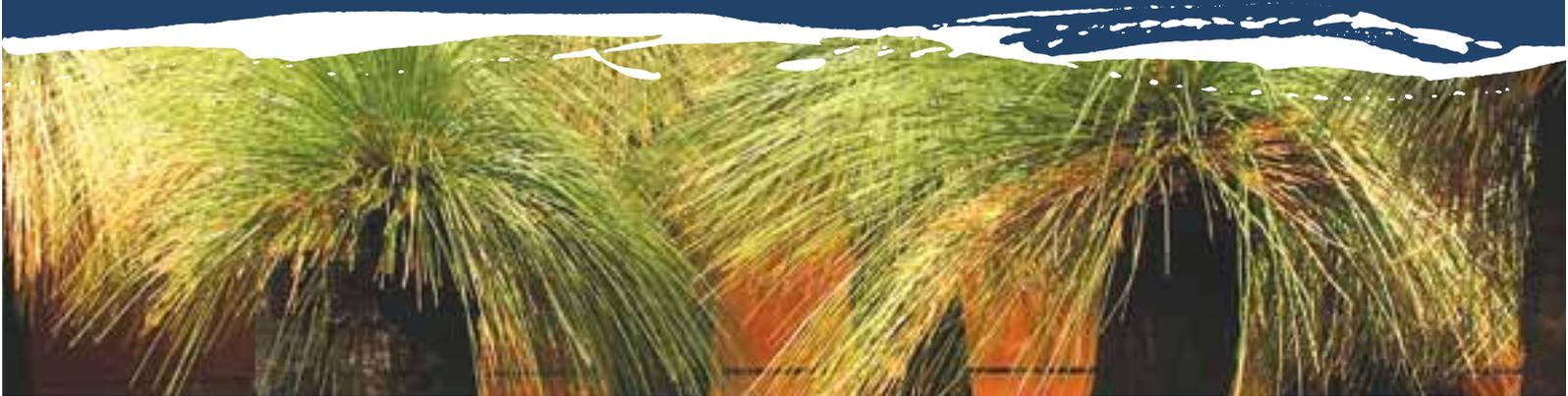


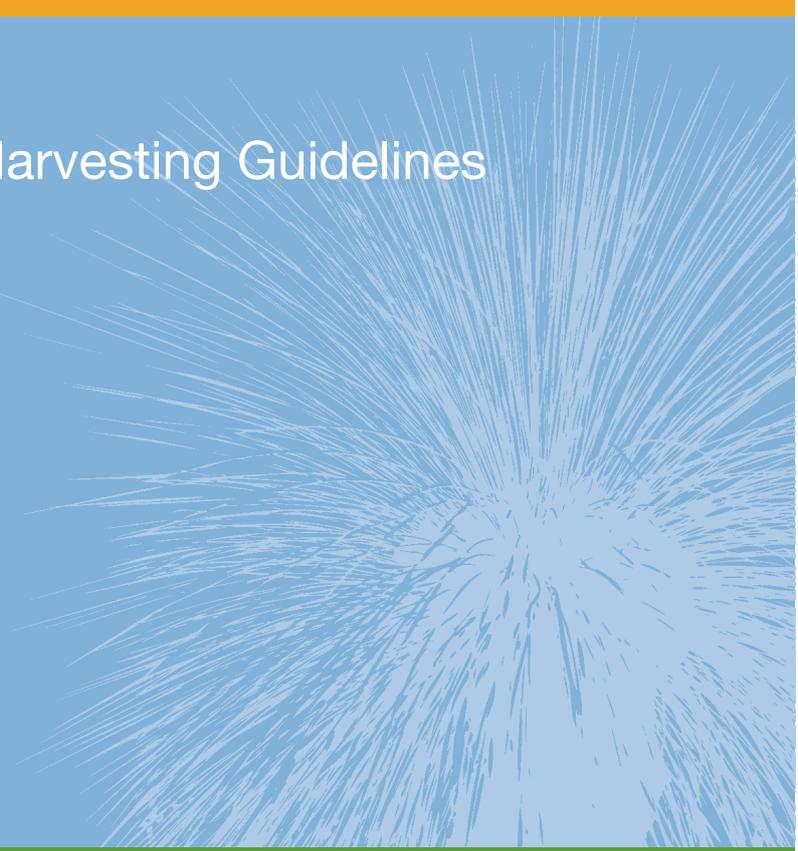


Australian Government
**Department of the Environment
and Water Resources**

ENVIRONMENT PROTECTION AND
BIODIVERSITY CONSERVATION ACT 1999



National Grasstree Harvesting Guidelines





WA Department of Environment and Conservation

These guidelines have been developed by the Grasstree Focus Group and endorsed by the National Flora Management Network. This network is made up of representatives from each State and Territory and is focussed on the sustainable management and regulation of native flora harvesting in Australia. The network has been facilitated and supported by the Australian Government Department of the Environment and Water Resources.

