Office of Environment & Heritage
NSW National Parks & Wildlife Service

Protected and threatened plants in the cut-flower industry

Draft sustainable management plan 2013–2015

For further information contact:
Wildlife Licensing and Management Unit
NSW Office of Environment and Heritage
PO Box 1967 Hurstville NSW 2220
Phone: (02) 9585 6406

Cover photo: Waratah (photo: Brendon Neilly/OEH)

Published by:

Office of Environment and Heritage
59 Goulburn Street, Sydney NSW 2000
PO Box A290, Sydney South NSW 1232
Phone: (02) 9995 5000 (switchboard)
Phone: 131 555 (environment information and publications requests)
Phone: 1300 361 967 (national parks, general environmental enquiries, and publications requests)
Fax: (02) 9995 5999
TTY users: phone 133 677 then ask for 131 555
Speak and listen users: phone 1300 555 727 then ask for 131 555
Email: info@environment.nsw.gov.au
Website: www.environment.nsw.gov.au

Report pollution and environmental incidents
Environment Line: 131 555 (NSW only) or info@environment.nsw.gov.au
See also www.environment.nsw.gov.au

ISBN 978 1 74359 007 2
OEH 2013/0087
February 2013

This plan should be cited as:

OEH 2013, *Protected and threatened plants in the cut-flower industry: draft sustainable management plan 2013-2015*, NSW Office of Environment and Heritage Sydney

Contents

Summary

Protected and threatened plants in the cut-flower industry: draft sustainable management plan 2013–2015 outlines a system to facilitate and regulate sustainably harvesting and producing material for the cut-flower industry in NSW. The tools and strategies in this plan support the long-term conservation of plant species used in the cut-flower industry, in both their natural habitat and as part of a viable cultivated native flora industry.

This plan details the status of native flora under NSW legislation and the licensing and reporting requirements in the *National Parks and Wildlife Act 1974* (NPWA) and is an important reference for the cut-flower industry. It will also help make the general public and the cut-flower industry more aware of the issues affecting the management and conservation of protected and threatened native plants used in the cut-flower industry.

This management plan has been prepared under section 115A of the NPWA, which provides for the preparation of management plans for protected native plants where the Director General of the NSW Office of Environment and Heritage (OEH) believes that harvesting native plants has the potential to adversely affect the conservation of a protected species or group.

The plan is based on four principles.

1 The maintenance of viable wild populations on private land is a priority.

2 Cooperative arrangements with the industry to promote cultivated or sustainable wild-harvested products in preference to picked products are encouraged.

3 The industry is to be self-sustaining and self-regulating through improved awareness of biodiversity issues and ecological sustainability.

4 Landholders should maintain native vegetation as a resource on their property. Harvesting may be possible if it can be conducted in a sustainable manner.

OEH will develop cooperative arrangements with the industry to promote cultivated or sustainable wild-harvested products in preference to picked products. A specific aim of this plan is to encourage the commercial cultivation of plants from seed or other propagating material and, where appropriate, allow products harvested from such plants to be traded with minimum restrictions.

The plan supports sustainably harvesting some plant species from naturally occurring stands on private land, while at the same time acknowledging there are conservation and biodiversity benefits associated with maintaining this vegetation.

The plan provides for the harvest of cut-flower products where:

- material is to be harvested from plants cultivated for the purpose of producing cut-flower products (grower licence)
- material is to be harvested from naturally occurring stands of native vegetation on freehold lands of which the applicant or licensee is the owner, and where the harvest is at such a rate that the harvest is considered by OEH to be sustainable
- harvest is from freehold or public land (excluding areas under the NPWA) where the land owner or manager has consented to the harvest and where OEH considers the harvest rate to be sustainable.

This plan targets high-risk products and areas in the cut-flower industry. In addition, it significantly reduces the regulatory burden on lower risk sectors of the industry through reduced tagging requirements and increased licence terms. A streamlined

process for harvest records and monitoring has been developed to assist licensees. There are also tools provided for assessing populations within harvest areas that will significantly assist licensees and regulators.

This management plan has been developed to meet the standards of the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) for a wildlife trade management plan relating to the regulation and monitoring of a class of native wildlife product proposed for export. It supersedes the *Protected and threatened plants in the cut-flower industry: management plan 2008–2012* that was approved by the Australian Government in 2008.

Terms and definitions

Artificially propagated means grown from seeds, cuttings, callus tissue, spores or other propagules under controlled conditions, including weed control, irrigation, tillage, fertilisation, potting, bedding and protection from the weather. The resulting plant is grown in soil or other growing media.

Authorised officer is a person authorised by the Director General of OEH, or a person holding an office, position or rank who can exercise authority in respect of the NPWA.

CFICC is the Cut Flower Industry Consultative Committee which provides a forum on issues pertaining to the sustainable harvest and use of native plants in NSW.

CITES is the Convention on International Trade in Endangered Species to which Australia is a signatory.[1]

Commercial means of, or engaged in, the purchase and sale of goods and services.

Critically endangered species means those species listed in Part 1 of Schedule 1A of the TSCA and which are facing an extremely high risk of extinction in NSW in the immediate future.

Critically endangered community means an endangered community listed in Part 2 of Schedule 1A of the TSCA facing an extremely high risk of extinction in NSW in the immediate future.

Cultivate means to plant, tend, harvest or improve plants; it is generally associated with artificial propagation activities.

Cut flowers include any plant part that is sold in the commercial cut-flower industry, including flowers, stems, foliage, fruit and seed heads.

Cut-flower industry is the industry that produces and markets cut flowers, foliage and other plant parts from both cultivated and natural stands for use in floral arrangements (both fresh or dried flower arrangements featuring Australian native plants that may include exotic species).

DSEWPC is the Commonwealth Department of Sustainability, Environment, Water, Populations and Communities.

Destroy and ***destruction*** mean to destroy, or the destruction of, a plant with no subsequent use of the plant or its parts.

Director General is the head of OEH.

Ecological sustainability occurs where the rate of use of natural resources is equal to or below the natural replacement rate, thus enabling an ecosystem to be sustained indefinitely. Sustainable use should also consider impacts on other species and processes in the system, not only those being used.

Endangered ecological community is an assemblage of species occupying a particular area that is likely to become extinct, or is in immediate danger of becoming extinct, and may be listed under Schedule 1, Part 3 of the TSCA.

---

[1] www.environment.gov.au/biodiversity/trade-use/cites/index.html

Endangered population is a population of a species that is likely to become extinct, or is in immediate danger of becoming extinct, and may be listed under Schedule 1, Part 2 of the TSCA.

EPBCA is the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth).

Grower is a person or company, licensed under section 132 of the NPWA (grower licence), who propagates, cultivates or harvests material from artificial sources of protected or threatened native plants on land that they own or occupy. In the legislation of some other states, a grower may be referred to as a cultivator.

Harvest and ***harvesting*** refer to the removal of plants or plant parts for the cut-flower industry to extract chemicals for food or for other purposes. It is an inclusive term encompassing plants or parts of plants removed by pickers, wild harvesters and growers.

In the wild and ***from the wild*** mean in an independent natural state.

Key threatening process is a process that adversely affects threatened species, populations or ecological communities, or could cause species, populations or ecological communities that are not already threatened to become threatened. A key threatening process may threaten the survival, abundance or evolutionary development of a native species, population or ecological community leading to a reduction in the biodiversity and ecological integrity of an ecosystem.

Native plant is a plant defined under the NPWA to mean any tree, shrub, fern, creeper, vine, palm or other plant that is native to Australia, and is a comprehensive definition that includes both the whole plant and parts of the plant.

NPWA is the *National Parks and Wildlife Act 1974*.

OEH is the NSW Office of Environment and Heritage, which includes the NSW National Parks and Wildlife Service (NPWS).

Pick is defined in the NPWA as meaning to gather, pluck, cut, pull up, destroy, poison, take, dig up, remove or injure the plant or any part of the plant.

Picker is a person or company, licensed under section 131 of the NPWA (picker licence), who picks a protected or threatened native plant from the wild from land of which they are not the owner, occupier or lessee.

Plant parts includes parts of a plant which are collected for purposes other than propagation, such as foliage or flowers, but does not include divisions of plants which are taken for propagation.

Private land includes freehold land and land leased, held under licence or permit from a natural person, company or the Crown under a tenure that grants an exclusive right of occupancy, or which is in the course of alienation from the Crown under any Act.

Propagule is any part of a plant capable of forming a new plant when separated from the original plant.

Protected native plants are all native plant species listed in Schedule 13 of the NPWA. These species may be common in the wild but are declared protected and listed in Schedule 13 to enable OEH to monitor and regulate activities associated with them.

Protected species is any species or member of a genus or family, including natural hybrids, listed in Schedule 13 of the NPWA.

Salvage is the removal of plants from an area that is being, or is to be, drastically altered by land-clearing operations where the plants would otherwise be destroyed. For the purpose of this definition, land-clearing operations include approved urban and rural development, forestry, mining and infrastructure development and maintenance, such as mowing or slashing of road verges and under powerlines. Approval for salvage must be sought through a picker or wild harvest licence; OEH reserves the right to restrict or limit salvage to those quantities specified in a Forests NSW harvest plan.

Site is defined, for the purpose of determining the appropriate licence fee, as a single property held under individual title or a specific parcel of land managed by a public authority (for example a state forest will be regarded as a single site even though there may be several picking locations within it). However, state forests with different names, even though they may adjoin, or adjoining parcels of private land that have separate titles, will be regarded as separate sites. In the case of roadside picking, a site is defined as a 5-km stretch of road.

Taxon (plural ***taxa***) is any organism that is described by a genus or other name or description, such as family, species or variety.

Threatened plant is a plant listed in Schedules 1, 1a or 2 of the TSCA.

Threatened species is any species listed in the Schedules of the TSCA as endangered, vulnerable or belonging to an endangered ecological community. Schedule 13, which is current at the time of adoption of this management plan as it relates to native plant parts used in the cut-flower industry, is in Appendix A.

The Schedules are updated on the NSW Legislation website.[2]

Under section 179 of the EPBCA, threatened species refers to species that are listed as extinct, extinct in the wild, critically endangered, endangered, vulnerable or conservation dependent. A register of the listed plant species can be found on the Australian Department of the Environment, Water, Heritage and the Arts website.[3]

TSCA is the *Threatened Species Conservation Act 1995*.

Vulnerable species is a species listed in Schedule 2 of the TSCA.

Wild harvest is any harvest that is from naturally occurring wild stands of protected or threatened plants on property owned by the licence applicant or licence holder.

Wild harvester is a person or company licensed under section 131 of the NPWA (wild harvest licence) to harvest from naturally occurring stands of native vegetation on property owned by the harvester. Harvesting from land where the person occupies the land under lease is subject to a picker licence.

Wildlife is defined by the NPWA as fauna and native plants.

Wholesaler is a person or company who buys and sells as a dealer, or on-sells material to a florist or other end-user in the cut-flower industry. For the purposes of this document, a wholesaler does not include a person who picks or cultivates.

WTMP means wildlife trade management plan.

---

[2] www.legislation.nsw.gov.au/fullhtml/inforce/act+101+1995+FIRST+0+N#sch.1

[3] www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora

1 Introduction

1.1 The conservation of native plants

Under NSW law, native plants belong to the owner of the property on which they grow. In order to preserve biodiversity and conserve native plants, various pieces of legislation govern the protection, clearing and utilisation of native vegetation and native plant materials.

The NSW Government introduced two pieces of legislation to regulate and monitor activities that may impact on the continued biological viability of native species throughout their natural distribution. These are the *National Parks and Wildlife Act 1974* (NPWA) and the *Threatened Species Conservation Act 1995* (TSCA). Some relatively common species that are subject to commercial use are listed as protected in the NPWA. Species, populations and ecological communities that have been identified as threatened are listed in the TSCA.

The NPWA was amended in 2001 to bring NSW legislation in line with the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). This amendment included a new provision, section 115A, relating to management plans for protected native plants, which came into effect on 1 July 2002.

This management plan addresses the regulating and monitoring by the NSW Office of Environment and Heritage (OEH) of plant species that are harvested from the wild or artificially propagated for the cut-flower industry, and replaces the *Protected and threatened plants in the cut-flower industry: management plan 2008–2012*.

