requiring the establishment of an account and password sign-in which some found impossible to do.

Furthermore, concerns have been raised about the Ivanhoe redevelopment's impact on the structural integrity of an adjoining building, made all the more credible by the rising number of building failures that have been featured in recent news.

But our main concern is the removal of a prodigious number of mature trees.

547 trees were approved for removal and Stage One adds a further 309 trees for removal. This includes the adjoining Sydney Turpentine Ironbark Forest (STIF), now gazetted as a Critically Endangered Ecological Community under the under both federal legislation and the NSW Biodiversity Conservation Act, 2016.

The project also includes the removal of trees on the edge of a neighbouring property without the owner's consent.

We have heard that the State Government is considering introducing legislation that will permit the removal of trees, if they are "within strike distance." Or, put another way, this means that if someone is concerned about a tree, they can have it pruned or removed, without prior council approval. The implications of this for our Urban Forest are dire.

Moreover, the Roads and Maritime Services (RMS) have expressed their concern with Stage One of the Ivanhoe Estate development, which includes constructing a slip road off Epping Road into the estate, cutting through the centre of the STIF. The RMS submission includes widening of the slip lane to increase vehicle access within the development precinct, together with the reservation of the entire area currently occupied by the Critically Endangered STIF, for any future RMS widening of Epping Road. **RMS engineers are effectively saying that the STIF has to go.**

The Ivanhoe Estate redevelopment, being a NSW government owned project, should be an example of best practice to the construction and development industry, with regard to site usage, design, planning and building practice consistent with maximising the preservation of the existing tree cover and open space.

Instead, there are early signs that the redevelopment appears to be maximising the usage of the site, with inordinate

massive tree loss, giving rise to concerns that it will be yet another high-rise over-development, with all attendant issues. Ivanhoe Estate could showcase best practice for planning and developments, or decisions to not redevelop. It would be good if the NSW State Government took this golden opportunity to set a good example.



OPEN SPACES GREENER SYDNEY FUNDING FOR CITY OF RYDE

The Society recently wrote to City of Ryde Council to ask about their participation in both the NSW Open Spaces and Greener Sydney package and the Department of Planning and Environment's Five Million Trees program. We pointed out many urban forest trees have been destroyed on Ryde development and infrastructure sites, and there is a strong case that many of the trees to be planted under the government's program should be indigenous trees to offset some of the trees destroyed under state government approved overdevelopment planning changes.

The reply from City of Ryde Council was that they were successful in obtaining \$150,000 in the Open Spaces Greener Sydney Funding Program to match existing funding identified by Council for its Street Tree and Park Tree Planting Program. Monies will be expended in the 2019/20 financial year. There was no specification that indigenous trees would be planted under this scheme.

WILDLIFE PROTECTION AREAS

As previously reported, the proposals are:

- ☐ **Field of Mars Reserve** - Category 1 Wildlife Protection Area (will continue to prohibit both dogs and cats from entering the reserve)
- ☐ **Kittys Creek Corridor** - Category 2 Wildlife Protection Area (allows dogs to be walked on leash but prohibits cats in the parks and reserves)
- ☐ **Terrys Creek Corridor** - Category 2 Wildlife Protection Area (allows dogs to be walked on leash but prohibits cats in the parks and reserves)

The consultation period is now over and City of Ryde Council is awaiting a report. We have been told informally that an overwhelming number of responses were in favour of the proposals.

GLOBAL FARMING TRENDS A THREAT TO FOOD SECURITY

Pollinator-dependent crops may be too much of a good thing. Industrial agriculture's growing dependence on single, pollinator-dependent crops jeopardises global food security and economic stability.



Research, published in the journal *Global Change Biology*, indicates too little diversity and too great a dependence on pollinators.

The study is based on 50 years of global and regional data from the United Nations Food and Agriculture Organisation. The world's total agricultural area increased by 40.6% over that period and land covered by crops reliant on pollination from bees and other insects grew by a massive 137%. However, crop diversity only increased by 20.5% overall, and even declined in some places.

Crop diversity provides a stable food source for pollinators all year round. But if only one or two crops are grown, the available pollen is limited to certain times of the year. Also, monocultures impact biodiversity, habitats and natural pest control, increasing reliance on pesticides and herbicides. These factors all impact the survival of pollinators, which are declining worldwide.