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1. Objectives

The *National Grasstree Harvesting Guidelines* have been developed to help facilitate a consistent approach when assessing the sustainability of grasstree harvesting. The guidelines will assist all those involved in grasstree harvesting in considering issues such as population level and density, demography, recruitment, threats, level and method of harvest, monitoring, compliance and market demand.

These guidelines will:

- facilitate the sustainable harvesting of grasstrees
- promote best practices for grasstree harvesting
- facilitate consistency between jurisdictions.

2. General statement

Commercial harvesting of grasstrees (*Xanthorrhoea* sp.) from the wild is undertaken in Queensland, New South Wales, Western Australia and to a lesser extent, Tasmania and Victoria. The species harvested are listed in Table 1. Harvesting is undertaken for both the domestic and export markets. Harvesting is regulated by State/Territory legislation and State/Territory-based Flora Management Plans approved by the Australian Government Department of the Environment and Water Resources (which has responsibility for export regulation).

The following guidelines cover best practice for regulating and managing grasstree harvesting to meet the sustainability requirements of the *Environment Protection and Biodiversity Conservation Act 1999* Part 13A. They are designed to foster sustainable management of grasstree species, and to facilitate the development of consistent practices in relation to grasstree harvesting across jurisdictions (including those where grasstree harvesting regulations and procedures may be required in the future).

3. Use of the guidelines

Considerations

The principles and guidelines given below take into account that:

- While different States/Territories have different processes for regulating harvesting of wild flora, including grasstrees, the objectives and approaches should be consistent and complementary.
- In many circumstances, grasstree harvesting is a secondary activity that is associated with other land uses (such as urban development or provision of infrastructure).
- There needs to be some flexibility in regulations and approaches, to allow for changing circumstances relevant to grasstree harvesting, conservation, management and market influences.

Terminology

Grasstree: A trunked or trunkless species of *Xanthorrhoea* as listed below.

Salvage harvest: The commercial or non-commercial harvest of plants that will be destroyed for reasons other than the harvest. Salvage harvest should be restricted to land-clearing activities that have been given approval under the State or Territory legislation. Examples include vegetation clearing associated with mining, infrastructure or urban or industrial development.

State authority: State or Territory government agency or agencies primarily responsible for regulating management and harvest of grasstrees.

Land manager: Owner or manager of private or public land.

Products harvested: A range of products is sourced from wild-harvested grasstrees. Guidelines given in this document are appropriate for live plants, foliage, seeds and flower spikes – which are the four main products currently harvested legally under licence, permit or other authority. Other products that are harvested from some species include the use of trunks from dead trees for wood-turning, and resin for making natural varnishes.

High risk harvesting activities: Large scale operations or activities that may significantly impact on the survivability or reproductive potential of plants. High risk activities also include the harvest of whole plants (whether salvage or non-salvage), harvest of large areas of unspent flower spikes and the harvest of large volumes of foliage (e.g. more than 500,000 stems per year).

Lower risk harvesting activities: Small scale operations or activities less likely to significantly impact on the survivability or reproductive potential of the plants – such as seed harvest where flower spikes are not removed from the plant, and lower volume foliage harvesting (e.g. less than 500,000 stems per year).