1.2 Scope and general approaches

Native plants are used for many commercial and recreational purposes, including:

- cutting of flowers, foliage and other plant parts from both cultivated and wild plants for the cut-flower industry
- propagation of whole plants for retail or private use, or for bush regeneration and aesthetic planting
- collection of propagation material from wild plants
- use of native plants for traditional purposes by Aboriginal people
- bush tucker
- taking or growing of specimens for educational, scientific or medicinal purposes.

This plan is based on the following four principles.

1. The maintenance of viable wild populations on private land is a priority.
2. OEH will also encourage and develop cooperative arrangements with the industry to promote cultivated or sustainable wild harvested products in preference to picked products.
3. This management plan encourages the industry to be self-sustaining and self-regulating through improved awareness of biodiversity issues and ecological sustainability.
4. OEH will encourage landholders to maintain native vegetation on their property. Harvesting may be possible if it can be conducted in a sustainable manner.

This management plan outlines strategies to better regulate plant species which are picked, harvested and cultivated for the cut-flower industry. An outline of the relevant legislative framework is included. This document will also raise the awareness of the general public and the cut-flower industry of the broader range of issues affecting the management and conservation of protected and threatened plants used in the cut-flower industry.

While primary responsibility for the sustainable management and harvest of material for the cut-flower industry falls to state and territory governments, the cut-flower industry has established significant markets overseas.

The regulation of exports from Australia is the responsibility of the Commonwealth Government which seeks to ensure that plants that are internationally marketed by the cut-flower industry are subject to regulatory control and monitoring in the interests of species conservation.

Accordingly, this management plan is also designed to meet the requirements of the Commonwealth Government through the Department of Sustainability, Environment, Water, Populations and Communities (DSEWPC) which administers the Commonwealth's environmental laws. The Commonwealth Government is also responsible for Australia's participation in a number of related international environmental agreements, such as the Convention on International Trade in Endangered Species (CITES), to which Australia is a signatory.

Under the EPBCA, the Federal Minister may approve this plan as meeting the requirements of a wildlife trade management plan (WTMP), which would result in a streamlined export process for the cut-flower industry.[4] If this plan is accepted by DSEWPC, the requirements for export applications will be reduced upon supplying a copy of the appropriate licences. Further information regarding export permits is available on DSEWPC's website.[5]

This management plan will be reviewed no later than 2015 or earlier if it is considered necessary to achieve sound conservation of protected and threatened plants in NSW.

1.3 Aims

The aims of this management plan are to:

- support the future development and maintenance of a sustainable cut-flower industry in NSW
- ensure that the continued existence of biologically viable populations of NSW endemic plants in the wild is not compromised by the cut-flower industry
- define the legislative and policy requirements relating to the commercial use of protected and threatened plant species in NSW
- allow the harvest of plant material from the wild on appropriate land tenures where the harvest can be demonstrated to be ecologically sustainable and conducted within the legislation and policies outlined in this document
- encourage the transition to harvesting material only from plants that are cultivated or managed for that purpose on private land.

---

[4] An export application would normally be granted under s303DG of the EPBCA when an approved WTMP under s303FO is in place.

[5] www.environment.gov.au/biodiversity/trade-use/index.html

1.4 Key risks

If not managed responsibly, the harvest and sale of plant material through the cut-flower industry can pose several risks to the conservation of native plants in situ.

OEH is responsible for ensuring that the harvest of native plant material for the floral industries is undertaken in a sustainable manner and, while not responsible for the management of the cut-flower industry per se, OEH acknowledges that illegal harvesting poses significant risks to legitimate participants in the industry. Thus a collaborative approach to managing the cut-flower industry will best support the development of sustainable products and a sustainable industry.

1.4.1 Risk to conservation from harvesting activities

Harvesting of plant material from wild stands of native vegetation, if not appropriately managed, introduces a number of inherent risk factors. These include:

- direct threats to the survival of a population or species being harvested in the wild through the removal of plant material
- threats to the survival of a population or species other than that being harvested through the modification of habitat, food, shelter or other environmental factor
- increased likelihood of weed invasion in and around harvest areas
- harvesters and other machinery which may act as a vector for soil-borne or other pathogens
- decreased reproduction or recruitment of species or populations through the removal of flowering or other reproductive parts
- modification of abiotic (non-living) factors that influence a species or population.

1.4.2 Risks to the cut-flower and related industries from illegal harvesting activities

Illegal harvesting poses risks to industry as:

- illegal material decreases the viability of legitimate harvesters
- illegal material can compromise product quality in the market place
- illegal material can undermine consumer confidence in native plant products.

1.5 Strategies and objectives

The strategies and objectives of this management plan encompass:

- education and promotion
- regulation and enforcement
- the role of the Cut Flower Industry Consultative Committee (CFICC)
- fostering partnerships within the cut-flower and associated industries
- research.

1.5.1 Education

The education objectives are to:

- inform the public and cut-flower and associated industries about the need to conserve protected and threatened plants to maintain species and a sustainable industry
- ensure all participants in the supply chain are aware of the restrictions and conditions relating to the sale of protected or threatened plants
- encourage the use of artificially cultivated plants and managed wild plants on private land to meet the needs of the cut-flower industry
- encourage the retention of natural stands of vegetation on private property through sustainable harvest.

The education strategy will target all those in the cut-flower industry, including government agencies, pickers, wild harvesters, growers, wholesalers and retail operators, and the broader community.

The key messages to be delivered in the strategy are:

- NSW and Commonwealth legislation requires that the commercial use of protected and threatened plants is sustainable
- OEH is adopting a risk-based approach to the regulation of the cut-flower industry
- specific limitations are required on high priority and commercially significant species including, but not limited to, Gymea lilies (*Doryanthes* spp.) and grass trees (*Xanthorrhoea* spp.) (see Appendices I and J)
- the cut-flower industry is encouraged to artificially cultivate and manage wild plants to meet its needs wherever possible
- landholders are encouraged to retain natural stands of vegetation on private property through the development of sustainable harvest
- all those involved in the supply chain now have legal responsibilities when selling protected or threatened plants
- all parts of the cut-flower industry have a role to play in the development and maintenance of a sustainable industry
- the illegal harvest of native plants affects everyone.

Information will be delivered specifically to each focus group. Fact sheets and web-based material will be developed to deal with general aspects of the new systems and species referred to in this management plan.

Material will be available through industry bodies to ensure that it reaches as many as possible in the industry. OEH staff may also liaise directly with industry groups such as other government agencies, pickers, wild harvesters, growers, wholesalers and retail operators and the broader community to ensure that information is delivered effectively.

1.5.2 Regulation and enforcement

The objectives of this management plan are to:

- establish policy, systems and procedures for regulation and monitoring
- focus regulation and enforcement on those species assessed as being at highest risk in the industry
- license the picking of protected native and, in specific instances, threatened plants from the wild only if it can be demonstrated that picking them will not have a significant adverse effect on the survival of the species, its habitat and its ecological sustainability
- ensure that wild harvest does not increase threatening processes to protected or threatened species
- curtail the entry of illegally taken plants into the cut-flower industry
- develop a system of record keeping and/or tagging to track plants through the supply chain
- support those operating legitimately through regulation and enforcement.

There is a close link between the education strategy and effective licensing and compliance systems to control and monitor commercial harvesting from wild populations.

The maintenance of viable wild populations on private land will remain a priority. Effective monitoring and regulation systems have been developed to ensure compliance with legislative and policy requirements and to deal with those who operate outside the regulatory framework. The sustainable harvesting of plants from cultivated and managed natural stands by the property owner or occupier will be encouraged by simpler licensing and record-keeping systems.

Species not listed in Schedule 13 are not protected and are exempt from licensing and tagging requirements. Schedule O lists those native plants that are known to be regularly commercially harvested or grown and which have been assessed to be of low conservation concern. These species are not subject to licensing or tagging requirements. Licences may still be required for export under the EPBCA. Where possible, DSEWPC and OEH will ensure concurrence between the list of exempt species in the EPBCA and the NPWA. Where there are inconsistencies, harvest and export will be dealt with on a case-by-case basis.

OEH will encourage wild harvesters to maintain native vegetation as a resource on their property. Harvesting may be possible if it can be conducted in a sustainable manner. There are many benefits in managing native vegetation in this way, including:

- maintaining biodiversity and vegetative cover
- protecting hydrological resources, such as the water table and soil moisture
- providing refuges for stock and native wildlife
- vegetation harvesting as a source of income
- aesthetic values
- acting as an environmental indicator of changes in biodiversity through ongoing monitoring.

It is recognised that industry-developed and supported best practice is often a more effective tool than government regulation. OEH will encourage the cooperation of pickers, wild harvesters, growers, wholesalers, retailers, exporters and the public to report suspected unlawful activities.

OEH will also encourage and develop cooperative arrangements with the industry to promote cultivated or sustainable wild harvested products in preference to picked products. It is recognised that the transient nature of picking and the often limited investment in infrastructure can lead to difficulties in regulating these operations. This management plan encourages the industry to be self-sustaining and self-regulating through improved awareness of biodiversity issues and ecological sustainability.

1.5.3 Cut Flower Industry Consultative Committee

OEH established the CFICC, which has representation from the industry, including associations and individual pickers, growers and wholesalers, the Department of Primary Industries NSW and the Royal Botanic Gardens Trust (part of OEH). The CFICC provides an avenue for discussion of the commercial use of native species. The CFICC is also a valuable conduit for information to and from the broader cut-flower industry and has a significant role to play in the development and dissemination of information. It is also involved in revising Schedule 13 (section 3.1.5) and in advising OEH on current cultivation practices (section 3.1.7).

OEH will maintain close liaison with DSEWPC, Australian Customs and intrastate and interstate agencies that have an interest in native flora management.

1.5.4 Research

The research objectives of this management plan are to:

- obtain data about protected and threatened taxa in NSW, including localities, population numbers and dynamics, response to disturbance and breeding potential, to establish the significance of wild harvest with particular focus on slow growing or high-demand species in the cut-flower industry
- refine existing sustainable harvest levels for key species
- develop sustainable harvest levels for additional species
- collect and collate harvest data
- set research priorities according to the conservation status of species
- regularly review research which may aid refinement of this plan
- build on existing information available on species harvested for the cut-flower industry.

OEH, through consultation with the CFICC and the scientific community, may establish research priorities that investigate the limitations and controls on the cut-flower industry in NSW. OEH, independently of the industry, will keep up-to-date on research which may have management implications for the industry.

2 Administrative and legislative issues

2.1 Commonwealth legislation

2.1.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBCA provides for the establishment of management arrangements for the protection, conservation and management of a plant or animal under a WTMP where there is commercial harvesting of native species. Approval of a WTMP is given by the Federal Minister responsible for the environment and this is published in the Commonwealth Gazette. A WTMP can be developed by a state government or by other means under sections 303FO or 303FP of the EPBCA. Species or products sourced under a WTMP are eligible for an export permit.

This management plan is designed to meet the requirements of a WTMP under section 303FO of the EPBCA and applies to the commercial harvest and export of all native plants listed in Schedule 13 of the NPWA.

The licensing regime relating to grower licences under the NPWA is also designed to meet the requirements of an approved artificial propagation program under section 303FL of the EPBCA. This means that plants listed in Appendix I of CITES or as threatened under the EPBCA may be exported commercially, under permit from DSEPWC, by grower licensees.

2.1.2 Plant Breeders Rights Act 1994

This Act provides for the granting of Australia-wide proprietary rights to breeders of certain new varieties of plants and fungi. It has no direct bearing on the commercial use of protected or threatened plants for the cut-flower industry in NSW.

2.2 NSW legislation

2.2.1 National Parks and Wildlife Act 1974

The NPWA, which is administered by OEH, is the primary legislation which protects native plants in NSW. Under the NPWA, native flora in NSW is the property of the landowner. However, the NPWA provides for OEH to impose restrictions on the commercial use of protected and threatened species to allow it to monitor harvesting to ensure sustainable use and preservation of wild populations of native plants.

OEH regulates those species listed as protected in Schedule 13 of the NPWA or as threatened under the TSCA. The NPWA provides for licensing for the commercial use of protected and threatened native plants.

This management plan relates only to those species listed under the NPWA in Schedule 13 Part 1 Groups 1–5 (Appendix A) and to those species listed in Appendix O.

Licences are not required to pick protected native plants that grow on private property for non-commercial purposes if picking is undertaken with the landholder's permission (a private person or company in the case of freehold land) as this plan refers only to commercial use.

