Committee Secretary
Senate Standing Committee on Environment and Communications.

Reference:
The Effectiveness of threatened species and ecological communities protection in Australia

Summary

The protection of threatened species and ecological communities require that attention should be given to the importance of those nurseries which supply indigenous plants of local provenance. It will be contended that this has so far not been adequately recognised in Commonwealth, State and Local Government native vegetation management plans. Primary sources of supply of such plants are most often left to volunteer supported, not for profit organisations, whose efforts reflect high levels of dedication and inadequate recognition as to their value and to the financial burden which they carry. The importance of any program devised at whatever level of government, and as may result from the recommendations of the Senate Inquiry to protect threatened species and ecological communities, should not overlook the risk to success through inattention to ensuring provision is made for the supply of high quality indigenous plants of local provenance.

Background

I am the President of Candlebark Community Nursery located at Mooroolbark a suburb of Melbourne. The Nursery is an incorporated, not for profit organisation, volunteer supported, with one fulltime staff member responsible for plant production. Its costs are met from plant sales and it receives no other direct financial support. The nursery as described is rather typical of those nurseries whose focus is upon protection of the environment through provision of local indigenous plants.

The nursery collects seed in the bush and these are in turn returned to the bush as seedlings. We produce around 90,000 seedlings each year and our main customers are two local government organisations and Melbourne Water. We provide an advisory service to members of the community interested in planting native local plants. We usually manage to break even financially each year.

Few, if any nurseries with such a focus as described above, are established for profit as dedicated commercial undertakings, primarily because the cost associated with such activities as seed collection across so many different plant species from grasses to herbs, understory shrubs, and over-story trees, including wet land species; and the subsequent specialised requirements to effect germination of such a diverse plant population, make the undertaking

unattractive. Risks are much higher in comparison to the growing of exotic plants. There is also the requirement to meet timelines of Autumn and early spring to enable successful plantings. Plantings occur not on a single species basis as in revegetation of a logging coup, but as a composite to permit all endemic species to grow together so as to reflect and sustain the biodiversity of the site.

To make the above point another way our nursery propagated around 109 different species last year and we maintain a seedbank containing around 323 different seed types. Some seeds require cold conditions to stimulate germination, others require abrasion, smoking, immersion in boiling water, or long periods of drought. Growing timelines to optimum planting points also vary considerably by as much as twelve months to two months. What is grown is based upon the purpose for planting (restoration, weed management, revegetation, strengthening existing plant communities, biodiversity enhancement, carbon farming) and location of the sites where the seedlings are to be planted. Generally the planting purpose is to reflect the diversity of extant vegetation in the area. Our activity should be distinguished from those nurseries which grow Australian Native plants as our activity is focused upon indigenous plants of local provenance only.

An example of species in a specific bio-region which our plants aim to support is at ATTACHMENT A

<u>The importance of indigenous plant nurseries of local provenance to the effectiveness of threatened species and ecological communities' protection</u>.

In relation to the Terms of Reference for the Inquiry and Report the remarks which follow will primarily address the first four as a whole.

(a) management of key threats to listed species and ecological communities;
(b) development and implementation of recovery plans;
(c) management of critical habitat across all land tenures;
(d) regulatory and funding arrangements at all levels of government;

From the general introductory comments it is contended that nurseries such as the one I represent are an integral part of the environment and biodiversity activities devised by various Commonwealth, State and Local Government organisations and relevant Statutory Authorities which relate to the

(a) management of key threats to listed species and ecological communities;
(b) development and implementation of recovery plans;
(c) management of critical habitat across all land tenures;

To illustrate this claim a selection of several excerpts are provided below sourced from Commonwealth and Victorian State Government programs and plans and from Regional and Local organisations in Victoria.
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1. The Commonwealth Government through its **Biodiversity Fund** has sought applications for action on a wide variety of Australian landscapes and across a diverse range of vegetation types. In particular, the Government indicated it is interested in project activities including, but not limited to:

• biodiverse plantings of mixed species, that establish and re-connect well functioning native ecosystems

• revegetation to improve connections between remnant native vegetation across public and private lands, particularly in the fragmented rural, coastal and peri-urban landscapes of south eastern and south western Australia and Tasmania

• establishing and restoring native wetland and waterway habitats, particularly on already cleared lands or lands predominantly occupied by non-native vegetation

• building capacity of individuals and organisations to expand the extent of native habitats in fragmented landscapes

• facilitating partnerships to deliver large scale biodiverse plantings or other biodiverse carbon storage projects

• developing and establishing specific enabling technologies and systems such as the creation of reliable sources of native seed and seedling stock for large scale plantings and new technologies required for broad acre biodiverse plantings and management.