Table 1 Species harvested

Species	State	Licensed products
<i>Xanthorrhoea australis</i>	Victoria, New South Wales	Whole plants, foliage, dead stems, resin, flowers, seed
<i>Xanthorrhoea australis</i>	Tasmania	Whole plants, foliage, dead stems
<i>Xanthorrhoea drummondii</i>	Western Australia	Seed
<i>Xanthorrhoea fulva</i>	Queensland	Whole plant, foliage, seed
<i>Xanthorrhoea glauca</i>	Queensland	Whole plant, foliage, seed
<i>Xanthorrhoea gracilis</i>	Western Australia	Whole plant, foliage, seed
<i>Xanthorrhoea johnsonii</i>	Queensland, New South Wales	Whole plant, foliage, seed
<i>Xanthorrhoea latifolia</i>	Queensland	Whole plant, foliage, seed
<i>Xanthorrhoea preissii</i>	Western Australia	Whole plant, foliage, seed, dead stems
<i>Xanthorrhoea semiplana</i>	South Australia	resin
<i>Xanthorrhoea macronema</i>	New South Wales	Whole plant
<i>Xanthorrhoea</i> spp.	New South Wales	Whole plant, cut flower, foliage

Hygiene and quarantine

- The risk of introducing pests and diseases into an area associated with grasstree harvesting must be assessed and control measures implemented if there is a risk that grasstree harvesting could introduce or spread threatening pests and diseases into an area. Grasstree harvesting should not be permitted if the risk or consequences of introduction or spread is unacceptable.
- The quarantine requirements for domestic and international movement of whole plants must be followed. Attention should be paid to phytosanitary requirements for pests and diseases and movement of whole plants with soil. The potential for imposition of further conditions (especially if current requirements are not followed) should also be considered.

4. Harvesting guidelines

Grasstree harvesting, other than in salvage situations, is to be undertaken in an ecologically sustainable manner, ensuring the maintenance of populations of grasstrees at local and broader landscape scales. The risk assessment model endorsed by the National Flora Management Network will be used (in part) to determine the sustainability of a harvest operation.

General guidelines

- All grasstree harvesting should involve an assessment to determine sustainable levels of harvest. The assessment should include abundance, extent, size classes and conservation status of grasstrees, in relation to the manner or product of harvesting and their ability to regenerate after harvesting.
- An assessment of the conservation status, identification of other conservation values and sensitivity of the harvest site/s and appropriate management prescription should be undertaken before any harvesting commences.
- Harvest of whole grasstrees should be principally undertaken as salvage. Non-salvage harvest of whole plants is not generally considered to be a sustainable practice unless done at an extremely low level of intensity and relative to the regeneration capacity of the population.
- When harvesting leaves, seed, flower spikes and resin from grasstrees, no unnecessary damage to the grasstree itself, in particular the crown, should occur.
- Grasstree harvesting should minimise damage to non-target plants and other associated vegetation.

- Grasstree harvesting should not be permitted if it will have unacceptable risks or consequences in maintaining natural ecosystem values. The exception is harvesting whole plants for salvage if there is to be permanent conversion of the land from native vegetation.
- Grasstrees harvested as whole plants should be harvested, transported and stored to maximise their quality and chance of survival on the pathway to the end consumer.
- Grasstree harvesting operations should be managed and monitored by the land manager in conjunction with the State/Territory authority. It is the responsibility of grasstree harvesters, generally through the land manager, to familiarise themselves with State authority regulations and prescriptions applying to any grasstree harvesting operation (e.g. location of boundaries of harvesting areas).
- No harvesting is to occur in any area managed primarily for conservation, including any World Heritage Area, National Park, or other area set aside for conservation by State or Australian Government authorities unless permitted or authorised under a current management plan, agreement or other consent and undertaken on a sustainable basis.

Note: It may be that some of the guidelines are not relevant to all sites where grasstree harvesting is permitted (e.g. sustainability requirements for salvage harvesting). However, the best practice standards appropriate to that activity outlined in these guidelines should still be met.



5. Product specific considerations

Decisions regarding the regulation and management of grasstree harvesting must be based on sound scientific data. Decision-making may also need to consider social and economic factors.

While it is not possible to set absolute numbers or percentages, the following figures should guide harvested amounts. This assessment approach follows a consistent model, based on the *National Guidelines on the Sustainable Harvest of Australian Native Flora*, focusing on population size and density, evidence of recruitment, the proposed level of harvest and the age classes targeted.

Foliage

A maximum of 25% of the foliage from any one grasstree plant can be harvested in any one season (i.e. 12 months).