A licence is required for protected species when protected plant material is sold or tendered for sale. Protected species are the plants listed on Schedule 13 Part 1 of the NPWA (Appendix A). However, a licence is required to pick any naturally growing threatened species listed in the Schedules of the TSCA for any purpose.

Protected native plants may be harvested for commercial purposes from private (freehold) land. If the occupier of the land is a lessee, the landowner's written permission is needed. Public land requires the consent of the managing authority. No licences will be issued to pick material for the cut-flower industry from areas managed under the NPWA. Forests NSW has management control over harvesting forest products, including protected plants. However, the harvest of non-timber products is subject to the regulatory requirements of the NPWA and reporting requirements of OEH, as is the harvest of plants from other public land.

Section 115A of the NPWA allows the Director General to prepare management plans for any commercial activity relating to protected native plants if he or she is of the opinion that there may be an adverse effect on the conservation of the species or group of species.

In preparing a management plan the following are to be considered:

- ecology of the species
- sustainability of the management regime
- Aboriginal cultural practices
- standards for the picking or growing of plants
- limits on the number of licences required for a commercial activity
- protocols for the extraction of plants from the wild
- consistency with any threat abatement or recovery plan within the meaning of the TSCA
- harvest monitoring
- any other matters that the Director General considers relevant.

2.2.2 Threatened Species Conservation Act 1995

Species that have been determined to be facing extinction are listed in the Schedules of the TSCA as threatened, critically endangered, endangered or vulnerable. The independent NSW Scientific Committee is responsible for determining whether species, populations and ecological communities are eligible to be listed.

The TSCA places restrictions on the use or destruction of threatened species and permits the listing of processes that are, in the opinion of the NSW Scientific Committee, a significant threat to threatened species, populations and ecological communities. A list of relevant key threatening processes currently listed is in Appendix L.

There is no acknowledgment by the TSCA that the following are threatening processes; however, they are recognised by many as significant in the continued protection of native vegetation:

- changes in ecological conditions due to land-use changes, runoff from urban areas and habitat disturbance (such as rubbish dumping or trampling, but excluding frequent fire)
- poisoning or selective clearing to prevent domestic stock from eating toxic parts of some plants, such as cycads
- appeal to, and subsequent demand from, plant-use industries and private collectors leading to over-harvesting (both legal and illegal) and excessive depletion of naturally occurring stock.

This plan does not permit the harvest of threatened species from the wild under picker or grower licences. Threatened species can only be picked from the wild for the establishment of artificial propagation programs, and then only if the applicant meets the requirements for a licence under Part 6 of the TSCA or section 132C of the NPWA. The TSCA provides that, in some circumstances, a licence is required under section 91(1) to pick a threatened species, or to pick any specimen from an endangered population or ecological community.

2.2.3 Native Vegetation Act 2003

The *Native Vegetation Act 2003* is concerned with the conservation and sustainable management of native vegetation and clearing of land. The objects of the Act are to:

- provide for, encourage and promote the management of native vegetation on a regional basis in the social, economic and environmental interests of NSW
- prevent broadscale clearing unless it improves or maintains environmental outcomes
- protect native vegetation of high conservation value with regard to water quality, biodiversity and the prevention of salinity or land degradation
- improve the condition of existing native vegetation, particularly where it has high conservation value
- encourage the ecologically sustainable revegetation and rehabilitation of land with appropriate native vegetation.

This Act places restrictions on the clearing of native vegetation and does not have any direct bearing on the commercial use of protected or threatened plants in the cut-flower industry.

2.2.4 Plantations and Reafforestation Act 1999

This Act concerns the reafforestation of land and the establishment of timber and other forest plantations; it does not have any direct bearing on the commercial use of protected or threatened plants for the cut-flower industry, but growers with areas over 30 hectares, or growers with environmental plantings which exceed the exempted area of 30 hectares, require approval under the Act.

2.2.5 Environmental Planning and Assessment Act 1979

Some local environmental plans may include planting native species for the regulation of horticultural activities; growers need to check what is permissible in their area. If part of a cut-flower horticultural activity requires an environmental impact statement because it may significantly affect the environment − for example, building a dam − then impacts on threatened species would be considered.

2.2.6 Western Lands Act 1901

Lessees of Western Lands Leases may be restricted by the terms of their leases in growing or picking native vegetation, or in granting consent for the picking of native species.

2.3 Penalties

The penalties for offences relating to protected and threatened native plants in NSW are specified in the NPWA and its Regulations.

It is an offence under section 115a of the NPWA for a person to sell a protected native plant, or part thereof, without the required tag if a flora plan of management requires that plant, or part thereof, to be tagged. The maximum penalty is 100 penalty units ($11,000 – currently one penalty unit is $110), plus an additional 10 penalty units ($1100) for each whole plant affected.

It is an offence under section 117 of the NPWA for a person to pick or have in the person's possession a protected native plant. The maximum penalty is 100 penalty units ($11,000 – currently one penalty unit is $110), plus an additional 10 penalty units ($1100) for each whole plant, imprisonment for six months, or both.

It is an offence under section 118 of the NPWA to sell a protected native plant without lawful authority. The maximum penalty is 100 penalty units ($11,000), plus an additional 10 penalty units ($1100) for each whole plant, imprisonment for six months, or both.

The maximum penalty for picking threatened species, populations or ecological communities, or for buying, selling or possessing threatened species or individuals of an endangered population is:

- for endangered species (Schedule 1 TSCA) 2000 penalty units ($220,000), imprisonment for two years, or both
- for vulnerable species (Schedule 2 TSCA) 500 penalty units ($55,000), imprisonment for one year, or both.

Penalties are also specified for damaging the habitat of threatened species, populations and ecological communities. The maximum penalties are:

- for damaging critical habitat 2000 penalty units ($220,000), imprisonment for two years, or both
- for damage to habitat of a threatened species, population or ecological community 1000 penalty units ($110,000), imprisonment for one year, or both.

In addition to, or in substitution for, any financial penalty, the offender may be required to mitigate the damage or restore the habitat and provide security for the remediation.

Section 160 of the NPWA provides for the issue of penalty notices for certain offences. The National Parks and Wildlife Regulation 2009 lists the fixed penalty notice offences, including offences relating to picking, possessing and selling protected native plants, providing false or misleading information in a licence application or falsifying records, and contravening or failing to comply with conditions and restrictions of licences. These fixed penalty notices impose fines of $300 or more.

Under section 134 of the NPWA the Director General or NSW Minister responsible for the environment may cancel a licence. The licensee has the right of appeal under section 135 of the NPWA.

There are new tagging requirements under this management plan (see section 4.3). All products on which tags are required must remain tagged until the product is sold to a domestic consumer or, if sold in bunches, the bunch is split for sale.

3 General management procedures

3.1 Licence types and licensing requirements

This management plan will be administered within the provisions of NPWA and the TSCA to regulate and monitor the commercial use of protected and threatened plants in NSW.

Licensing of the cut-flower industry will be in three categories: picker, wild harvest and grower licences. These are outlined below with details in Appendices B to D.

3.1.1 Picker licence

A picker licence may be issued under section 131 of the NPWA where the applicant intends to harvest plant material from natural stands of native plants on land not owned by the applicant. Written permission is required from the landowner prior to the issue of any picker licence. Picking is restricted by this management plan to those species listed in Part 1 Group 2 (and Group 3 as indicated in this plan) of Schedule 13, and Appendix O. No picking of species listed in Groups 4 or 5 of Schedule 13 will be permitted. No species listed under the TSCA may be taken under a picker licence.

3.1.2 Wild harvest licence

A wild harvest licence may be issued under section 131 of the NPWA to the freehold owner of a property to harvest from naturally occurring stands of native plants on their property. A wild harvest licence may permit the harvest of all species listed in Part 1, Groups 2, 3 and 4 of Schedule 13. No species listed under the TSCA may be taken under a wild harvest licence.

3.1.3 Grower licence

A grower licence may be issued under section 132 of the NPWA for the growing and harvest of artificially cultivated species listed in all Groups of Part 1 of Schedule 13, which includes both protected and threatened species.

3.1.4 Sellers' obligations

The supply of illegally harvested plant material entering the market can jeopardise wild populations and directly impact on the economic position of legal participants in the industry. Those who on-sell protected and threatened plants do not require a licence from OEH. Sellers, either wholesalers or retailers, are required to obtain plants from NSW licensed pickers, wild harvesters or growers, or from other legitimate sources.

It is in the best interests of all in the industry to ensure that illegally obtained material does not enter the market. Therefore, an authorised officer who has reasonable suspicion that plants have not been obtained legally may request that the material be delivered up or the product may be seized, and a penalty notice may be issued or other legal action instigated.

3.1.5 Revision of Schedule 13

Proposals to add species to Schedule 13 or to change an existing listing must be submitted in writing to the Director General who may have the submission evaluated by the CFICC using a risk assessment model and current industry knowledge.

All recommendations made by the CFICC will be passed to the Director General with an indication of support or otherwise by the Deputy Director General. Where the CFICC and the Director General support a change to schedule 13, Section 115 of the NPWA allows the NSW Governor to amend Schedule 13 by publishing an order in the Gazette on advice from the NSW Minister responsible for the environment.

If information about a species does not allow an informed recommendation by the CFICC, the proposal may be referred to an expert in the biology of the species for independent evaluation and further information. This additional material will be considered by the CFICC.

Changes to the listing of a species will be current for a minimum of 12 months to avoid frequent revisions to a species. Where there is insufficient evidence that the harvest of a species is sustainable, a precautionary approach must be taken: clear evidence must exist for the lessening of restrictions on a species.

Schedule 13 may include all native species in any taxonomic group, that is, accepted varieties, subspecies or higher.

Part 1 of Schedule 13 protects endemic NSW species that are harvested for the cut-flower industry and are subject to this management plan. The harvest may be of any part of the plant, foliage, flower, fruit or other part which is not the whole plant. Species in Schedule 13 Part 1 at the time of adoption of this management plan are listed in Appendix A. The complete and current Schedule 13 is available on the NSW Government legislation website.[7]

3.1.6 Groups of species and licensing or tagging requirements

Part 1 of Schedule 13 is split into five groups that are subject to different licensing and tagging requirements. The allocation of species to these groups has been undertaken based on current industry knowledge, information collected by OEH and through the use of risk-assessment tools. Higher numbered groups are subject to more stringent regulation by OEH as they are considered to be of greater risk from illegal harvest activities. This strategy enables OEH to better direct compliance and regulation activities to those species where illegal harvest operations may impact on the species conservation in the wild.

Part 1 Group 1 – No species are currently listed in this group

Appendix O provides a list of species known to be in commercial trade but have been assessed as being at low risk from this activity. These species are endemic to NSW and are listed to acknowledge their commercial use. As current harvesting does not pose a significant risk to species conservation they are of limited concern. Species in Appendix O are likely to be plants that are either not considered to be highly marketable, or have been artificially cultivated in sufficient numbers and are of superior quality to bush-picked varieties, and therefore are not considered to be at risk. For these species:

- no licence is required
- no tags are required
- landholder permission is required for harvest where the picker is not the land owner
- a DSEWPC export permit will be required unless the species is in the DSEWPC List of Exempt Native Species

[7] www.legislation.nsw.gov.au

- it is recommended that no more than 20% of a plant may be removed in any harvest period (usually 12 months).

Part 1 Group 2 – Species that are subject to a picker, wild harvest or grower licence. NPWS tags are not required

This is a large group as these species are commonly harvested from the wild, which may pose a conservation risk to species in this group and will continue to be monitored. These species are considered to be at low to moderate risk. Harvesting is being monitored to ensure that it is sustainable.

- A licence is required (picker, wild harvest or grower).
- No tags are required; however, growers are encouraged to use grower tags for species in this group.
- A DSEWPC export permit will be required unless the species is in the DSEWPC List of Exempt Native Species.
- OEH may impose restrictions on the quantities that can be harvested except for material produced under a grower licence.
- Harvest monitoring and record keeping is required.

Part 1 Group 3 – Species that are subject to wild harvest and grower licences only. NPWS tags are not required

These species are commonly harvested from the wild and are in moderate commercial demand. Harvesting may be increasing the risks to their conservation, and they cannot be harvested under a picker licence. For many species, the cut-flower industry is establishing artificially propagated stocks which are not yet available in sufficient commercial quality and quantity. A licence is required (wild harvest or grower).

- A DSEWPC export permit will be required unless the species is in the DSEWPC List of Exempt Native Species.
- No tags are required; however, growers are encouraged to use grower tags for species within this group.
- OEH may impose restrictions on the quantities that can be harvested except for material produced under a grower licence.
- Harvest monitoring and record keeping is required.