Recommended solutions include improving bee habitats, intercropping with native plants and hedgerows, and restoring natural areas next to crops.

WE MUST LOOK PAST SHORT-TERM DROUGHT SOLUTIONS AND IMPROVE THE LAND ITSELF

This is an abridged version of an article which was originally published at The Conversation. For more detail and relevant links see theconversation.org.

Farmers who invested in natural assets during the Millennium Drought are coping better with lack of rain now. Photo: CSIRO

(by [David Lindenmayer](#), Professor, The Fenner School of Environment and Society, Australian National University, and [Michelle Young](#), Director, Sustainable Farms, Australian National University)

With drought ravaging Australia's eastern states, much attention has been given to the need to provide short-term solutions through drought relief. But long-term resilience is a vital issue, particularly as climate change adds further pressure to farmland.

Research has found that helping farmers improve the rivers, dams, native vegetation and trees on their land increases productivity, resilience of land, and through this the health and well-being of farmers.

Now is the time to invest more heavily than ever in vital networks in regional Australia, such as Landcare (now celebrating its 30th anniversary) and natural resource management groups like Local Land Services and Catchment Management Authorities.

Growing pressures on agricultural land

Up to 370 million hectares of land in Australia and the Pacific is degraded. Diminished productivity across such a large area has significant implications for long-term agricultural production.

Australia also has one of the worst records for wildlife diversity loss, including extensive loss of biodiversity across much of our agricultural land. The problems of degradation and biodiversity loss are often magnified under the pressure of drought.

Better lands make more money

Many studies have shown improving natural assets on a farm can boost production, as well as avoid costs of erosion and flood control. Restored riverbank vegetation can improve dry matter production in nearby paddocks, leading to greater production and up to [5%](#) boost in farm income.

Shelter belts (tree lanes planted alongside paddocks) lower wind speeds and wind chill, and boost pasture production for livestock while at the same time providing habitat for biodiversity.

Long-term work with farmers who invested in their natural assets prior to, or during, the Millennium Drought in NSW suggests these farmers are faring better in the current drought.

Investing in resilience for the long-haul

Well-supported and resourced organisations like Landcare groups are pivotal to supporting effective land management, which improves degraded land and helps through tough times.

However, Landcare and other natural resource management agencies have been subject to major budget cuts over the past decade.

They are also a key part of the social fabric of rural communities, bringing together landowners to exchange ideas and support each other. Indeed, the Australian Landcare model is so well regarded globally it has been adopted in 22 other countries.

This drought is a critical decision point. The need to invest in maintaining and improving our vegetation, water and soil has never been more apparent than it is now. We have a chance to determine the long-term future of much of Australia's agricultural land.

WHAT'S IN A (SCIENTIFIC) NAME - 3. EGGS, BACON AND MORE PEAS

Many plants in the Fabaceae family (no more puns, we promise!) have flowers with the typical pea or bean shape, featuring a large erect petal (the “banner” or “standard”), often with markings to guide insects. When European botanists began to study Australian plants, they found many which were clearly Fabaceae but did not seem to belong to any known genus. Hence they had to make up new genus names. Some are descriptive (e.g. *Gompholobium*, Golden Glory Peas or Wedge-Peas, from Greek *gomphos*, “nail, bolt, dowel”, and *lobos*, “pod”).

Often, though, classifiers simply stuck a Latin ending on to the name of a person they wanted to commemorate, not necessarily linked to the particular plant. For example, in the Ryde area we have members of the Fabaceae genera *Dillwynia*, *Bossiaea*, *Pultenaea* and *Daviesia*, named after botanists Dillwyn, Boissieu de la Marinière, Pulteney and Davies respectively, while *Hardenbergia* celebrates the sister of the botanist Carl von Hügel.

As we have said, the colloquial term “eggs and bacon” is used of various pea-family plants whose yellow petals are splashed with red. Also, confusingly, many plants have more than one English name (see below). The scientific (Latin) names at least help us to know what we are talking about. Here are a few pea flowers common in our area.

