

Biodiversity in Maroondah - Actions for Council Consideration

As part of the Maroondah Vegetation Review that led to the adoption of the Maroondah Vegetation Strategy 2020-2030 in March 2020, Dr Graeme Lorimer (Biosphere P/L) was commissioned to undertake a contemporary assessment of Maroondah's biodiversity and Sites of Biological Significance.

The findings were presented in the report "Biodiversity in Maroondah - Volumes 1 & 2 - 2020"

This report provides valuable insights into Maroondah's biodiversity and is being used by Council in its efforts to protect and manage our biodiversity and habitats. In addition to informing the Maroondah Vegetation Strategy, it is also being used to inform planning scheme amendments, planning decisions, master plans, and reserve management plans amongst other things.

In Section 11 of Volume 1 (pages 83-112), Dr Lorimer presents a number of "Actions for Council Consideration". In late 2022, Maroondah City Council staff from relevant teams were consulted in preparing responses to those suggested actions. These responses are provided below under the respective headings from Dr. Lorimer's report and need to be read in conjunction with the suggested actions. (*Responses as at February 2023*)

11.1 Strategic Planning

11.1.1 Establishing Objectives

11.1.1.1 Connecting People with Nature

The principle of helping people experience nature in their daily lives is supported, with a preference to broaden the experience to more than just birds. The role of the planning scheme in facilitating this is limited, and subject to DELWP's views and potential changes to the SLO. Options being considered include the addition of a standard condition that encourages use of indigenous and native plants to any landscaping requirements as part of a development approval (as guided by neighbourhood character and significant landscape objectives), and/or changes to the decision guidelines in the SLO schedules.

Currently all permits issued have notes that refer to the value of planting indigenous species (more generically for flora and fauna, not specifically for birds), including a list of the more common and readily available species in Maroondah, including Eucalyptus species.

We are unlikely to mandate the establishment of rooftop gardens and community gardens as a requirement in the Planning Scheme. However, the establishment of demonstration green roofs, and options for incentivising, are already actions in the Maroondah Vegetation Strategy.

11.1.1.2 Stormwater Management

The principle of restoring more natural patterns of water runoff and seepage to protect significant floodplain vegetation and aquatic habitat is supported.

Statewide planning provisions introduced through *Amendment VC154 - Stormwater management* (refer to [Planning Advisory Note 75](#)) address the concerns raised, in particular

Clause 53.18 - Stormwater management in urban development, that extends the existing stormwater management requirements for residential subdivision and apartment developments to include all commercial and industrial subdivisions and developments, all public use developments, and all residential multi-dwelling developments.

11.1.1.3 Wildlife of Streams, Stream Corridors and Wetlands

The intent of recognising the importance of streams, stream corridors and wetlands as habitat for wildlife is supported, and how best to incorporate into the Maroondah Planning Scheme will be considered as part of the planning scheme review.

11.1.2 Sites of Biological Significance

11.1.2.1 Selection of Planning Controls

Preparation of the documentation required to support a planning scheme amendment to largely replace the existing VPOs with ESOs, based on the recommendations in Biodiversity in Maroondah 2020 is underway.

11.1.2.2 Content of Overlay Schedules

The intent of the guidance provided for the schedules to the ESOs is supported, however will be subject to state planning requirements such as the limitation of only one objective being allowed for an ESO. It is expected that this can be addressed by providing more detail in the associated statement of environmental significance.

11.1.2.3 Determination of Overlay Boundaries

As part of the documentation required to support a planning scheme amendment to introduce the ESOs, criteria for deciding where to place the overlay boundaries will be articulated and applied to each situation. These criteria will take into account the possible reasons for doing so that have been articulated in the report.

11.1.2.4 Locally Threatened Plants

The intent of affording protection to locally threatened plant species is supported, however will be subject to state planning requirements such as the limitation of only one objective being allowed for an ESO. It is therefore more appropriate to incorporate it into the associated statement of environmental significance. A schedule of locally threatened species would need to be incorporated, and therefore not readily updateable.

11.1.2.5 'Sites of Biological Significance' Local Planning Policy

It is likely that the current 'Sites of Biological Significance' Local Planning Policy will become obsolete following the translation of the Maroondah Planning Scheme into the new format as required by *Amendment VC148- Planning* (refer to [Planning Advisory Note 71](#)), so much of the intent of this policy will be integrated into the schedules to the new ESOs, and elsewhere as identified through the planning scheme review.