Part 1 Group 4 – Species that are subject to licensing: NPWS tags are required

These species are commonly harvested from the wild and are in high commercial demand. Harvesting is likely to increase the conservation risks to these species (Appendices F–J) which are of greatest concern to OEH and which will be regulated and monitored closely.

- Licences will be subject to tagging requirements.
- A wild harvest or grower licence is required: these species cannot be harvested under a picker licence.
- NPWS tags (section 4.3.1) are required for all material. Grower tags may be used in addition to but not instead of NPWS tags.
- A DSEWPC export permit will be required unless the species is in the DSEWPC List of Exempt Native Species.

- OEH may impose restrictions on the quantities that can be harvested except for material produced under a grower licence.
- Harvest monitoring and record keeping is required.

Part 1 Group 5 – Species for which only grower licences may be issued

Species in this group are considered to be at high risk of exploitation, and in general can only be cultivated under a grower licence. It is envisaged that they will eventually be cultivated in sufficient quantity and quality for commercial use. These species will be reclassified and listed in Appendix O when wild populations are not considered to be at risk.

- Licences will be subject to tagging requirements.
- Unless otherwise stated, only grower licences will be issued as these species are either rare in the wild or overpicked, causing local species extinction or damage to the habitat.
- Grower tags will be required. In some circumstances cultivated material may be exempt from tagging where it can be clearly identified as cultivated. This may be through other labelling strategies or by the propagation of cultivars.
- NPWS tags may be issued only where the grower is unable to produce their own tags. These tags must include the phrase 'plantation grown' or similar.
- A DSEWPC export permit will be required unless the species is in the List of Exempt Native Species.

3.1.7 Grower or wild harvest plants

Despite the definition of artificial propagation in this document, OEH recognises that in some cases it is difficult to differentiate between artificially propagated and wild harvested plants. This confusion arises as some species grow best in situ, relying on prevailing conditions such as soil moisture and acidity; for example, Christmas bells (*Blandfordia* spp.). For a proposal to grow in situ to be considered, the applicant must demonstrate that the natural site is subject to replanting, seed sowing or similar propagation techniques and is in fact operated as an in situ artificial propagation operation.

OEH proposes that the CFICC be consulted to eliminate the variation in determinations made by licence applicants and authorised officers as to whether a licensee is a wild harvester or a grower. In general, a written site description, photographs and other supporting information, including an outline of horticultural practices, must be provided in an application. The CFICC may then provide advice to OEH identifying if the methodology proposed is in line with industry practices for a species and recommend whether OEH issues a wild harvest or grower licence.

This issue is important given that many species may only be harvested under a grower licence, particularly species listed in the TSCA.

3.1.8 Phasing out of picker licences for species in propagation

It is the intention of OEH to limit, reduce and ultimately cease issuing picker licences for species that, in the opinion of OEH, may be placed at risk by this activity. It is recognised that this needs to be systematic, and that impacts on the industry are to be minimised.

The phasing out of picker licences will only be considered for plants that are in Part 1 Groups 2 of Schedule 13 where, in the opinion of OEH, harvest activities may place the species at risk. OEH encourages and supports those who wish to harvest from

managed wild stands on property which they own or wish to invest in. These limitations do not apply to artificially propagated plants produced under a grower licence.

The licensing system will provide information about the industry. Based on data collected and the harvest returns submitted by licensees, the contribution of picked product compared to that supplied by wild harvesters and growers will be determined. All reporting of quantities is in units of stem to enable valid seasonal comparisons.

OEH will collate this information and provide it to the CFICC which will make a recommendation to the NSW Minister responsible for the environment through the Director General as to the current status of species in the industry. Species may be allocated to one of the groups listed in section 3.1.6, and formal notification will ensure that all in the industry are aware of the commercial status of each species. A five-step approach to the phasing out of picker licences is described below.

Step 1

Where the contribution of wild harvest or grower product to the market is 5% or less, no immediate or specific action is necessary. Where the product has been identified by the industry as one under market development or expansion, the CFICC could direct research and development of the species. This will offset pressure on species as the market develops.

Step 2

Where the contribution of wild harvest or grower product to the market is between 5% and 10%, this management plan encourages cultivation, with emphasis on horticultural research, information distribution and market research to develop cultivated material. No specific action relating to licences will be taken.

Step 3

Where the contribution of wild harvest or grower product to the market is between 10% and 20%, OEH will not issue picker licences within two years from the date of determination and move the species to Schedule 13 Group 3.

Step 4

Where the contribution of wild harvest or grower product to the market is between 20% and 30%, OEH will not issue picker licences within one year from the date of determination and move the species to Schedule 13 Group 3.

Step 5

Where the contribution of wild harvest or grower product is greater than 30%, the NSW Minister responsible for the environment may immediately cease issuing picker licences for the species or specify a licence phase-out. Licences current at the time of the determination would be permitted to run until expiry.

3.2 Sustainable harvesting

For an authorised officer to issue a licence for the harvest of a protected species, the applicant must demonstrate that harvest can be sustainable. This excludes plants propagated under a grower licence.

- This requirement will apply for every species for which a picker or wild harvest licence is applied for after the adoption of this plan, even if the applicant has harvested previously.
- Without affecting the statement above, this requirement will apply only to initial applications. Where a wild harvester seeks to reapply for a licence for land in a previous application, OEH may request additional information to assess the application.
- This applies to the harvest of plants for both export and domestic markets.

The applicant may need to demonstrate or comply with some or all of the following:

- skills to accurately identify the target plant, monitor and record levels of harvest and the status of the harvested population, or access to appropriately qualified expertise to record information for submission to OEH
- acceptable information on the disturbance history of proposed harvest sites (for example, time since last fire), plant densities, population structure (adults, juveniles or seedlings), plant longevity and survival
- recording of basic plant data such as number of stems per plant, flower numbers or any other information required by an authorised officer or this management plan
- assessment of the impact of the proposed harvest on the wild population, such as fauna and soil stability, with the assessment supported and approved by OEH
- estimates on timing and frequency of flowering and fruiting, plant fecundity (magnitude of seed production), processes that control seedling recruitment, survival and growth of new individuals, and rate of growth and recruitment levels
- assessment of the legal conservation status in NSW of the species to be harvested
- the potential to deal with damage mitigation such as the construction of sediment traps to catch increased sediment run-off as a result of harvesting
- the potential to mitigate against issues such as weed and pathogen invasion.

In some circumstances the applicant will need the advice of an independent expert. This helps determine the sustainability of a proposed harvest where there is an application to harvest a species that has not previously been harvested, or if it is unclear how harvesting will affect the species and its ecological community. The advice provided will be considered by the authorised officer prior to issuing a licence.

Harvesting will also need to comply with any relevant NSW codes of practice and national standards.

3.3 Determining levels of harvest

Knowledge of the populations, numbers and reproductive biology of protected and threatened plants in NSW is, for many species, extremely limited. More information about ecological sustainability will be provided through research and the collation of information from applications, inspections and returns as required in this management plan. This information will enable OEH, where necessary, to adjust harvest levels to ensure harvest sustainability.

The species composition of a site will be influenced by its physical environment (including geology and drainage), size, recent rainfall or drought conditions and by its disturbance (including fire and treefall) history. Determining a sustainable rate of harvest depends on suitable data being provided; a harvesting plan may incorporate data on fecundity and growth rate.

The harvesting of plant parts, particularly foliage, can remove nutrients that would otherwise be recycled in the plant community. Overharvesting may lead to changes in soil nutrients, which may jeopardise sustainable harvesting. Many plant parts that are removed are food sources for native fauna.

The removal of reproductive material from plant populations, such as flowers, fruits and seeds, can lead to a reduction in genetic diversity and fitness, particularly in species that have long generation times (for example, *Xanthorrhoea* spp.). Reduced genetic diversity may reduce the capacity of a species to adapt to changes in environmental conditions.

3.3.1 Population estimate

Applicants for either a picker or wild harvest licence are encouraged to develop a plan of the proposed harvest which describes the site, including details such as access, approximate quantities of the target species in the harvest area and, if possible, the capacity for the population to recover from harvesting.

An applicant for a picker or wild harvest licence must include an estimate of the population of the target species on the property and within the harvest area with the application.

The NPWS area office will, where possible, conduct a site inspection prior to first issuing a picker, wild harvest or grower licence.

The following is the minimum information that must be supplied.

- Four plots, each 20 m × 20 m, must be established within the proposed harvest area. An assessing officer may request that additional plots be established.
- All plants of the target species available for harvest must be counted. This count excludes individuals of the species that would not produce material suitable for harvest within the licence period. For species that produce multiple stems (such as *Actinotus* spp.), stems rather than the number of individuals should be counted.
- The number of plants in each plot should be multiplied by 25 to give a number per hectare.
- The number of plants per hectare from each plot can then be added and divided by four to give an average number per hectare. This estimate will be used to set the harvest level.

An example of the data required is in Appendix K.

3.3.2 General harvest levels

There are various ways to limit the impact of harvesting on particular species and to manage an area for long-term sustainability.

Rotational harvesting can assist in ensuring that areas are harvested periodically and not too frequently so that they can maintain a healthy seedbank (Appendix K).

The authorised officer may impose licence conditions that reduce the impact of harvesting on threatened species:

- A picker or wild harvester may not remove more than 10% of the flowers, fronds or other parts from any one plant, or more than 1% of the plant.
- Where the entire flower or leaf production is contained in one or a few structures, such as grass trees (*Xanthorrhoea* spp.) and Gymea lilies (*Doryanthes* spp.), plant parts may only be harvested from a maximum of 20% of the reproductive individuals in the identified harvest area in any calendar year or licence period. Limits may be placed on the number of plants from which material may be removed. If licensed pickers or wild harvesters can establish through scientific research that more than 10% of the flowers or more than 1% of the whole plant can be harvested sustainably, they may be permitted to harvest accordingly. These new levels should be included in future harvest levels.
- No limits will be set on material produced under a grower licence.

Where data on the level of harvest of a species give rise to concerns about sustainability, OEH may impose a quota on, or otherwise restrict the level of wild harvest. Restrictions may be varied according to criteria such as rainfall, effects of fire and other land-use considerations. In extreme cases, there may be a complete ban on harvesting a species for a specified period or area.

Where there is any doubt about the advisability of harvesting or the level of harvest, the authorised officer must take a precautionary approach, with the integrity of the local population the foremost consideration. If OEH has concerns about the sustainability of harvest or if a previously unharvested species is proposed to be harvested, the licence may be refused. In this case the applicant may seek an independent review by an expert in the ecology of the species on the effects of harvest. This advice will be considered by the authorised officer prior to issuing any licence.

3.3.3 Fire impacts

Fire affects many environments from which plants may be harvested. Fire frequency and intensity determines the recovery rate of affected vegetation and may dictate the pattern of harvesting. Take into account the impact of fire when assessing the sustainability of a proposed harvest.

3.4 Location of harvest

3.4.1 Private and leasehold land

Most growers and pickers in the cut-flower industry harvest from private land. Pickers must obtain written permission from the landowner before an application is lodged.

3.4.2 Land managed by OEH

A picker licence will not be issued to pick native plants for commercial or private purposes on any land managed by OEH under the NPWA or the *Wilderness Act 1987*.

A consent under the National Parks and Wildlife Regulation 2002 to pick from OEH-managed areas will be considered only if it assists in establishing a commercial crop, where propagules are not available, or are very limited from other sources, and where establishing a cultivated population may contribute to the conservation of a species. Unless otherwise specified, a fee of $200 will apply for any consent granted.

3.4.3 State forests

The cut-flower industry substantially depends on picking in state forests, particularly for the filler trade. Section 116 of the NPWA permits Forests NSW to grant consent for the removal of any protected species if:

- the removal complies with the management plan under section 115A of the NPWA
- Forests NSW is of the opinion that the plant would be destroyed in the taking of timber, products or forest materials, or in the carrying out of any activity authorised by the *Forestry Act 1916*
- the material is identified in a harvest plan for a given area.

A picker licence under the NPWA is required for picking in state forests and a complementary Forest Products Licence from the local regional office of Forests NSW must also be obtained. This dual licensing system will remain as OEH is primarily responsible for wildlife conservation in NSW, and Forests NSW ensures that harvesting from state forests is sustainable and that appropriate revenue is raised from the sale of this public resource.