- ***Bossiaea heterophylla***, Variable Bossiaea; *hetero-* = “other, different”, and *phylla* = “leaves”, referring to the variation in their size and shape.
- ***Bossiaea obcordata***, Spiny Bossiaea; *obcordata* is botanical English “obcordate”, from *ob* = “against, opposite”, + *cordata*, “hearted, heart-shaped” (Latin *cord-* = “heart”, as in “cordial”), referring to heart-shaped leaves attached at the pointy end.
- ***Dillwynia retorta***, Heathy Parrot-Pea; *retorta*, “twisted”, refers to the leaves; cf “retort”, the vessel with the downturned neck used for distilling.
- ***Platylobium formosum***, Handsome Flat-Pea; from *platy* = “broad, flat”, *lobos* = “pod”, and *formosum* = “handsome”.
- ***Pultenaea daphnoides***, Large-leaf Bush-Pea or Bitter-Pea. Les Robinson, in his *Field Guide to the Native Plants of Sydney* (2nd ed., 1994, p. 85) gives no English name. *Daphnoides* is the Greek word *daphne* with the ending *-ides*, “like”. In ancient times *daphne* mainly denoted the “bay”, or “laurel” tree (*Laurus nobilis*), sacred to the god Apollo, but also smaller plants with similar features. The genus *Daphne*, defined by Linnaeus, includes various plants known by that name in English. Their leaves are generally elongated in shape, like these of laurel.
- ***Pultenaea flexilis***, Graceful Bush-Pea; *flexilis*, “flexible”, refers to the leaves.

□ All the above are egg coloured, with or without the red bacon; but some pea flowers have different colours. For example:

- ***Kennedia rubicunda***, Dusky Coral Pea; *rubicunda* means “red, ruddy”, like the English word derived from it.
- ***Hardenbergia violacea***, known as False Sarsaparilla, Purple Coral Pea, Happy Wanderer, and other names; the flowers of this climber are “violet coloured”, *violacea*.
- ***Glycine clandestina***, Twining Glycine or Love Creeper, named *clandestina*, “hidden”, probably because the small, generally mauve flowers are often hidden in greenery (Robinson, p. 334). The genus name *Glycine* was created by Linnaeus from Greek *glykys*, “sweet”, probably because of the sweet tubers of one species (Hymowitz and Newell in the journal *Economic Botany*, 35(3), 1981, p. 272). That plant is no longer included in *Glycine*, but the name has stuck! The genus also includes the soya bean, *Glycine max*.

We do not have space to show pictures of all these beautiful plants, but you can find them on the computer archive at the Field of Mars Visitor Centre, or on various websites.

NEWS FROM THE FIELD OF MARS

There were significant falls of rain during June and early July, before the more recent dry spell. These conditions have increased the populations of invertebrates and amphibians, to the delight of birds who seem to have already begun nesting in readiness for spring. The turkey mound near Monash Road is active and, around the Visitor Centre, two male turkeys are displaying their colourful wattles as an indication that they are ready to breed.

Cemetery Encroachment Restoration Works

The large mound of excess soil has been removed to a site within the cemetery grounds



near Cemetery Creek 2, where it now looks like a levee bank within the cemetery grounds. Meanwhile, the affected area at the headwaters of Cemetery Creek 0 has been regraded and a program of planting indigenous natives has begun. The boundary is now delineated by a 1.2m high fence. Compare the scene in this photo with the view from the other side on page 6 in the June 2019 Wallumetta:



National Tree Day

The morning of Sunday 28 July was sunny as over 200 descended upon the Field of Mars Reserve for another planting exercise across the creek from the Visitor Centre. The area of focus this year is between the successful 2017 planting on the embankment (by the Warada Track) and the nearby bushcare site. It has been planted with a mixture of indigenous shrubs and trees, to establish continuity between the area planted on National Tree Day 2017 and the nearby bushcare site. As with these neighbouring areas, the newly-planted section is on the old landfill adjoining natural bushland on the south-eastern facing hill.

When planting was completed, most participants returned to the Visitor Centre for refreshments and a barbecue + salad lunch provided by City of Ryde Council, and cooked and served by members of our Society.