11.1.2.6 Exemption of Species from Clause 52.17

Agree in principle to exempt Sweet Pittosporum and Sallow Wattle from the need to get a permit to remove as they are both recognised as seriously invasive environmental weeds. Exempting the other 21 species suggested is not considered justifiable on these grounds.

11.1.3 Zones

The issues raised will be taken into account when future opportunities for rezoning arise.

11.1.4 Greyfield Redevelopment

Greening the Greyfields is an innovative approach to urban renewal that encourages landowners within a precinct to amalgamate land holdings for improved site and precinct-level outcomes.

The enabling planning scheme amendments C134maro (Ringwood Greyfield Renewal Precinct) and C136maro (Croydon South Greyfield Renewal Precinct) are with the Minister for final approval. Following approval of the amendment Council will commence project promotion and consultation with precinct landowners to encourage implementation of the project.

11.2 Statutory Planning

11.2.1 Planting Guidance

With a focus on locations in environmentally sensitive areas such as those covered by a VPO or ESO, the list of recommended species will be expanded to include plant species in the 'critically endangered' category of dying out in Maroondah that are also considered readily available from the local indigenous nurseries.

11.2.2 Harmonisation of Offsets and other Permit Conditions

Any overlap of 'offsets' or other compensation requirements involving vegetation will be harmonised to achieve the various requirements, and in environmentally sensitive locations such as those covered by a VPO or ESO, species that are 'critically endangered' with dying out in Maroondah, and are readily available, will be favoured.

11.2.3 Mapping Inaccuracies

Where Council has the discretion, Council's Statutory Planners will use the best available spatial information for understanding the relevant vegetation types (EVCs) for a site

11.2.4 Staff Training

Council has an Environmental Planning team within Statutory Planning that has knowledge and skills in plant identification and native vegetation management, and that provides advice and inhouse training to the other statutory planners, including the production and use of associated standard permit conditions for land management activities.

11.3 Locally Threatened Species Strategy

At this point in time, Council has no plans to prepare a threatened species strategy, however the following priority issues are being addressed as described below.

11.3.1 Rescuing Plants of Winter-sodden Soil

The option for redirecting stormwater to rehydrate soils will be investigated in specific and appropriate locations - eg council reserves supporting Swampy Woodland vegetation.

Where this is considered feasible it will be incorporated into relevant Master Plans and/or Structure Plans that in turn justify/authorise the investment in design and delivery of any such stormwater diversion project.

The issue with mowing of locally threatened plants on winter-sodden soils of floodplains during their flowering and seeding season, and when the ground is boggy has been recognised and addressed. Mowing schedules and practices have been modified accordingly (under advice from the Bushland Team), and seed is being collected and propagated to reinforce existing or establish new populations in suitable locations

11.3.2 Planting Locally Threatened Plants

Bushland areas are being managed to support biodiversity in general, including the conservation of wild populations of locally threatened plant species, and planting is used as a way of supplementing those small populations. Trial and error has resulted in an improved understanding of which species are better suited to supplementary planting. Several species are proving to be too difficult to propagate and/or sustain in the wild once planted.

The Bushland Team is working closely with the two indigenous nurseries (including doing some seed collection, initial germination, and direct seeding) to enable supplementary plantings for species with small populations.

11.4 Management of Nature Reserves

Drawing on information in Dr' Lorimer's report, Council has devised a simple but repeatable method for monitoring progress towards the following targets adopted at its Council Meeting on 24th April 2017:

- 'No net loss of the area and quality of existing native vegetation on 171 hectares of land managed by the City of Maroondah to 2040';
- 'Improved native vegetation quality on an additional 6.7 hectares of land managed by the City of Maroondah by 2025 and a further 13.1 hectares by 2040'.

A total of 307.13 ha of native vegetation occurs on Council-managed land, of which

- 17.70 ha is in Excellent condition
- 40.64 ha is in Good condition
- 68.63 ha is in Fair condition
- 180.16 ha is in Low condition

A fulltime Biodiversity Officer position has been created within the Bushland Team based at the depot. Interaction between the Biodiversity Officer, and Environmental Planners (part of Statutory Planning) and the Strategic Environment Planner based at Realm, is facilitated

through quarterly meetings of the Vegetation Strategy Implementation Group, consultation on reserve management plan updates, and regular contact and advice on vegetation-related statutory planning issues.