A picker licence will only be issued on receipt of written approval of the proposed harvest by the relevant Forests NSW regional office. This approval must state the location of the harvest area, the target species and quantities, and include a statement that the Forests NSW officer is of the opinion that the proposed harvest is sustainable.

Harvest levels will not be greater than those endorsed by Forests NSW but may be further limited by the authorised OEH officer. Where endorsement from Forests NSW is not received, OEH will not issue picker licences.

3.4.4 Crown land and other public land

Public land can be either leased or unleased. Applicants need to obtain written permission from the lessee of Crown and other public land before they can apply for a picker licence.

For unleased public land, applicants must obtain written permission from the authority responsible for managing the land. Road verges, for example, may be

managed by local councils or the Roads and Traffic Authority, but some roads through stock routes are managed by the local Rural Lands Protection Board. The Department of Natural Resources and Planning and the Department of Lands may manage other Crown land. Government departments may have different policies with respect to the use of native plants on land that they manage, or they may have other restrictions or access conditions.

3.5 Weeds and soil pathogens

Harvesting of plants in the wild may contribute to the transfer of weeds or soil pathogens between localities. Precautions, such as cleaning tools and washing shoes between visits to different sites, must be taken to prevent the spread of weeds and especially pathogens, such as *Phytophthora* spp. This is particularly important for pickers, who often work in different areas.

OEH reserves the right to cease issuing licences or withdraw existing licences for harvesting on land affected by soil pathogens or weeds.

3.6 Research

As indicated in section 3.2, it is a requirement for any applicant for a picker or wild harvest licence to establish monitoring plots to determine harvesting is sustainable.

Disturbance history, plant density, survival, growth, fecundity and recruitment are all key factors in assessing the viability of a population.

3.6.1 Establishment of photographic points

The standard requirement of this management plan for monitoring the effects of harvesting is the establishment of a clearly defined photographic point which must be marked in the field by a permanent marker and tagged with the licensee's licence number. The photographic point must be identified clearly on the plan of the site submitted with the licence application. A photograph must be taken from this point immediately before and after harvest.

Photographs, clearly labelled with the date of the photograph, the licence number and the name of both the licensee and the photographer, covering a representative area of the harvest must be forwarded at the completion of harvest to the OEH area office which issued the licence. Digital photographs are acceptable. A licence renewal application will not be granted until this condition has been met.

Photographic monitoring is not required for activities conducted under a grower licence.

3.6.2 Targeted monitoring

In order to maximise the effectiveness of monitoring and research programs and to reduce compliance on those in the industry, OEH has identified key targets for monitoring and research (see section 3.8). In general, it is expected that those harvesting on their own property – wild harvesters – will harvest sustainably as it is in their interest to ensure the perpetuation of the product. This, combined with the fixed location of wild harvesting, facilitates monitoring. Landholders licensed to wild harvest are required to provide harvest data to OEH which can be analysed to monitor harvesting on private land.

In contrast, the geographically transient nature of picking under a picker licence does not assist harvest-level monitoring. To gain further data on the impacts of those activities permissible under a picker licence, establishing photographic monitoring points will be required.

The requirements that may be imposed for monitoring of species under each group in Schedule 13 Part 1 are outlined below. Monitoring applies to pickers and wild harvesters (monitoring is not required for growers), and may apply to licences for both export and domestic markets.

Appendix O

Species in this group are at little, if any, risk from over-harvesting. No licences are required and it is not the intention of this management plan to require any monitoring of these species. OEH may, through the CFICC, conduct or commission research to investigate the sustainability of harvest.

Schedule 13 Part 1

Group 1

There are no species currently listed in this group.

Group 2

Species in this group are either slow growing or have a large percentage of material removed during harvest. It is a minimum requirement that those who harvest species in this group will establish a photographic point for monitoring (section 3.6.1).

In addition, OEH may impose any or all of the requirements in section 2.2 on any picker or wild harvest licence.

Group 3

These species are commonly harvested in the wild, are in high demand and a large percentage of the plant material may be removed. Wild harvest and grower licences, may be issued.

Licensees must, as a minimum requirement, establish a fixed photographic point (section 3.6.1). OEH may impose any or all of the requirements in section 3.2 on any picker or wild harvest licensee.

In consultation with the CFICC, OEH will identify species for research on harvesting and may collaborate with an industry partner or tertiary institution; the involvement of pickers and growers will be welcome.

Group 4

Only grower and wild harvest licences are issued for species in this group, which has a higher level of regulation than Groups 2 to 3. Harvest reports, including photographic monitoring, must be submitted as a requirement of licence conditions. Species in this group require NPWS or grower tags; NPWS tags will improve data collection and harvest monitoring.

Group 5

Only grower licences will be issued. No harvest levels are set.

3.6.3 Data management

OEH, through the CFICC, will undertake the collation of all plant licensing data on a yearly basis. These data will include licence applications and data supplied on harvest returns, and will facilitate the evaluation of harvest levels and licensing strategies. All NPWS area offices will be required to report to the Wildlife Licensing

and Management Unit of OEH, providing information on the licences issued each financial year.

Records provided to OEH by pickers and wild harvesters will be confidential; however, aggregated data will be made available to the CFICC and to the community.

3.7 Industry and institutions

OEH will encourage and support research by government authorities, institutions, the nursery industry and individuals, and may undertake or commission research, with priority given to threatened species. OEH is committed, through the provisions of the TSCA, to priority actions for species at risk, including recovery and threat abatement planning.

This management plan will not curtail the wild picking of native plants or plant parts for scientific research which may cover taxonomy, reproductive biology, species identification for environmental or biodiversity surveys, and chemical composition, and which has been appropriately licensed by OEH with a scientific licence under either section 132C of the NPWA or Part 6 of the TSCA.

3.8 Research for future management

Knowledge of the populations, numbers and reproductive biology of protected and threatened plants in NSW is limited, and consequently OEH adopts a conservative approach to harvesting. The development of a code of practice for taking and using protected plants will identify risks associated with harvesting and link to OEH and DSEWPC guidelines.

OEH is satisfied this plan will manage the threat to the conservation of any species as a consequence of its commercial use. There are, however, gaps in scientific knowledge of some protected and threatened species that are used commercially. The following areas have been identified for further research:

- population estimates and distributions of all protected and threatened plants to allow the scientific determination of key habitats and ecologically sustainable levels of harvesting
- reproductive biology of priority species to establish recruitment to determine the effect of harvesting or to establish management practices, such as prescribed fires
- the significance of repetitive harvesting of cut flowers from single plants, such as *Xanthorrhoea* spp. which have been protected only since 2002, which requires ongoing monitoring. It is a high priority for OEH to assess the sustainability of traditional harvesting.

3.9 Education and training

This management plan is both an information resource and a training tool and provides detailed information on OEH requirements for conservation and compliance.

For the cut-flower industry and the community, this plan communicates OEH's management strategies. OEH will develop fact sheets in consultation with the cut-flower industry. These will summarise legislative requirements, explain the biodiversity value of native plants, particularly threatened species, and seek public cooperation in native plant conservation.

- OEH will continue to promote conservation agreements with private landholders to conserve native plant populations. These agreements are voluntary but binding.
- OEH will make participants in the cut-flower industry aware of their responsibilities under the NPWA and the TSCA through this management plan.
- OEH will liaise with other industry stakeholders to identify and, where necessary, develop educational and training material for specific industry sectors.
- To facilitate consistency between Australian states and territories OEH will, where appropriate, include details of any relevant national code or guideline into its management plans.

4 General tagging, assessment, monitoring and compliance

Specific details relating to licensing requirements for each licence type are in Appendices B to D.

4.1 Licensing of sellers

Those who on-sell protected and threatened plants do not require a licence from OEH. Licensing conditions only apply to the source of plant material – pickers, harvesters or growers. Therefore, wholesalers and florists do not require a licence for the possession and sale of protected or threatened plants.

Wholesalers or retailers are required to obtain their plants from NSW licensed pickers, harvesters or growers or from legitimate interstate sources (section 3.1.4).

4.2 Licence fees

Licence fees vary depending on the costs incurred by OEH associated with inspecting and monitoring sites. The standard application fees outlined in Appendix N are current at the time of publication of this management plan and are subject to change without notice.[8] The licence application fee is to be paid on lodgement of the application and is not refundable if the application is refused or withdrawn.

4.3 Tagging requirements

Tagging may be a label, sticker, sleeve or markings on a plant container. Tagging is an effective way to ensure continuity of possession once protected plants are sold, particularly when they are on-sold many times. Effective tagging can identify whether plants have been legally picked and is a useful guide for consumers that permits them to choose between bush-picked and cultivated plants.

As tagging is expensive and time consuming, plants that require tagging are restricted to species at high conservation risk, in high demand or associated with illegal picking (Groups 4 and 5).

For all Group 3 plants:

- tagging is not required
- wild harvesters and growers are required to keep records and receipts of sales.

For all Group 4 plants:

- NPWS tags (section 4.3.1) are required for all material.
- a DSEWPC export permit will be required unless the species is in the DSEWPC List of Exempt Native Species
- a grower licensee who harvests species from artificially cultivated stock may attach a grower tag in addition to a NPWS tag
- *Doryanthes excelsa* and *Xanthorrhoea* spp. flower spike stems require one NPWS tag per stem.

For all Group 5 plants:

- these require grower tags.

[8] www.environment.nsw.gov.au/wildlifelicences/PlantLicenceDetails.htm

Relatively few NPWS tags will be issued for Group 5 species. No picker or wild harvest licences will be issued as these species are either rare in the wild or in very high demand in the cut-flower industry. Many species in Group 5 have a market value upon reaching maturity, where they are propagated successfully and the demand for plants from the wild is minimal, putting species in the wild at low risk. Once there are enough growers of a species and the market is considered mature, naturally occurring plants will not be considered at risk of exploitation and such species may be reclassified and listed in Appendix O.

All threatened species, not otherwise listed in Schedule 13 of the NPWA and harvested by grower licensees from artificially cultivated plants, will require grower tags. Generally NPWS tags will not be issued for threatened plants as no picker or wild harvest licences will be issued to harvest them; however, where the licensee cannot produce a grower tag OEH may issue one.

It is the responsibility of the licensee to ensure that tags are affixed to bunches, individual stems or their containers before being offered for sale.

Tags attached legally to protected and threatened plants from another state will have the same legal status as NPWS or grower tags in NSW.

The wholesaler may remove tags if a bunch is split for sale to a retailer or an end user. In this case tags must either be destroyed by the end user or returned to OEH for destruction. Tags cannot be reused.

4.3.1 NPWS tags

These are tags produced by OEH, prefixed and numbered so that the origin of plant parts can be traced. Colour-coded tags may be produced by OEH for different growing seasons or plant species. Other details as required can be included on the tag to assist identification of plants. Every NPWS tag will include the OEH/NPWS logo and ‘bush picked’, ‘plantation grown’ or other descriptions of origin. Tags can be issued to any licensee for species that require tags and will be issued either upon granting of the licence or on request throughout the growing season.

To minimise the likelihood that tags can be reused or traded on species for which they were not issued, species details may be included on tags. Licensees who require tags may either pay for, and receive all the tags allocated to their licence at the start of the season, or be issued with tags on request throughout the season so that losses for overestimating production can be minimised.

OEH will charge a fee for each tag; this fee may be scaled to encourage wild harvesters and growers. Information about tags and costs can be found on the OEH website[9] as costs may vary from time to time. It is expected that NPWS tags for cut-flower products will be around 15–20 cents per tag. OEH may include a premium on tags for some products.

All parts of protected native plants harvested from state forests requiring tags are to be tagged either in bunches or individual stems, depending on the species. These will be NPWS tags paid for when the licence is issued and in quantities endorsed by Forests NSW.

Pickers and wild harvesters are to affix NPWS tags on bunches or individual stems at the picking site.

---

http://www.environment.nsw.gov.au/wildlifelicences/CommercialUseOfNativePlants.htm

A picker or grower may apply to OEH to replace tags that have been lost or damaged, but satisfactory evidence must be produced before tags are re-allocated.

If tags are not used within the life of the tag they must be returned to OEH and may be exchanged for valid tags. OEH may charge a fee to cover costs, but there will be no additional processing fee.

4.3.2 Grower tags

These tags can only be used by grower licensees who harvest protected or threatened plants from artificially cultivated plants. They are printed or written by either the grower or a professional industry association.