- Foliage should not be re-harvested until the crown has sufficiently regrown, such that the previously harvested area is hidden below the 'skirt' of the plant. The time for this to occur will vary depending on species/locations.
- Foliage should be taken from the middle section of the growing mass – avoiding the crown and the lower 'skirt'.
- Harvesting should not occur within the first 24 months following fire or where full recovery of the foliage has not occurred for any other reason.
- Harvest from healthy plants, preferably from areas of higher population density.
- Harvest with clean hand held secateurs, knives or other implements, and clean these implements before moving to another area.
- Ensure foliage is marketable prior to harvesting. Foliage that has been cut and then rejected due to poor quality should be discarded into the immediate area. This material is included in the maximum harvest amount.
- Harvesters wishing to harvest more frequently must provide scientific data to demonstrate sustainability of more frequent harvest.

Flower spikes

A maximum harvest quota for flower spikes of grasstrees should be no greater than 20% of the total population of flowering plants in any one season (i.e. 12 months).

- Grasstree spikes contain the entire reproductive material for the plant for at least one year and are an important source of food for numerous wildlife species. Where possible, spikes should be harvested after the seeds have been shed.
- No more than one flower spike should be collected from plants with multiple flower spikes.

Seed

Wild harvesting of grasstree seed should not exceed 20% of the seeds (or seeding spikes) the total available flowers in the population at the site in any one season (i.e. 12 months).

- The proportion of seeding spikes available for harvest should take into account the proportion of flowering spikes that may already have been removed from the population prior to seed set. The total number of spikes removed in any one season, during flowering or seeding should not exceed 20%.
- Where possible, flower spikes should not be removed from the plants in order to access the seeds.
- In order to maximise genetic diversity in seed collections, harvest of seeds should be undertaken from plants that are distributed across the population.

Whole plant salvage harvesting

Grasstrees may be salvage harvested if the grasstrees are to be destroyed by approved development on the site where the plant population is situated. Such operations may comprise conversion of forests to other land uses (e.g. infrastructure, urban and industrial development).

- Extraction of grasstrees should not be the catalyst for clearing of vegetation.
- Grasstree harvesting must not occur prior to a final land use decision being confirmed and the approval obtained through alternative land use planning processes.

- Harvesters should ensure plants offered for sale are of good quality, have been stabilized prior to on-sale and are likely to survive if planted and cared for correctly by the purchaser. This may involve testing the soil at salvage sites for soil pathogens.

Whole plant non-salvage harvesting

In circumstances where non-salvage whole plant harvest is allowed, the harvest should be sustainable according to the following guidelines:

- The sustainability of harvesting whole plants from the wild is to be assessed at the local population level (e.g. property or forest block scale). The assessment must focus on population size and density (including size class distribution), evidence of recruitment and the proposed level of harvest, considering age classes to be targeted.
- Harvesters must be able to demonstrate that there is no significant impact on population level, density, recruitment, and volume of soil loss.
- Consideration must be given to long-term management of the site and mechanisms for ensuring harvest licence conditions can be enforced in perpetuity.
- Non-salvage harvest of grasstrees may only occur where the population size and density at the harvest site meets threshold levels as set by the State appropriate to the species targeted for harvest.
- No more than 1% of the plant population in the harvest area should be harvested from the population in any harvest period. This level may be further reduced depending on the age class of the targeted plants. The lag time between re-harvesting the area should consider the approximate age of the plants being harvested (by considering the size class) and the re-establishment period.

Non-salvage harvest of whole plants requires special licensing requirements, specific conditions, monitoring of harvest and auditing of licence compliance and, if necessary, enforcement. Such harvesting is not permitted in some jurisdictions.

Non-salvage harvest may only be deemed suitable where harvesters can demonstrate ecological sustainability of the harvesting operation within the landscape (considering the plant population, associated wildlife and the broader ecosystem). The grasstree population must be maintained at a local and landscape level, and must be able to regenerate adequately on the site.

Areas may be established and managed for commercial production of grasstrees (through natural regeneration, augmentation planting or other site treatments) in areas of native vegetation, plantation or previously cleared land. This is only the case if such activities comply with appropriate policies and regulations, and consideration is given to biodiversity and other environmental implications.

Whole grasstrees should be removed in a manner that minimises disturbance to non-target plants and the associated ecosystem. Where possible (i.e. for smaller specimens) removal should be done manually.

To minimise soil disturbance and overall soil loss, minimal soil is to be removed from the harvest site. However, plant removal must be done in a way that minimises damage or desiccation of the fine radial roots.