The photos here are similar views from near the Warada Track boardwalk in the morning before planting began, and later in the afternoon after completion. In past years when this area was covered in large weed grasses, swamp wallabies favoured it as a place to hide and feed. We hope they will find the area to their liking again.



Visitor Centre

On Tuesday 16 July we provided a sausage sizzle lunch for City of Ryde Council staff attending a Biodiversity Training Day at the Environmental Education Centre.

Now that the days are getting longer, our weekend opening hours are back to being 9am-5pm. Members are always welcome to join our team of volunteers to keep the Visitor Centre open on weekends. We do four-hour shifts. No specialised skills are required, and Alfred will happily provide the small amount of training needed. Frequency and times of each person's shifts are negotiated individually, according to preferences and availability. If you are interested please phone Alfred on 02 9879 6067.



Bushcare

City of Ryde Council is expanding its Environmental Health and Natural Areas staff, and the make-up of volunteer bushcare groups is under review. There will be no overall decrease in sites, but the "Finch Avenue" site is likely to be renamed "Strangers Creek" and may move its activities to tackle some large invasive weed



outcrops further along the creek. This month, among other things, we tackled a small outcrop of lantana growing into the bush, and admired nearby the flowering *Epacris purpurascens* var. *purpurascens*.

From seed collected at the Cemetery Creek 2 site, several *Viminaria juncea* and *Hakea sericea* plants have been nurtured and we recently planted these back into the bush. During this process we removed some weeds including ochna and blackberries which had started to invade otherwise pristine bushland.

Meanwhile, at the Monash Road site the go is "Westward hoe!" as we clear large weeds including privet and cestrum (*Cestrum parqui* is a vigorous tree-size weed, toxic to animals). Over the years we have discovered that the simple act of clearing the site enables natives to regenerate from dormant seedstock that has remained viable in the ground below these weeds.

COMING EVENTS AT THE FIELD OF MARS

☐ Sunday 11 August: **Family Day** - see details on back page.

☐ Saturday 31 August: **Powerful Owl Talk** by B. Mott - 11am at Field of Mars Environmental Education Centre, organised by City of Ryde Council. Details will be on <https://www.ryde.nsw.gov.au/Events/Listing>

☐ Saturday 28 September: **Rainwater Tank Workshop** - 9am at Field of Mars Environmental Education Centre, organised by City of Ryde Council. Details will be on <https://www.ryde.nsw.gov.au/Events/Listing>

□ October (to be organized by our Society and date yet to be set): Celebrate National Bird Week with walks led by our resident expert Cathy Goswell.

Ryde-Hunters Hill Flora and Fauna Preservation Society invites you to:

Family Festival in the Field of Mars Sunday 11 August 2019 from 10am



- Displays by Habitat Network, City of Ryde Council (Sustainability); Field of Mars Environmental Education Centre
- Environmental puzzles for the family to solve and enjoy



- Self-guided walks
- Musical entertainment by members of Ryde East School – 10am
- Inspection of City of Ryde Council National Tree Day plantings
- Refreshments including tea, coffee, biscuits, cool drinks, and a barbecue + salad lunch

(There is no entry charge but donations welcome)

Events at special times include:

- 10.30am-12.00pm Meet the birdlife - Guided walk with Cathy Goswell *
- 11.00am-11.30am Tiny Tunes: musical activities for children up to 5 years old *
- 12.00pm onwards Bush Art and Craft
- 1.00pm-1.30pm Tiny Tunes: musical activities for children up to 5 years old *
- 1.30pm-2.30pm Wildflower bushwalk *

* *Prior registration is essential for events marked * - see below*

(For all events please meet at the Visitor Centre in the Reserve.)

- Wear closed shoes and a hat.
- Bring your own drinking water bottle.
- Children under 15 must be with a parent/carer.

*** Prior bookings are essential for guided walks and Tiny Tunes (specify time and number of children) as numbers are limited: phone or leave a message for Alfred on 9879 6067 or email alfred.vincent@bigpond.com**

Main entry to the Field of Mars Reserve is at Pittwater Road: there is a carpark outside the gate, under the concrete viaduct.

Additional entrances with on-street parking are at Kennedy St, Westminster Rd and Monash Rd.