The term 'tag' should not confuse growers into thinking that any tag will fulfil licence conditions, as the information on the tag is more important than its appearance. Tags can take the form of a sticker, label or sleeve, and may be attached to plant parts or containers that hold the plant parts, such as boxes. There are no specific details that must be recorded on the tag; however, there must be sufficient information to trace the product to its origin. Suggested details include species botanical name, the term 'plantation grown' and the name of the supplier.

An applicant for a grower licence will also be applying for authorisation to print or write tags, instead of purchasing NPWS tags. This authorisation will be a licence condition and will be granted when OEH is satisfied that the applicant has the necessary experience, equipment and area under cultivation. The authorisation will apply to plants raised from seed or other propagating material, including division of a larger plant.

A grower tag must not be placed on a plant or plant part that has been picked under a picker or wild harvest licence. Penalties apply for breaching the conditions of a licence.

A major aim of this management plan is to ensure that only legally harvested plants or plant parts enter the cut-flower industry. This will be achieved by:

- licence conditions
- tagging requirements
- harvest records
- monitoring of markets
- site inspections.

OEH will undertake inspections of licensed pickers, growers and sellers to ensure the requirements of this plan are being adhered to. Members of the public will be encouraged to report untagged plants offered for sale.

Breaches of the legislation or this management plan will be investigated.

4.4 Record keeping requirements

All licensees are to keep records of plants harvested under licence.

Harvest records are to be up-to-date and forwarded to the local OEH office at the end of the growing season, at the end of the licence period, or as may otherwise be required by licence conditions. Records must contain the botanical name of the species harvested, the date of harvest, the quantity harvested and, for pickers, the location.

The purpose of record keeping is two-fold. First, it ensures continuity of possession once plants have been on-sold by the picker or grower. Second, it provides accurate data on where, when, what and how much is being harvested. This information will help ensure harvesting continues to be ecologically sustainable and will assist OEH in meeting its conservation objectives and planning in the cut-flower industry.

4.5 Field inspections

OEH will inspect properties that are subject to picker and wild harvest licence applications to verify the availability of species. There will also be random inspections of properties for which licences have been granted to ensure that picking complies with this management plan and licence conditions. Records maintained by licensees may also be inspected. Reports of all inspections will be prepared and details recorded in a database.

4.6 Statewide database

The Wildlife Licensing and Management Unit of OEH will maintain a database of all picker, wild harvest and grower licences issued, including details of plant species, numbers picked and grown, and inspections. The unit will compile an annual report on the commercial use of protected and threatened species.

4.7 Reports

Reports on the implementation of this management plan will be provided to DSEWPC and published on the OEH website.

Special reports to DSEWPC will include any changes to:

- the Schedules of protected or threatened species
- legislation relating to the picking of wild-growing and cultivated protected or threatened plants
- requirements for the issue of licences, authorities and related matters such as tagging.

Annual reports to DSEWPC will include details of:

- implementation of this plan
- harvest quotas and the data on which they were based
- the number of licences issued and the level of harvesting
- statistics showing the number and type of offences detected, and action taken.

4.8 Plant trading exceptions

4.8.1 Trading unprotected plants

While more than 600 native plant species have been listed as protected or threatened under the NPWA and the TSCA, all other native plants that occur naturally in NSW are not protected.

Many of these species have virtually no horticultural appeal or are extremely common in the wild, and harvesting does not impact on their conservation. Accordingly, they are not subject to any restrictions for picking, growing or tagging.

OEH needs to ensure that a species which enters the cut-flower trade is quickly appraised to determine whether it should be included in the licensing system. Under

the present legislation, any such species would be added to Schedule 13 Part 1 of the NPWA.

4.8.2 Trading plants from interstate

Protected and threatened plants imported from interstate are subject to the same legislative requirements as those picked or grown in NSW. Interstate import licences for species in Schedule 13 Part 1 Groups 3 and 4 may be required under section 132A of the NPWA for importation into NSW. An import licence authorises possession and sale in NSW.

If the imported plants require a licence or tag under the legislation of the state or territory of origin, and the relevant licence or identifying tag or labelling is not present, OEH will take appropriate action relating to illegal possession. Authorities in the state or territory of origin of the plants will be notified.

If the imported plants do not require a licence or tag from the state or territory of origin, the importer must satisfy OEH that the plants have been picked from a legal source and they must be appropriately tagged as required under this management plan as if they were picked or grown in NSW.

4.8.3 Traditional use

Clause 65 of the National Parks and Wildlife Regulation 1995 provides an exemption to section 117 of the NPWA so that Aboriginal people and their dependents may gather or harvest from certain lands and have in their possession the fruit, flowers or other parts of protected native plants for domestic purposes. This exemption does not extend to commercial use of native plants or plant parts.

Appendix A: Schedule 13 – Protected native plants

Part 1: Plant parts used in the cut-flower industry

Scientific name	Common name(s)
Group 1	There are no species currently listed in this group
Group 2	
Adiantum spp.	Maidenhair fern
Archontophoenix cunninghamiana	Bangalow palm (foliage only)
Baeckea linifolia	Weeping baeckea
Baeckea virgata	Twiggy heath myrtle, tall baeckea
Banksia spinulosa	Hairpin banksia
Cassinia aureonitens	Yellow cassinia
Caustis spp., native to NSW	Curly sedges, old man's whiskers
Cordyline stricta	Narrow-leaved palm lily
Crowea exalata	Crowea
Crowea saligna	Crowea
Davallia pyxidata	Hare's foot fern
Dodonaea lobulata	Lobed-leaved hop bush
Eriostemon spp. native to NSW (unless listed under the TSCA)	
Gahnia sieberiana	Red-fruited saw sedge
Isopogon spp., native to NSW	Drumsticks, cone bushes
Kunzea ambigua	Tick bush
Kunzea capitata	Pink kunzea
Leptospermum lanigerum	Woolly tea-tree
Leptospermum rotundifolium	Round-leaf tea-tree
Livistona australis (foliage only)	Cabbage tree palm, fan palm
Lomatia silaifolia	Crinkle bush
Persoonia spp., native to NSW (except *P. pinifolia* and all species listed under the TSCA)	Geebungs
Petrophile spp., native to NSW	Conesticks
Phebalium squamulosum	Scaly phebalium
Philotheca spp., native to NSW (except *P. obovalis* and all species listed under the TSCA)	Philotheca

Ptilotus exaltatus	Tall mulla mulla
Ptilotus obovatus	Smoke bush, cotton bush
Pycnosorus spp., native to NSW	Billy-buttons
Restio tetraphyllus	Tassel-rush
Sprengelia incarnata	Pink swamp heath
Sticherus flabellatus	Shiny fan-fern, umbrella fern
Swainsona formosa	Sturt's desert pea
Tmesipteris spp., native to NSW	Ferns
Xanthorrhoea spp. (foliage only)	Grass trees
Xylomelum spp., native to NSW	Woody pear
Zamiaceae, native to NSW	Cycads
Group 3	
Actinotus spp., native to NSW (except *A. minor*)	Flannel flower
Boronia spp., native to NSW	Boronias
Doryanthes excelsa (foliage only)	Giant lilies
Eriostemon australasius	Wax flower
Lycopodium spp., native to NSW	Mountain moss
Persoonia pinifolia	Pine-leaved geebung
Philotheca obovalis	Wax flower
Group 4	
Blandfordia spp.	Christmas bells
Doryanthes excelsa (flowers only)	Giant lily
Xanthorrhoea spp. (flowers only)	Grass tree
Group 5	
Boronia deanei	Dean's boronia
Boronia umbellata	Boronia
Craspedia spp., native to NSW	Billy buttons
Dicranopteris linearis	
Doryanthes palmeri	Spear lily
Grevillea longifolia	Fern-leaf grevillea
Isopogon fletcheri	
Leptospermum spectabile	
Macrozamia johnsonii	Cycad
Macrozamia pauli-guilielmi spp.	Cycad

flexuosa	
Persoonia spp.	Geebung
Phebalium bifidum	
Phebalium glandulosum spp. *eglandulosum*	
Philotheca ericifolia	
Philotheca obovatifolia	Native daphne, long-leaf wax flower
Telopea spp., native to NSW	Waratah
All other species of plant listed in Schedule 1, 1A or 2 to the TSCA, unless otherwise listed in this Schedule	
All other species of plant included in the list of threatened species, as amended from time to time, established under section 178 of the EPBCA of the Commonwealth and published in the Commonwealth of Australia Gazette	

Part 2 of Schedule 13 of the NPWA is not relevant to the cut-flower industry, so it is not reproduced in this plan.

Appendix B: Picker licence requirements, conditions and forms

The following requirements and conditions are current at the time of publication and are subject to change at any time.

1 Picker licences are issued by OEH under section 131 of the NPWA.

2 Picker licences are issued for a maximum period of one year.

3 Harvest returns must be submitted no later than one month from the anniversary of the licence start date.

4 Licences will not be renewed until harvest returns are submitted.

5 Picker licences are required for those who pick protected native plants from another's property for the commercial cut-flower or related industry. A picker licence for protected native plants on private land is not required for non-commercial purposes if the picker has the consent of the owner, occupier or lessee of the land.

6 Picker licences will not be issued for harvesting threatened species, endangered populations or ecological communities, or as otherwise specified in this plan.

7 A picker licence may only be issued to a person, company or body corporate. A licence cannot be issued to a trading name or partnership. In the case of a partnership the licence may be issued in the name of a partner and the existence of a partnership may be acknowledged on the licence such as 'James Buck (for and on behalf of James Buck, Nicole Doe and Tim Fawn)'.

8 Where a person, company or partnership employs people to pick, each person must be included in the licence. The applicant will be required to provide the full name, birth date, address and a passport quality photograph for each person nominated.

9 Licence holders and all those acting on their behalf are to pick all wild sourced plant parts according to the relevant guidelines or as set down by the proposed code of practice for the taking and use of protected plants.

10 Pickers and each person working on their behalf are to keep a copy of the licence either with them or immediately accessible while picking.

11 Tags are not required for those species that may be taken under a picker licence

12 Picker licences are required for picking in state forests or other Crown land. A Forests NSW forest product licence will also be required to pick in state forests. The picker licence is to be accompanied by and used in conjunction with a forest product licence issued under the *Forestry Act 1916*.

General licence conditions

1 The licensee shall only pick protected native plants on the land specified and described on the licence.

2 The licensee and pickers must only pick the species of protected native plants and in quantities up to those specified in the licence.

3 It is the responsibility of the applicant to confirm the identification of the species they intend to pick. Where this is in doubt the species should be formally identified through a recognised authority such as the NSW Herbarium.

4 When requested, the licensee shall produce the licence to any authorised officer or any owner, occupier or lessee of the land specified and as described on the licence.

5 The licensee and pickers must pick the protected native plant parts according to any applicable guidelines and the proposed code of practice for the taking and use of protected plants.

6 The licensee and pickers must keep a copy of the licence either on their person or within their immediate possession while picking. A period of time will be permitted after granting of the licence for the licensee to nominate pickers, particularly as most are itinerant. This will not be considered a licence variation.

7 The licensee and pickers must, on request, produce the licence to an authorised officer or any owner, occupier or lessees of the land specified on the licence.

8 The licensee shall produce the licence to all persons who buy or receive protected or threatened plant parts from the licensee.

9 Plant parts that require tagging must be tagged on the land specified and described on the licence prior to being transported.

10 Any place where plants are picked, stored or processed are to be made available for inspection upon request by an authorised officer.

11 The licensee must comply with any requirements in this management plan as amended or replaced from time to time.

12 Receipts for protected native or threatened plant sales will be kept for a minimum period of two years. The licensee will make these receipts available for inspection upon request by an authorised officer.

13 The licensee must forward to the NPWS local area office a copy of harvest records for the licence period no later than 28 days after the licence has expired. No new licence will be granted until the harvest report has been submitted.

14 The licensee will establish a fixed photographic point which covers a representative area of the harvest area. The photographic point is to be marked in the field by a permanent marker and include the licensee's licence number.

15 Photographs must be taken immediately before and after picking at each site. These photographs must be provided to the NPWS local area office at the completion of the harvest.