Whole grasstree removal results in associated soil removal from the site, which in some situations can be significant. Sustainable site management through the setting of harvest volume, should also include the issue of soil removal and general soil disturbance.

Grasstrees should not be harvested from areas infested with *Phytophthora* or other diseases as this will compromise their subsequent survival, and risk infestation at the planting site. The spread of pathogens such as *Phytophthora* must be managed according to appropriate hygiene standards (refer to page 8). Machinery used in harvest areas should be cleaned down prior to entry to prevent *Phytophthora* or other disease or weed infestation.

Consideration should be given to the impacts of the removal of grass trees on other species in particular threatened species. Where necessary, harvest levels can be reduced to minimise impacts.

Harvesters should ensure plants offered for sale are of a good quality, have been stabilized prior to on-sale, and are likely to survive if planted and cared for correctly by the purchaser.

Grasstree harvesting should be undertaken or supervised by the property owners, to ensure best practice and sustainability of the operation.

Sustainable harvest of young/juvenile grass trees should not be encouraged/supported. Material in this age class should be sourced through propagation.



6. Regulation and compliance

Grasstree harvesting will comply with State/Territory and Australian Government regulations, including threatened species legislation.

General principles

Harvesting of grasstrees should be underpinned by effective regulation in each State and Territory and at the national level to ensure that they are sustainably harvested. Ideally the regulations in each State should be complementary and have the ability to deal with cross border issues and comply with international trade agreements (such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora) to regulate export of this taxon.

Regulations should allow for systems to be developed to ensure effective compliance that is complementary at State/Territory and Australian Government level.

General guidelines

Legislation (Commonwealth)

A designated Australian Government agency should be primarily responsible for developing policies, maintaining records and ensuring compliance with export requirements for grasstree products.

Legislation (State/Territory)

All States/Territories are encouraged to have regulatory control over the commercial harvesting of grasstree products from harvest to market. Good regulatory control should include:

- legislation that protects grasstrees through requiring permits or licences for commercial harvesting. This legislation is to clearly define what constitutes grasstree harvesting, and clearly specify the regulations applying to such harvesting, which aim to prevent the sale of an illegal product.
- legislation that clearly indicates the level and conditions required for commercial grasstree harvesting to be undertaken sustainably. This may be in the form of a capacity to set licence conditions or conditions on access.
- legislation and licence conditions must be practical for grasstree harvesters and land managers to apply, and for State/Territory authorities to monitor and enforce.

The designated State/Territory authority primarily responsible for regulation and management should also be the authority who develops policies, maintains records, enforces regulations, and monitors compliance related to grasstree harvesting operations.

Legislation should include:

- penalties for breaches of harvesting or trading regulations. The penalties should reflect the seriousness of offences, and may comprise requirements for corrective actions, fines or jail terms.
- requirements that permit the tagging of plant materials and the charging of fees for tags to assist in cost recovery.
- requirements to only trade in tagged whole specimens originating from where tagging is implemented in that jurisdiction.
- requirements to maintain records of legally sourced products. These record-keeping requirements should apply to all people involved in all aspects of the commercial use of the product (i.e. buying/selling/bartering) and nursery growers of the plant from seed.
- requirements for compliance with other relevant codes of practice and guidelines relating to harvesting, including hygiene aspects.

Landholder/harvester responsibility

Land managers and grasstree harvesters have the responsibility of ensuring that their grasstree harvesting complies with State/Territory and Commonwealth legislation.

Primary producers sourcing and selling grasstrees must be licensed and comply with regulations.



Monitoring and enforcement

To help ensure compliance with regulations, regular, random audits should be undertaken, covering all areas of the supply chain. A greater focus should be given to high-risk activities, which should be audited more frequently.

A monitoring regime should be developed by the State/Territory authority in conjunction with the land manager to require grasstree harvesting sites and operations to be monitored regularly by the land manager or regulator to ensure sustainability of the harvesting operation and appropriate management of site-specific issues.

Regular field and desk top auditing is required to support compliance with harvesting and monitoring requirements, with a particular focus on high risk wild harvesting operations e.g. whole plants.

Regular inspections of dealers' premises, nurseries and other trading outlets should be undertaken by the State/Territory authority to ensure that grasstree products in trade comply with tagging and other regulations.

