Recoveryplans@dcceew.gov.au 12/12/25

Field Code Changed

Draft Recovery Plan for Melaleuca wanneroo, Perth WA
Comments from the Urban Bushland Council

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Introduction to the Urban Bushland Council (UBC). We are a peak WA community organisation. UBC is an incorporated, not for profit organisation registered as a charity. We are volunteer led with an active membership of 90 volunteer groups and over 100 individual supporters, all with a common interest in the protection and conservation of urban bushland.

The Urban Bushland Council WA Inc welcomes and commends the Draft National Recovery Plan for Melaleuca sp. wanneroo (G.J. Keighery Ref 16705). As populations of Melaleuca sp wanneroo are associated with shallow limestone shrublands, they are very vulnerable to climate change. These shrublands suffered high mortality rates during Autumn 2024. Low rainfall during winter and two consecutive very long hot summers exacerbated the death of many species. This Recovery Plan has come at the right time. Unless these shallow limestone shrublands are managed to assist the Melaleuca to become more resilient, they face a bleak future. UBC looks forward to viewing the Plan and its implementation as soon as possible. While we applaud the detailed threats to the species in this recovery plan, we are recommending and urging for more action.

WA has many expert scientists and academics studying the impacts of these long dry hot events, and they expect more in the future. A specific example of a more resilient Perth coastal bushland which has found a way to greatly reduce these threats is Craigie Bushland in the City of Joondalup. The City erected a cat, fox and dog proof fence which has provided 56ha for 100 quenda to safely exist and, apparently, turn over up to 2 ton of soil and leaf litter per year per quenda. Astonishing! The canopy cover forms a microclimate which retains moisture. Fires being infrequent to no fires at all. Sufficient leaf litter and decaying wood perpetuates microbial cycling of nutrients and moisture retention, allowing the bushland to better cope with a drying and heating climate. Paths are minimal, allowing large areas of undisturbed bushland for wildlife to exist and aid ecosystem function 24/7.

UBC is familiar with the area where M wanneroo is found. UBC members were invited and guided on a service road to view the remnant Bush Forever Honey Myrtle Limestone shrubland in Wanneroo. This aided volunteer Bushcare groups to gain information to reconstruct their own patches of degraded limestone shrublands and observe how the variety of endemic

limestone plants grew together. Although M wanneroo failed to be observed, we did witness some of the threats this recovery plan highlighted, which were weed incursion, drying edge effects, microclimate alteration along extra wide service tracks, rubbish dumping, dust covered vegetation, and impacts of fire on a drying and heating climate. UBC agrees in terms of actions in the Recovery Plan, to assist in the management towards the mitigation of these threats.

We are very dismayed that this important localized shrub, Melaleuca wanneroo sp, associated with the critically endangered Honey Myrtle Shrubland of Karst limestone, has recently had a dramatic decline. As stated in the recovery plan, some mined areas have lost all their populations. This highlights the real threat of extinction unless the recovery plan is immediately implemented.

As recently as November 2024, well into writing up of the DRAFT recovery plan, and following the HoneyMyrtle Shrubland on karst limestone being Federally listed as Critically Endangered (November 2023), the clearing of 6.5ha of limestone shrubland in Nowergup, City of Wanneroo, was permitted to be mined - because it was deemed to be of "public benefit" and a "**possible** economic and social benefit for the public."

Conditions for rehabilitation were …. "Following completion of mining". This highlights that the majority of M wanneroo populations being lost to mining over the last ten years have occurred with no sign of rehabilitation being commenced or finalised. Rehabilitation time frames need to be formally set. No further clearing permits should be issued until rehabilitation has been accredited with completion by either DBCA or DWER.

To seek out areas for immediate rehabilitation, UBC is requesting that mining sites where M wanneroo has occurred, are inspected by the determined Government authority immediately. Rehabilitation needs to be completed within a certain time. Mining operations need to be ceased if rehabilitation has not occurred to a required level as determined by the designated authority.

UBC sees this Recovery Plan as an invaluable guide for the future, thereby ensuring the prevention of further species being placed on the brink of extinction.

The above satellite image of November 2024 illustrates the area permitted to be cleared in the City of Wanneroo**, 6.495ha of limestone shrubland for limestone extraction**. There is no evidence of rehabilitation, but a further permit to be cleared was issued.

The Recovery Plan will assist miners and land developers in recognising the importance of rehabilitation work, with emphasis on correct seed collection, storage and importantly, the retaining of topsoil for seed bank preservation.

UBC particularly welcomes –

- **Objective 1** - That by 2035 all populations of M wanneroo are documented, secure, healthy, and resilient, including the population size, quality and connectivity of habitat have increased. It would be beneficial to set a target to increase the population size in the vicinity of 5-10% by 2035 within the former range, OR, to develop a realistic and achievable goal.
- **Objective 2** - This recovery plan has many 'to do' items, i.e. mapping, studying fire impacts, genetics, propagation, susceptibility to diebacks, ARD and PSHB.
- **Objective 3** - Knowledge of the species' biology and occurrence to be increased and available to support effective management to maintain and increase populations.