Programs and projects which may be supported under the Fund clearly will depend upon a supply of seedlings of local provenance to ensure their success

2. The Victorian State Government Native Vegetation Management Framework for Action proposed the following

VICTORIA'S NATIVE VEGETATION MANAGEMENT GOALS

"It is not just how much we have but how good it is"

The need to both better manage and increase the cover of native vegetation in Victoria is beyond question. In setting our sustainability goals for native vegetation we recognise that we are responsible for a diverse and dynamic asset that will continue to support a variety of uses on both public and private land. We need to strike a balance between our efforts to achieve the following:

• active improvement of the quality of existing native vegetation;
• avoidance or minimisation of further permanent losses through clearing;
• strategic increase in the cover of native vegetation through biodiverse revegetation; and
• the flexibility that is required to support landholders as they move towards more sustainable land use.

Accordingly, our goal must be expressed in terms of the sum of all these individual actions for native vegetation (i.e. the net outcome) that we aim to achieve as part of the broader goal of ecologically sustainable development.

PRIMARY GOAL

Our primary goal for native vegetation management in Victoria is to achieve:
A reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain

ADDITIONAL OUTCOMES ACHIEVED BY PURSUING OUR PRIMARY GOAL

Reversing the long-term decline in the extent and quality of native vegetation in accordance with the principles and approaches outlined in this Framework will make a significant contribution to achieving the following outcomes:

Biodiversity
• The ecological processes and the biodiversity dependent on terrestrial, freshwater and marine environments are maintained and, where necessary, restored.

• The present diversity of species and ecological communities and their viability is maintained and improved across each bioregion.

• There is no further preventable decline in the viability of any rare species or of any rare ecological community.

• There is an increase of the viability of threatened species and in the extent and quality of threatened ecological communities

Land and Water Quality

• Improvements in land and water quality due to the restoration and protection of ecological processes within catchments.

• Reduction in the impact of secondary salinity on the State's land and water resources by increasing vegetation cover and reducing groundwater recharge.

• Improvements in water quality due to the interception of nutrients in surface runoff.

Climate Change

• Enhanced amelioration of the impact of climate change by significantly increasing
Victoria's carbon sinks through revegetation and regeneration.

• Increased carbon sinks and provision of a range of other benefits through the development and expansion of private forestry in a way that complements native vegetation retention.

These goals for native vegetation in Victoria can best be achieved by having a "whole of landscape" perspective, encompassing all tenures, and are most usefully informed by catchment-wide and bioregion-wide understandings of native vegetation processes and values. The approaches to meeting these goals outlined in this Framework also recognise the primary importance of existing native vegetation, particularly in terms of irreplaceable natural assets and cost-effective delivery of ecosystem services.

We also need to ensure that these perspectives are part of the complementary policies that drive our salinity, water quality, biodiversity, land protection and greenhouse programs.

The principles and approaches outlined in this Framework are applicable from the onground level upwards. Only by ensuring that decisions about the protection and improvement of individual stands of native vegetation deliver an appropriate contribution to our goals, will the net outcomes be demonstrably achieved. The Framework sets out the broad approach and specifies minimum standards, recognising that as native vegetation values and issues vary across the State, so too will the regional priorities and responses identified by this broad approach. Regional Native Vegetation Plans will outline these priorities and responses in detail, setting targets and extending the minimum standards as required.

Programs and projects which may be supported under the Victorian State Government Native Vegetation Management Framework clearly will depend upon a supply of seedlings of local provenance to ensure their success

3. <u>The Native Vegetation Plan for the Port Philip and Westernport Catchment</u> area in Victoria refers to

The challenge in the Port Phillip region is to incorporate sustainability into the use of natural resources by the growing urban population and primary industries in

the region. In regards to native vegetation, the Draft Port Phillip and Westernport Native Vegetation Plan sets out five goals:

1. To maintain the extent and quality of indigenous vegetation in the region at 2001, leading to a net gain in the future.

2. To ensure areas of priority vegetation in the region are maintained, enhanced and protected in the long term.

3. To achieve comprehensive and representative cover of indigenous vegetation across the region.

4. To enhance the connectivity of native vegetation across the region to maintain ecological processes.

5. To protect land, air and water resources through strategic revegetation.

In achieving these goals, issues that need to be addressed include:

• developing a strategic approach given the number of organisations and groups involved in natural resource management issues in the region;

• urban growth and appropriate land use planning;

• threats to remnant vegetation including weed invasion, firewood collection, altered fire regimes, edge effects, human impacts, clearing and dryland salinity in some areas;

• pest animal management (rabbits, foxes, feral cats and wild dogs);

• pest plant management – priority agricultural weeds such as serrated tussock, Chilean needle grass, ragwort, Paterson's curse and a large range of environmental weeds;

• sustainable agriculture, in particular, land and water management; and

• motivation, engagement and support of landholders, landcare groups and friends groups.