11.5 Management of Other Reserves

The management of areas of significant habitat in reserves not managed by the bushland team is being improved through ongoing liaison between the Bushland and Parks teams. Brush cutting is largely replacing the use of herbicide around the base of trees (herbicide still used around bollards), and mower operators are adjusting their mowing practices around tree bases where they have been advised that valuable indigenous plants exist.

11.6 Eucalypt Deaths

The University of Melbourne investigation into potential causes of eucalypt dieback being observed in Maroondah (and elsewhere) was inconclusive.

Internal investigations into potential causes are ongoing, and include seeking advice from experts and other councils, conducting *Phytophthora* pear baiting trials, and experimental tree banding to exclude possums. The results of these investigations will inform the next steps. In the meantime, replacement trees of local provenance are being planted to fill canopy gaps.

11.7 Water Management

The issue of soils and wetlands drying out due to prolonged drought, urbanisation and climate change is acknowledged as a major threat of plant species dying out in Maroondah, in particular those associated with Swampy Woodland and specially adapted to winter-sodden floodplains. Also acknowledged is that stream ecology and stability are affected by unnaturally large fluctuations in flow resulting from stormwater inflows resulting from high levels of impervious surfaces in the catchments.

Council responses include:

- Designing drainage works to avoid unnecessary draining of areas of swampy native vegetation whilst also taking into account other drainage objectives
- Stabilising and correcting gully erosion particularly in Maroondah's north:
 - The retarding basin and ponds have been desilted and creek erosion stabilised in Warranwood Reserve
 - At the time of writing the pond system and creek through Nangathan Way (adjacent to Hochkins Ridge Flora Reserve) were scheduled for desilting and erosion control works
 - The series of ponds through Candlebark Walk have been re-excavated and flows stabilised

- Similar works have been undertaken in Yarrunga, Yanggai Barring, Settlers Orchard, Narr-Maen reserves
- The pondage systems through Ringwood Lake Park, and the dam in Monterey Park have been desilted
- The Range wetlands have been desilted and flow and function restored
- Downstream of the retarding basin at Warranwood Reserve is experiencing erosion issues, however access is highly restricted and attempting repair works is expected to have a significant impact on the vegetation
- Investigating options for diverting stormwater flows that return water to floodplains and wetlands. For example Council is negotiating with Reece Plumbing in Bayswater North to enable stormwater coming off their property to be directed into the nearby Connollys Reserve
- Designing and installing new wetlands to provide habitat and manage stormwater when identified in master plans or similar

The health of trees and other vegetation on the banks of Dandenong Creek near the 'daylighting' project is not being actively monitored. Anecdotally at least their health appears to be good.

The concerns with potential lowering of water tables as a result of creek daylighting, as well as the possibility of installing groundwater monitoring bores along Tarralla Creek will be discussed with Melbourne Water.

11.8 Planting

11.8.1 The Trend Toward Smaller Tree Species

There is no policy to replace larger tree species with smaller species when selecting street trees. Council seeks to plant larger street trees wherever possible but diminishing space in which to plant is limiting opportunities to do so. Mature tree size is matched to the space available - pressures on space include subdivisions leading to more crossovers (this is amplified in cul-de-sac settings), and the need to keep foliage clear of overhead powerlines (Energy Safe Victoria will fine Council if pruning to provide clearance from power lines is deemed inadequate). Options for creating more space to allow for more and larger street trees continue to be explored.

11.8.2 Diversity of Tree Species

Council's planting of trees in Maroondah continues to be dominated by eucalypts. For street tree plantings there is no policy to reduce the proportion of trees in the Myrtle (Myrtaceae) family, however we are looking into diversification of provenance and genus/species to optimise urban forest resilience (eg potential impacts of disease and /or future climate)

For tree planting in parks species from the Myrtle family are predominant, with indigenous species always a component.

11.8.3 Correas

The issue of hybrid versions of Common Correa (*Correa reflexa* variety *reflexa*) displacing the indigenous form and becoming a serious environmental weed is recognised.

The Bushland team has completed a training course on Correa hybridisation, and Correas are not being planted while investigating options to source pure forms.