Action 4.1 - To undertake education and community outreach with relevant stakeholders to garner broad support in recovering the species. UBC would like to be considered as a potential partner in public outreach.

UBC strongly advocates for M wanneroo sp to remain in areas where it has always occurred but realise that safer areas maybe required to cultivate the species also.

Recommendation:

- Immediately inform the following organisations and businesses of the critical threat of extinction of M wanneroo and to implement the Recovery Plan, inform –
    - Land managers of the recovery plan for M wanneroo and how they must participate in its recovery.
    - This would Include all Potential Partners (as listed on pg 19). Action Plan 2.1
        - It is most important that land managers or agencies whose names are missing from the list, i.e. MRWA, Water Corp, and Western Power, are informed. To this day, the above agencies have caused major concerns to UBC member groups because of their clearing of sites. LGA's have not been informed of what is to be cleared; no discussion has occurred informing the Bushcare volunteer groups, and furthermore, no information regarding if and when they intend rehabilitation or weed recruitment prevention. Often the volunteer bushcare groups and LGAs are more knowledgeable of what is found at these sites and if they are under threat or reduced to very small populations. Bushcare volunteer groups often have decades of knowledge.

- Those responsible for clearing permit applications (DWER).

Vision 4.1

- There appears to be no time frame for the continued reviewing of the extent of the current population of M wanneroo. Once the DRAFT Recovery Plan is accepted by DCCEEW, it would be an expectation that land manager/s undertake annual reporting. This would allow for education and easy identification of the remnant populations via photos for those who have no prior experience.
- If populations and conditions are found to be deteriorating, URGENT measures need to be implemented.
- Education and Community outreach must ensure locations of the species are well-known with maps publicly available, and easy to locate, especially for environmental consultants and decision makers.

Strategies and Recovery Actions - 4.4

- Because of changing fire regimes and a heating and drying climate, urgent and immediate action to propagate and plant out is required.

a. **Action 1.3 -** Ex-situ seed collection - ensure the collection of seed from all known populations can commence immediately (or as soon as possible).
b. **Action 1.4 - Translocation**:
   I. Immediate propagation efforts made with the aim of returning M wanneroo to limestone shrublands. To have long-term success it is imperative to plant in the original distribution area having the most ideal conditions. It would be wise to choose areas with deeper soil pockets or irrigation in summer for developed land.
      - Consider tube stock being offered to interested local UBC members to grow and care for in their own gardens whilst revegetation sites are found and prepared for planting.
      - The Northern Branch of the Wildflower Society is developing a purpose-built nursery in the City of Wanneroo. Offers can be made to similar organisations across the metropolitan area who have expertise and knowledge in propagating local plants.
   II. DBCA review all Mining Restoration plans for immediate implementation.
   III. Revegetation (by planting) should include Watering from November to May for the first year minimum, followed by continued planting the following years, if unsuccessful.

IV. Sites for revegetation where the original distribution areas existed, need to be prioritized, including -

- mine sites, including areas used for storage of equipment, sheds, etc;
- areas of public open space in private and public land developments;
- M wanneroo species incorporated into landscaping where it could be watered over summer such as LG areas or private gardens.

c. Action 2.1 - Protect the species and its habitat from land clearing, degradation or fragmentation -

Buffers

- For past and present known populations to be at a minimum the same distance as for the Honey Myrtle Shrubland TEC on karst limestone as per State and Federal guidelines Nov 2023.

d. **Action 2.3 - Fencing** –

Fencing is imperative to give the bushland a greater chance of survival.

Fencing can significantly reduce:

- Fire ignition;
- Trampling from walkers, runners, bike and vehicle incursions;
- Biosecurity risk;
- Rubbish dumping;
- Cat and fox exclusion
- As well as for control of Goats, rabbits as documented in this plan.

- When communicating the recovery plan with land managers and developers, ensure and oversee miners to immediately fence off areas which they have no permission to have access to, ie areas which abut their mining site.
- Install ringlock fencing. This type of fencing is the most cost-effective measure to keep foxes, cats, dogs, and the public from accessing the protection zone. As has been proven from Craigie Bushland's success, the area becomes more resilient, thereby maximizing the ability for wildlife to return; habitats will return, ensuring maximum protection for eco-system warriors.
- Fenced areas should include a **buffer** to prevent further deterioration from fence installation, edge effect of weeds, erosion and change in microclimate, ie drying.

Signage - Recommended to be installed along all fences accessible by the public, stating why fence/s have been installed, including information as listed -

- **"Protected Area, Biosecurity Risk;**
- Phone numbers made available to public with information of ownership, or to gain permission to enter;
- To allow the public to alert suspicious activity/entry;
- Any permission given for entry, etc, needs to be recorded with details, ie name, reason, GPS points, etc.