16 Applications for a licence renewal will not be granted until photographic point conditions have been fulfilled.

17 The licensee agrees to indemnify, and keep indemnified, the Crown in right of NSW (OEH), the NSW Minister responsible for administering the NPWA, the Director General, and their employees, agents and contractors, in the absence of any wilful misconduct or negligence on their part, from and against all actions, demands, claims, proceedings, losses, damages, costs (including legal costs), charges or expenses suffered or incurred by them resulting from:

- any damage or destruction to any real or personal property
- injury suffered or sustained (including death) by any persons arising out of or in connection with the activities undertaken pursuant to this licence.

18 The licensee agrees to release to the full extent permitted by law, the Crown in right of NSW (OEH), the NSW Minister responsible for administering the NPWA, the Director General, and their employees, agents and contractors, in the

absence of any wilful misconduct or negligence on their part, from all suits, actions, demands and claims of every kind resulting from:

- any damage or destruction to any real or personal property
- injury suffered or sustained (including death) by any persons arising out of or in connection with the activities undertaken pursuant to this licence.

19 Licences cannot be transferred.

Making an application

Applications for a picker licence must be made using the application form available on the OEH website.[10]

The applicant must provide the following:

- Full name, address, contact telephone numbers and photograph of the applicant.
- The full name, address, contact telephone number and photograph of all those working for the applicant.
- The name address, contact telephone number and signature (acknowledging permission) of the landowner, occupier or lessee for each parcel of land, where appropriate.
- Proof of land ownership (for wild harvest licences only) − a copy of the land title or council rates will suffice.
- A full description of the properties that will be picked from, including a sketch map showing access from the nearest town to the property on which the picking will be undertaken, including geographical information such as latitude and longitude.
- A sketch map showing the approximate location of the protected native plants on the property that would assist an inspecting officer to locate the site.
- A sketch map showing the location of the photographic point and a description of the marker.
- A list of the species to be picked and the proposed quantities. Quantities may be recorded in either stem numbers or bunches but information on the number of stems per bunch must be supplied.
- A population estimate for each of the target species as set out in Appendix K. Plots may include several species.
- An estimate of the total annual harvest.
- The location where the picked plant parts will be processed and stored.
- A record of any approval from appropriate authorities for land clearing or other major disturbance.
- A statement of whether the property is managed under a conservation agreement or other covenant.
- A statement on the likely impacts of the proposed harvest and proposed mitigation measures.
- Whether there have been recent changes to the area proposed to pick from, for example from fire or land clearing.
- Signature of the applicant and date.
- The application fee.

[10] www.environment.nsw.gov.au/wildlifelicences/PlantLicenceDetails.htm

All applicants are to be aware that the properties they are picking from may be inspected either before or after a licence is granted. They are also to be informed of licence fees, the address for submission of applications and reports, and any relevant offence provisions under the NPWA with respect to protected and threatened species. This information is to be included on all application forms and licences.

The applicant must be able to demonstrate that the proposed harvest is sustainable. Any reasonable restriction or limitation can be placed on a picker licence to ensure that the harvest is sustainable.

Licence applications will be considered on their merits, but licences will be issued only if the proposed activity is, as assessed by the authorised officer, sustainable.

Appendix C: Wild harvest licence requirements, conditions and forms

The following requirements and conditions are current at the time of publication and are subject to change at any time:

1 Wild harvest licences are issued by OEH under section 131 of the NPWA.

2 Wild harvest licences are issued for a maximum period of one year.

3 Harvest returns must be submitted no later than one month from the anniversary of the licence start date.

4 Licences will not be renewed until harvest returns are submitted.

5 Wild harvest licences are required by those who harvest protected native plants from naturally growing stands on the licensee's land for the cut-flower or related industry. A wild harvest licence may only be issued to the owner of the property.

6 All wild harvesters must be licensed in order to sell protected or threatened plant parts, grown or artificially cultivated on their own property. If a wild harvester is harvesting from both wild and cultivated stock then two licences will be required, but only the fee for the wild harvest licence will be applied.

7 Wild harvest licences will not be issued for harvesting threatened species, endangered populations or ecological communities or as otherwise specified in this management plan.

8 A wild harvest licence may be issued to a person, company or body corporate. A licence cannot be issued to a trading name or partnership. In the case of a partnership, the licence may be issued in the name of a partner and the existence of a partnership may be acknowledged on the licence such as 'James Buck (for and on behalf of James Buck, Nicole Doe and Tim Fawn)'. Where the application is not for an individual, one of the parties must be the owner of the property.

9 Where a person, company or partnership is an employer, each person who is authorised to harvest must be nominated for inclusion in the licence. The applicant will be required to provide the full name, birth date, address and a passport-quality photograph for each person who harvests.

10 The applicant must be able to demonstrate that harvesting can be sustainable.

11 Licence holders and all those acting on their behalf are to harvest all wild plants according to any relevant guidelines or as set down by the proposed Code of Practice for the Taking and Use of Protected Plants.

12 Wild harvesters are to keep a copy of their licence at the property where the plants are harvested.

Tagging requirements

Upon granting of a licence, the licensee is required to specify and pay for the NPWS tags required within the initial three-month period of the licence; tags will then be printed. Additional tags may be requested from the NPWS office issuing the licence up to the quantity set on the initial application. A period of two weeks must be allowed for a request to be processed, and tags must be paid for prior to printing.

Tags will be printed by the Wildlife Licensing Management Unit of OEH once a licence has been issued. If insufficient NPWS tags are issued, the licensee should

contact the NPWS office which issued the licence. The authorised officer can request additional tags be printed as appropriate.

Unused tags should be returned to OEH and may be exchanged for valid tags. The cost of unused tags will not be refunded; OEH may charge a fee to cover costs and no additional processing fee will apply.

All protected plants requiring tags are to be tagged either in bunches or individual stems, depending on the species. These tags are to be attached on site and are not to be re-used.

General licence conditions

1 The licensee may only harvest approved species of protected native plants in quantities up to those specified in the licence.

2 The licensee may only harvest the species of protected native plants as specified and described on the licence.

3 It is the responsibility of the applicant to confirm the identification of the species that they intend to pick. Where this is in doubt the species should be formally identified through a recognised authority such as the NSW Herbarium.

4 The licensee may only harvest protected plants from the land specified and described on the licence.

5 The licensee must comply with any requirements as set down in this plan as amended or replaced from time to time.

6 When requested, the licensee shall produce the licence to an authorised officer or owner, occupier or lessee of the land specified on the licence.

7 The licensee shall produce the licence to all who buy or receive protected or threatened plant parts from the licensee.

8 The licensee agrees to indemnify, and keep indemnified, the Crown in right of NSW (OEH), the NSW Minister responsible for administering the NPWA, the Director General and their employees, agents and contractors, in the absence of any wilful misconduct or negligence on their part, from and against all actions, demands, claims, proceedings, losses, damages, costs (including legal costs), charges or expenses suffered or incurred by them resulting from:

- any damage or destruction to any real or personal property
- injury suffered or sustained (including death) by any persons arising out of or in connection with the activities undertaken pursuant to this licence.

9 The licensee agrees to release, to the full extent permitted by law, the Crown in right of NSW (OEH), the NSW Minister responsible for administering the NPWA, the Director General, and their employees, agents and contractors, in the absence of any wilful misconduct or negligence on their part, from all suits, actions, demands and claims of every kind resulting from:

- any damage or destruction to any real or personal property
- injury suffered or sustained (including death) by any persons arising out of or in connection with the works undertaken pursuant to the licence.

10 Plant parts that require tagging must be tagged on the land specified and described on the licence prior to being transported.

11 Any place where plant parts are to be picked, stored or processed are to be made available for inspection on request by an authorised officer.

12 Receipts for all sales will be made and those records will be kept for a minimum period of two years. The licensee will make these receipts available for inspection on request from an authorised officer.

13 The licensee shall forward to the NPWS area office a copy of harvest records for the licence period no later than 28 days after the licence has expired. No new licence will be granted until the harvest report has been submitted.

14 The licensee will establish a fixed photographic point which covers a representative part of the harvest area. The photographic point is to be marked in the field by a permanent marker and include the licensee's licence number.

15 Photographs are to be taken immediately before and after picking at each site. These photographs must be provided to the NPWS local area office at the completion of the harvest.

16 No licence renewal will be granted until photographic point conditions have been fulfilled.

Making an application

Applications for a wild harvest licence must be made using the application form on the OEH website.[11]

An applicant must supply the following:

- their full name, address, contact phone numbers and photograph
- full name, address, contact phone number and photograph of all those working for the harvester
- the name of the property owner; if this is not the applicant then a picker licence is required
- a description of the properties that will be harvested including a sketch showing access from the nearest town, including geographical information such as latitude and longitude
- a map to assist an authorised officer to locate the plants to be harvested
- a map showing the photographic point and a description of the marker
- a list of species and quantities to be harvested; quantities may be recorded in either stem numbers or bunches, including number of stems per bunch
- a population estimate for each of the target species; plots may include several species (Appendix K)
- an estimate of the total annual harvest
- an estimate of either total numbers of target species or the area they occupy
- where the picked plant parts will be processed and stored
- a record of any approval for land clearing or other major disturbance
- details if the property is managed under a conservation agreement or other covenant
- a statement of predicted impacts of the proposed harvest
- details of any recent changes to the harvest area, for example fire or land clearing
- measures for damage mitigation
- signature of the applicant and date.

[11] www.environment.nsw.gov.au/wildlifelicences/PlantLicenceDetails.htm

All applicants are to be informed that the properties they harvest may be inspected either before or after a licence is granted. They should also be made aware of the licence fees, the address for submission of applications and reports, and any relevant offence provisions under the NPWA with respect to protected and threatened species. This information is to be included on all plant licence application forms.

The applicant must demonstrate that the proposed harvest is sustainable. Any reasonable restriction or limitation can be placed on a wild harvest licence by an authorised officer to ensure the harvest is sustainable.

Licence applications will be considered on their merits, but they will only be issued if the proposed wild harvest is sustainable from the applicant's property.

A copy of the land title or council rates will suffice as proof of ownership.

Appendix D: Grower licence requirements, conditions and forms

Grower licences concern the harvest of flowers or foliage from cultivated plants. The following requirements and conditions are current at the time of publication and are subject to change at any time:

1 Grower licences are issued by OEH under section 132 of the NPWA.

2 Grower licences are issued for a maximum period of five years.

3 Harvest returns must be submitted no later than one month from the anniversary of the licence start date.

4 Licences may be cancelled or not renewed if harvest returns are not submitted.

5 Grower licences are required by those who harvest from cultivated protected native plants by either the owner or occupier of the land for the commercial cut-flower or related industry. A grower licence to harvest protected native plants on private land for non-commercial purposes is not required. No harvest levels will be set for grower licences.

6 If a grower is harvesting both from the wild and from artificially cultivated stock then two licences will be required.

7 Grower licences may be issued for harvesting cultivated threatened species, endangered populations or ecological communities, or as otherwise specified in this management plan.

8 A grower licence may only be issued to the property owner, whether a person, company or body corporate. A licence cannot be issued to a trading name or partnership. In the case of a partnership the licence may be issued in the name of a partner and the partnership acknowledged on the licence, for example 'James Buck (for and on behalf of James Buck, Nicole Doe and Tim Fawn)'.

9 Where a person, company or partnership has employees cultivating stock, the licensee must maintain a signed register of all persons authorised to act on their behalf. This register must include the employee's full name, date of birth and current address.

10 Licensees and all those acting on their behalf are to grow plants according to relevant guidelines.

11 Growers must keep a copy of their licence at the property where the plants are grown.

Tagging requirements

Grower tags, stickers or sleeves are used for identifying protected or threatened plants harvested from artificially cultivated plants.

Grower licensees may use grower tags instead of NPWS tags. The tags may take the form selected by the grower; for example, a paper tag, a sticker or sleeve. These tags are printed or written by the grower or a professional industry association to which the grower belongs.

Grower tags must contain sufficient details to permit the product to be traced to its origin. A suggested set of details includes species botanical name, the term 'plantation grown' and the name of the supplier.

Each grower licence may include several species and will contain varying conditions.

If grower licensees choose to use NPWS tags, they must specify and pay for the tags required for the initial three months of the licence. Additional tags, up to the number specified on the application, can be obtained throughout the licence period from the NPWS office where the application was lodged. Tags must be paid for when they are requested and processing them will take up to two weeks. NPWS tags will be printed by the Wildlife Licensing Management Unit of OEH once a grower licence has been issued.

Unused tags should be returned to OEH and may be exchanged for valid tags. The cost of unused tags will not be refunded; however, OEH may charge a fee to cover costs and no additional processing fee will apply.