Programs and projects which may be supported under the Native Vegetation Plan for the Port Philip and Westernport Catchment clearly will depend upon a supply of seedlings of local provenance to ensure their success

4. The **YARRA RANGES COUNCIL FLORA & FAUNA MANAGEMENT STRATEGY 2010** provides

STRATEGY GOALS, OBJECTIVES & IMPLEMENTATION

Overview

5.1 Goal 1: To protect populations and habitats of existing flora and fauna

5.2 Goal 2: To enhance habitat and ecosystem value of flora & fauna assets

5.3 Goal 3: To proactively restore and enhance flora & fauna habitats

5.4 Goal 4: To adequately offset lost vegetation to achieve Net Gain of habitat value in the Shire.

5.5 Goal 5: To further develop knowledge about flora & fauna assets in the Yarra Ranges

5.6 Goal 6: To foster a culture of environmental stewardship in the Yarra Ranges

5.7: Goal 7: To influence flora & fauna management outside Yarra Ranges Council control

Programs and projects which may be supported under the YARRA RANGES COUNCIL FLORA & FAUNA MANAGEMENT STRATEGY 2010 **clearly will depend upon a supply of seedlings of local provenance to ensure their success**

Conclusion

Assuming it is accepted that the supply of indigenous plants of local provenance underpin the success of the above selected programs and projects and their underlying goals and strategies it also will be recognised that such plants are of utmost importance to any conclusions and recommendations reached by the Senate Committee in respect to the first three Terms of Reference.
Attention to funding arrangements for the support and supply of seed and seedlings at all levels of government relates the fourth Terms of Reference

The time and effort and associated cost burden born by nurseries such as has been described in this submission is insufficiently recognised in the various plans referred to above. There is a real risk that without more recognition in terms of dedicated financial support or access to a supplementary funding source for purposes of growing indigenous plants of local provenance that the existing plans described above, and any recommendations from the Inquiry will be placed in some degree of jeopardy.

Current available Grants are highly competitive and are biased towards projects and programs which directly support remedial action for threatened species and protection of ecological communities and such related activities as have been described in the excerpts above.

Under its Terms of Reference the Senate Committee has an opportunity to address the issue of the under-recognition of the importance of ensuring viable supplies of indigenous plants of local provenance and in the interest of all parties involved in vegetation and habitat management, to consider how nurseries which support such activities may be better supported.

Barry Rowe
President Candlebark Community Nursery Inc

ATTACHMENT A

Ecological Vegetation Class bioregion benchmark

EVC/Bioregion Benchmark for Vegetation Quality Assessment Gippsland Plain bioregion

EVC 22: Grassy Dry Forest

Description:
Occurs on a variety of gradients and altitudes and on a range of geologies. The overstorey is dominated by a low to medium height forest of eucalypts to 20 m tall, sometimes resembling an open woodland with a secondary, smaller tree layer including a number of Acacia species. The understorey usually consists of a sparse shrub layer of medium height. Grassy Dry Forest is characterised by a ground layer dominated by a high diversity of drought-tolerant grasses and herbs, often including a suite of fern species.

Large trees:

Species DBH(cm) #/ha Eucalyptus spp. 60 cm 20 / ha

Tree Canopy Cover:

%cover Character Species Common Name
30% Eucalyptus melliodora Yellow Box
Eucalyptus macrorhyncha Red Stringybark
Eucalyptus polyanthemos Red Box

Understorey:

Life form #Spp %Cover LF code
Immature Canopy Tree 5% IT
Understorey Tree or Large Shrub 2 10% T
Medium Shrub 9 20% MS
Small Shrub 4 5% SS
Prostrate Shrub 2 1% PS
Large Herb 2 5% LH
Medium Herb 8 15% MH
Small or Prostrate Herb 2 5% SH
Large Tufted Graminoid 3 5% LTG
Medium to Small Tufted Graminoid 11 30% MTG
Medium to Tiny Non-tufted Graminoid 2 10% MNG
Scrambler or Climber 3 5% SC
Bryophytes/Lichens na 10% BL
Soil Crust na 10% S/C
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