Action 2.3 Active Management Plans -

- **Agree with the Recovery Plan as outlined.**
- **Ensure Management Plans** are in place for all populations of invasive pests and weed, employing biological control solutions where appropriate. Weed control programs for miners, private land holders, and public land should include at least:
- All points outlined should be implemented within mine sites and land development not just public land. All land development sites (commercial and urban) are recommended as part of their clearing conditions to keep as much of the remnant bushland in their developments and to incorporate M wanneroo into their landscaping and public open space.
- Herbicide spraying with DBCA recommended chemical composition in **July and October** to remove another year's seed burden before seed set. Delays in herbicide spraying will require **manual weed seed removal.** A summer spray may be required if summer weeds recruit.
- Use experienced herbicide contractors who are familiar with plants growing at all stages. Those that successfully demonstrate they have the knowledge to use technology to identify native plants and weeds for these shrublands. Consider documentation, ie photos of weed condition at site prior to commencing weed management in July and October. Herbicide contractors may be able to assist in reporting of M wanneroo winter germination.

Action 2.2 - Implement a Fire Management Plan –

Consider as a High priority - after communicating the Recovery Plan this should be in conjunction with

- Fire bans to be adhered to without any exemptions for vehicle movement in identified mapped M wanneroo and their buffers on high fire danger days.
- A minimum holding of water on land development sites such as (500/1000L) on carts or trucks for early fire suppression until back up fire crew arrive.

- Smoke detection devices along fencelines so land managers and emergency services are quickly notified.
- Follow EPA advice on prescribed burns for Environmentally Sensitive Areas. https://www.wa.gov.au/system/files/2023-05/A-guide-to-burning-under-the-native-vegetation-clearing-provisions.pdf In these circumstances, local knowledge is important in the wake of a drying, hotter climate.
- Fully support documenting fire occurrence - time, reason, recovery related to seasons, weed burden, impact on good soil microbes.
- Cautious use of any type of burns and only follow EPA burning guidelines in light of stressed bushland from seasons of low rainfall and heat waves. Alternatively take advice from EPA's "A Guide to Burning Under the State Government Clearing Regulation" "Cool Burns". Studies by Murdoch University, University of WA and Australian Living Atlas focusing on the collapse of our bushland, trees and SW forests Autumn 2024 indicate that previous fires was one of the 3 underlying reasons for bushland collapse.

Action 2.6 Hydrology

- UBC strongly supports the plan to reduce further groundwater depletion via extraction within the species range area. This is a known threat as investigated by Murdoch University research
- Points to consider include:
  - Ground water levels for individual sites to be monitored and reported on a timely basis deemed sufficient for the ground water threats.
  - Regular Annual reporting or earlier if ground water level are at a concerning level.
  - A plan for prevention of further reduction of ground water levels, ie near by residents, mine sites, urban and commercial development who have access to groundwater to be moved onto scheme water.

1. **Consider Soil microbe restoration** plans for bushland resilience in the Recovery Plan.
   - The latest study by Murdoch University by Dr Joe Fontaine and Anna Hopkins on the effect of different weed management tools on mycorrhizal fungi.
   - Prof Giles Hardy investigated the impact of artificial fertilizers on mycorrhizal fungi and Marri canker. His research should determine buffers for no artificial fertilizer. This would mainly apply to urban and commercial land developments rather than mining leases.

- Prof Hardy also studied the displacement of beneficial local soil microbes by weedy fungus. This is important to building resilience for remnants and being on top of weed management, especially along the edges. If we are to make our natural areas more resilient, we need to nurture the right soil microbes, so water and micronutrients are shared among native plants as required.
- Native wildlife are ecosystem engineers and as described in the predator fenced Craigie Bushland, are a significant part of the solution to bushland resilience in a drying/heating climate. Fencing with ringlock fencing will help reduce predators of quenda who are the last great ecosystem engineers. Future water troughs maybe required to sustain wildlife engineers which include quenda, birds and bobtails.

Conclusion:
The evidence is clear from the documentation in this recovery plan that to cease future extinctions and implementing costly recovery plans for species in a changing climate, action needs to be taken now at all levels of Government.

UBC also recommends outside of this Recovery Plan, but because of information garnered from the Recovery Plan, which revealed the rapid decline of a species associated with critically endangered vegetation complexes; that future mining and land development clearing approvals are required to set strict rehabilitation timeframes and to cease ongoing and further clearing of the M wanneroo and associated other species until successful rehabilitation has occurred to the value of further requests for clearing.,

UBC understand there is a high and urgent prioritization for:

- communicating the Recovery Plan with known land managers and developers, and at the same time -
- communicate the need for fencing and fire management plans and
- ensure propagation is seen as a high priority.

We are very keen that UBC can be kept informed of the achievements of the Recovery Plan annually.

We would like to thank you for including UBC in this Recovery Plan. It is an excellent recovery plan which illustrates urgent action is needed to save this species.

Regards

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Chairperson

Urban Bushland Council WA Inc

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