The two local indigenous plant nurseries, CRISP and Candlebark, have been made aware of the issue, and are only propagating the pure form. Any plantings in Parks in close proximity to bushland reserves use plants sourced from these nurseries

11.8.4 Stormwater Treatment Wetlands

The concerns regarding the use of River Club-rush (*Schoenoplectus tabernaemontani*) in artificial wetlands to remove stormwater pollution, and/or provide wildlife habitat is recognised, and this species is not being planted.

11.8.5 Planting into Forests, Wetlands and Roadsides

The issue of using plant species that are not indigenous to Maroondah (but probably presumed to be) into forests and wetlands in nature reserves during past years is recognised. The Bushland Team strictly limit their planting to local provenance indigenous species. The species and provenance is driven by what the two local indigenous nurseries can supply.

Past practices of planting of trees in too high densities is also recognised.

The spacing of trees in revegetation works is now largely based on filling large gaps in the canopy, with a level of over planting to allow for losses. When planting, the Bushland Team takes into account on mature canopy extent for tree spacing, and eucalypt planting is very limited due to the relatively small size of the revegetation areas. This advice is also passed on to volunteers working with Council.

The risk of unintentionally introducing soil-borne plant diseases into high value bushland reserves is recognised and managed through the use of PhytoClean used to treat boots and equipment for staff working in a bushland reserve.

11.9 Support for Private Biodiversity Stewardship

The value of providing support for private landowners with high value remnant vegetation on their properties to be good stewards of the nature in their care is acknowledged.

How best to do so is the focus of Action 2.3(i) *Evaluate the options for engaging and supporting landholders to increase habitat provision on private land within or next to sites of biological significance, and/or along important habitat corridor routes, in order to support biodiversity and help build a community culture supportive of biodiversity* in the Maroondah Vegetation Strategy 2020-2030.

11.10 Support for Community Involvement with Nature

11.10.1 'Get to Know Your Park' Tours

Guided tours with one of Council's bushland management staff of selected bushland reserves were done in the past, however the covid-19 pandemic ensured a cessation to any plans to do so for the past few years.

Council has recently been participating in the global citizen science events, City Nature Challenge and Great Southern Bioblitz, and as part of doing so running 'nature discovery' activities in Council nature reserves.

Council has also just created and filled a Bushland Revegetation and Community Officer position to support the existing Bushland Revegetation and Community Supervisor. This role is likely to enable more activities to be run that help community discover nature in Council's reserves.

11.10.2 Events for Volunteer Groups

Friends groups and other volunteers are provided with advice and plants, and informal adhoc plant identification. Any training provided is delivered in accordance with Maroondah's broader volunteer guidelines.

Environmental volunteers across Maroondah were brought together in a forum in April 2021 to meet, share understanding of what each were doing, and explore options for networking, cooperating, and working together. This was well-received, but Covid-19 stalled the momentum. Council's intention is to in the near future, endeavour to restore the momentum and connections created.

11.10.3 Citizen Biological Surveys

Council is supporting the engagement of community to get involved in citizen science activities under the banners of two global events - the City Nature Challenge and the Great Southern Bioblitz. These involve encouraging local community members to get out and see what nature they can find, and record their observations on the citizen science platform, iNaturalist. It is hoped that this will help build a broad network of local citizen scientists, who can competently add high quality data to this platform.

11.10.4 Art

When commissioning works of public art, Council has been drawing inspiration from the suite of 'Engagement species' that were identified as part of the habitat connectivity modelling project completed in 2021.

11.11 Social Licence

This document outlines how Council will use the information in this report.

11.12 Monitoring

The importance of monitoring of changes in flora and fauna in helping Council better manage bushland reserves, other habitats, and biodiversity more generally is recognised.

A simple, but repeatable method for annually measuring the extent and condition of natural habitats has been devised by Council's Biodiversity Officer, and will enable tracking of progress towards the targets Council committed to in the Port Phillip and Westernport Regional Catchment Strategy:

- 'No net loss of the area and quality of existing native vegetation on 171 hectares of land managed by the City of Maroondah to 2040'
- 'Improved native vegetation quality on an additional 6.7 hectares of land managed by the City of Maroondah by 2025 and a further 13.1 hectares by 2040'

Methods for monitoring changes at a reserve level are being explored, with aspects of the Eastern Alliance for Greenhouse Action (EAGA) model providing a good basis.

The use of remote sensing data such as LiDAR and computer detection of vegetation from aerial imagery is also being explored.