A centralised data management system should record permits and harvesting activities on all tenures to facilitate data collection and analysis. This data management system should also include details of tags issued for whole grasstrees.

Documentation and tagging

A tagging system should be the standard method for ensuring compliance with regulations for whole plant harvest, and to enable cross-jurisdictional management of the trading in whole plants. The tagging system should:

- be consistent with nationally accepted tagging systems that are used for other wild harvested plants
- be a legal requirement for all wild harvested whole plants
- be produced and issued centrally within jurisdictions
- be linked to documentation that approves the harvest of designated quantities of grasstrees from designated areas
- allow the tracking of a harvested grasstree from the point of harvest to its final retail destination, and
- detail records of tags issued by the State/Territory authority.

Grasstree tags should be appropriate for the species, conditions and regulatory requirements. Specifically tags should:

- be non-reusable, non-transferable, and species specific for whole grasstrees
- be resilient and visible, with colours that are changed regularly (i.e. yearly) to allow easy identification of period of issue
- provide details of the species and regulatory system
- contain details (number or barcode) that can be linked to recipient, date of issue and site of harvest, and
- be required to be attached to the plant at time of harvest and not removed prior to purchase by the end customer.

Grasstree tags should be recognised across jurisdictions, but tags from one jurisdiction should not be replaced by a tag from another jurisdiction. Tags should be consistently priced across the States/Territories to reduce illegal transfers of plants between States/Territories.

Tagging systems should take account of costing to ensure that tag prices reflect the cost of implementing the system. The price should be set at an amount high enough to give value to the tag (reducing the chance of illegal use). For example, tags could be issued under a scaled pricing system to encourage sustainable harvesting practices by providing financial incentives. High-risk operations such as harvesting of whole plants could be charged at a higher rate than lower risk operations such as artificial propagation. Where possible, the revenue generated being used for monitoring and compliance of grasstree species.

Where State/Territory administrative systems and legislation allow, the revenue generated by the sale of these tags should be used:

- for monitoring and compliance of grasstree harvesting
- to recover administrative costs, and
- provide technical, scientific and administrative support to the industry.

7. Education and liaison

Good communication between stakeholders is important in achieving a sustainable grasstree harvesting industry, through increased knowledge and understanding of the ecological requirements of grasstrees, the potential impacts which may occur from harvesting activities, and the regulations governing harvesting and trading in grasstree products.

Education

The development of appropriate information products for industry, harvesters, retailers and other stakeholders is recommended. These products, such as fact sheets, containing a consistent message regarding sustainable harvesting will raise the profile of *Xanthorrhoea* as an iconic genus.

To facilitate cross-jurisdictional awareness, all such information products should provide consistent information content, while allowing for specific State/Territory requirements and images (plants, tags etc).

Information products should be distributed to dealers, retailers and the general public, as well as relevant organisations such as the Nursery and Garden Industry Association.

Information products could also be developed to detail the best care and handling of whole plants for different grasstree species during removal, transport, in the nursery and in the home garden.

Liaison

There should be regular liaison between State/Territory authorities, grasstree harvesters, retailers and other stakeholders to ensure that the regulations for harvesting and trading are understood.

There should be regular liaison between Australian Government and State/Territory authorities, and other stakeholders, about industry activity and development and implementation of policies and regulations.

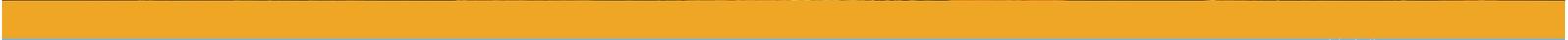
State authorities must provide an annual report to the Australian Government indicating the quantity of grasstree products harvested each year and monitoring and enforcement undertaken. If requested, the State/Territory should be able to provide details of grasstree harvesters, tags issued to them for whole plants and location of operations.

Development of industry associations should be encouraged - this would contribute to good practices and policy development. It would also facilitate the sustainability, commercial viability and evolution of the industry.

Jurisdictions are encouraged to share information gained from monitoring harvesting in their State/Territory. States/Territories are to alert other jurisdictions of issues that may be of concern and have impact across jurisdictional borders.

Any compliance, audit and enforcement concerns, particularly with relation to cross border issues are to be taken to the Department of the Environment and Water Resources to be raised with the National Flora Management Network.





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