All plants requiring tags are to be tagged on site after picking, either in bunches or stems, depending on the species.

Plants that require tagging must be tagged on the site specified on the licence before being transported to another location.

General conditions

1 The licensee may only grow the plants specified on the licence.

2 All plants requiring tags are to be tagged individually or in bunches or according to the conditions in this management plan for sale within Australia. Export sales may be tagged in the units in which they are usually sold.

3 It is the responsibility of the applicant to confirm the identification of the species that they intend to pick. Where this is in doubt the species should be formally identified through a recognised authority such as the NSW Herbarium.

4 No harvest levels will be set for material harvested under a grower licence.

5 The licensee is to keep a copy of their licence at the property where the plants are grown.

6 The licensee must produce the licence to any authorised officer or any owner, occupier or lessee of the land specified on the licence.

7 The licensee must produce the licence to all persons who buy or receive protected or threatened plants from the licensee.

8 Any place where plants are to be picked, stored or processed is to be available for inspection upon request by an authorised officer.

9 The licensee must comply with any requirements in this plan as amended or replaced from time to time.

10 Receipts for all sales must be kept for a minimum period of two years. The licensee must make these receipts available for inspection upon request from an authorised officer.

11 The licensee must forward to the NPWS area office a copy of harvest records for the licence period no later than 28 days after the licence has expired. No new licence will be granted until the harvest report has been submitted.

12 The licensee agrees to indemnify and keep indemnified, the Crown in right of NSW (OEH), the NSW Minister responsible for administering the NPWA, the Director General, and their employees, agents and contractors, in the absence of any wilful misconduct or negligence on their part, from and against all actions, demands, claims, proceedings, losses, damages, costs (including legal costs), charges or expenses suffered or incurred by them resulting from:

- any damage or destruction to any real or personal property
- injury suffered or sustained (including death) by any persons arising out of or in connection with the activities undertaken pursuant to this licence.

Making an application

Applications for a grower licence must be made using the application form on the OEH web site.[12]

Prospective growers are encouraged to contact their local NPWS area office as early as practical regarding their licensing requirements. This will ensure that growers are aware of the current licensing systems as early as possible. NPWS area offices can assist with information relating to the licensing and tagging requirements for the species being propagated.

An applicant must supply the following:

- their full name, address, contact phone numbers and photograph
- a list of the species to be grown and the proposed quantities
- full name, address, contact phone number and signature (acknowledging permission) of the landowner, occupier or lessee of each parcel of land, where appropriate, used for cultivation
- a full description of each property where the plants will be grown, including a sketch showing access from the nearest town to the property
- an estimate of the total annual harvest
- the area under cultivation
- where the plants will be processed and stored
- any approval for land clearing or other major disturbance
- details if the property is managed under a conservation agreement or other relevant covenant
- a statement relating to the predicted impacts of the proposed cultivation
- details of any recent changes to the area such as fire or land clearing
- signature of the applicant and date.

All applicants are to be informed that the properties where they are growing may be inspected either before or after a licence is granted. They are also to be made aware of the licence fees, the address for submission of applications and reports and any relevant offence provisions under the NPWA with respect to protected and threatened species. This information is to be included on all plant licence application forms.

A copy of the land title or council rates will suffice as proof of ownership.

[12] www.environment.nsw.gov.au/wildlifelicences/PlantLicenceDetails.htm

Appendix E: Processing of licence applications

The following requirements for the processing of licence applications are current at the time of publication and are subject to change at any time.

If the applicant has identified that they intend to export their product to an international market they are required to contact DEHWA as OEH does not have a role in this process.

Picker, wild harvest and grower licence applications are to be lodged with the relevant NPWS area office, either personally or by mail. The fee for the licence is to be paid at the time of lodgement of an application. The fee for these licences will not be refunded if the application is refused. A period of 45 days should be allowed for processing an application.

A standard inspection report form will be incorporated into the application forms. Applications for harvesting protected and threatened species for cut flowers will be processed at the OEH management level.

Authorised officers will conduct initial inspections to ensure the proposed activities are ecologically sustainable. Inspections also ensure the applicants have appropriate plantation plants, processing and storage facilities.

Authorised officers may refuse to grant applications, impose restrictions through licence conditions, alter conditions after the granting of a licence, or cancel an existing licence. They must follow administrative procedures, including consultation with the applicant or licensee when making any of these decisions. The applicant or licensee has a right of appeal to the NSW Minister responsible for the environment as set out in section 135 of the NPWA and Regulations. When assessing an application, if the authorised officer is unsure of the sustainability of the proposed harvest, the applicant may be required to seek an independent review by a person with relevant expertise whose advice will be considered when making a decision on whether to grant a licence.

In assessing applications for licences, the authorised officer must:

- assess the accuracy of the information provided by the applicant
- check the conservation status of the species proposed for harvesting
- check the estimated quantities of plants to be harvested
- check the estimated size of the plant population in proposed harvest sites
- consider the availability of plants from cultivated sources.
- consider any prevailing climatic conditions or other factors, such as feral and native animals
- check whether the applicant has established photographic monitoring sites
- check whether the applicant has the ability to monitor, compare and analyse any changes to the characteristics of the harvest sites
- check that the applicant has taken measures, or has a plan, for damage mitigation
- when assessing grower applications ensure that the area under cultivation and the storage and processing facilities concur with what the applicant has stated by an on-site inspection
- consider the number of years since the last fire affected the harvesting site.

In most cases approval should not be granted for any harvesting within three to five years after fire, depending on the intensity and location of the fire. Some slow

growing species may require 10 years to recover from fire; species where flowering is induced by fire will be exempt from this requirement. Note that rainforests are rarely burnt, but if they have been, they require a reasonable period for recovery and it is likely to be ecologically important than no harvesting of rainforest species occurs soon after fire. For those species that flower after fire, there is often only one or a few flowering seasons, and such seasons represent the only reproductive input for one or two decades.

The licensee may be an individual, a registered company or a body corporate. Licences cannot be issued in the name of a partnership; however, the existence of the partnership and names of the partners can be included in the licence.

If the licensee is not the owner of the specified land, the written consent of each owner is required.

Appendix F: Christmas bells *(Blandfordia cunninghamii, B. grandiflora, B. nobilis)*

- Christmas bells are among the most popular east coast wildflowers. They are slow-growing grass-like plants that produce tubular flowers in groups of six or more on stems up to about 60 cm long. During the flowering period, generally December to January, Christmas bells are frequented by nectar feeding birds, particularly honeyeaters.
- As cut flowers, Christmas bells are in high demand both within Australia and overseas. Due to their popularity as cut flowers, they are a species that tends to be frequently bush picked and over-picked to the extent that localised species extinction has occurred. Damage has also occurred to the surrounding environment through poor picking or habitat modification. In some areas, regular slashing and burning to change the habitat of Christmas bells has altered the species diversity and distribution throughout the whole ecosystem, thereby adversely affecting that ecosystem.
- Christmas bells may be propagated from seed, but seedling growth can be slow. Propagation by tissue culture has not met industry expectations. To ensure the harvest of Christmas bells is sustainable no picker licences will be issued for Christmas bells under this management plan.
- The need for continued licensing of wild-picked Christmas bells will be kept under review.
- Only grower and wild harvest licences will be issued. It is anticipated that by encouraging the industry and market to support the higher quality cultivated flower there will be investment in propagation which will also assist with the conservation of the habitat of these plants.
- Prior to issuing a licence, OEH may carry out an inspection of the land in the licence application to ensure that the proposed harvesting is sustainable.
- A tagging system will operate to monitor harvest levels and distinguish between plants that have been wild harvested or cultivated.

Appendix G: Waratah (*Telopea aspera, T. mongaensis, T. oreades, T. speciosissima*)

- The waratah is an attractive species for the cut-flower market. Its bright red flowers, contrasting deep green foliage and a vase life of up to two weeks have earned it a reputation as being an excellent cut flower. Plants grow to 3 m in height and are usually single stemmed until burnt by fire. After fire the plant reshoots from underground lignotubers and becomes multi-stemmed. Large flowers 15 cm in diameter are common. Birds are the primary pollinators.
- Several waratah cultivars have been developed which are easily identifiable and have pink and white flowers. These still require licensing and grower tags when sold.
- Waratah seed readily germinates, provided the seed is fresh. Germination rates of up to 90% are achievable. It is also possible to propagate from cuttings and by layering and tissue culture. The success of growing new plants appears to be soil related, with the best plants produced in sandy loam with good drainage.
- The cut-flower industry has invested in developing the waratah as a cut flower. Continued development of waratah plantations has reduced the market for inferior quality bush-picked product.
- Conservation concerns are held for this genus in the wild.
- To ensure a sustainable and viable wild population of the species, no picker or wild harvest licences will be issued, but grower licences are available.
- Prior to issuing a licence, OEH may inspect the land nominated in the licence application to ensure that cultivation is sustainable.
- Plants harvested under a grower licence will require only a grower tag or other approved means of identifying the source.
- Material must be tagged with one tag per stem when sold per stem.
- Material must be tagged with one tag per bunch when sold per bunch.

Appendix H: Flannel flower (*Actinotus spp*. excluding *A. minor*)

- Flannel flowers are widely known in Australia due to their contrasting white flowers and flannel-textured grey−green foliage. Highly ornamental, there has been strong interest in their development as cut flowers. Flowering occurs during spring and early summer, often en masse. Large amounts of seed are produced, but only about 70% are viable. Seeds often remain dormant until after fire. Higher rates of establishment are obtained from cuttings taken from cultivated plants. The flannel flower has been described as a pioneer species, growing in abundance after fire. Plants are often short lived, with a life of four to five years.
- Recent research funded by organisations such as the Rural Industries Research and Development Corporation has found that there is scope for supplying the export market with quality cultivated varieties, and a significant amount is now cultivated.
- The picking of flannel flowers from the wild, particularly large amounts from state forests, has been detrimental to the development and sustainability of cultivated crops that were established to meet the cut-flower market demand.
- Variable and often poor harvest quality and short vase life of the bush-picked flower has damaged the reputation of flannel flowers as a premium product. There is also anecdotal evidence that wild harvest is not ecologically sustainable as most reproductive material is removed from the harvest area.
- The need for continued licensing of wild-picked flannel flowers will be kept under review.
- It is anticipated that by encouraging the industry and market to support the higher quality cultivated flowers there will be an investment in propagation of the species. This will also assist with conservation of the habitat of these plants.
- Prior to issuing a licence, OEH may inspect the land proposed in the licence application to ensure the proposed harvest is sustainable.
- Growers are encouraged to use grower tags for material harvested under a grower licence.

Appendix I: Grass trees (*Xanthorrhoea spp.*)

- *Xanthorrhoea* are conspicuous in the Australian landscape. Most species have tall rough stems, sometimes black as a result of fire. They are very slow growing: the growth rate of trunks is about 1–2 cm per year. Long narrow leaves hang from the tops of trunks. Towering sometimes 2 m above the leaves is a white or cream spear-like flower. Flowering can occur in spring, but may not be annual. The best flowering follows fire. *Xanthorrhoea* flowers are attractive to both birds and insects. Aboriginal people use the nectar of the flowers to sweeten drinks and flower spikes as throwing spears.
- Due to the slow rate of growth and unpredictable flowering, harvesting of foliage and flowers of *Xanthorrhoea*, if not done sustainably, could impact on the biodiversity of the harvest area. To ensure the harvest of *Xanthorrhoea* foliage and flowers is sustainable, the following requirements apply.

  a) Licences will restrict harvesting of foliage to a maximum of 25% of green leaves from each plant in any 12-month period.

     - Foliage should not be reharvested until the crown has sufficiently regrown, such that the previously harvested area is hidden below the 'skirt' if the plant.
     - 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 high population density.
     - Harvest with clean hand held secateurs, knives or other implements, and clean these implements before moving to another area.

  b) Although *Xanthorrhoea* flower spikes are common they are in high demand in the cut-flower industry. The flowers contain the entire reproductive material of the plant for at least one year and are an important food source for native animals; consequently their conservation is of concern.

     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.

     To facilitate the calculation of harvest rates and their regulation wild harvesters must adopt a rotational harvesting practice (see Appendix K) to ensure a percentage of the area will have seed set periodically to ensure sustainability.

- If harvest is to be undertaken in state forests, OEH will consult local forestry managers in considering an application. Harvesting will not be permitted on the basis of the issue of a Forests NSW forest product licence alone. Before issuing any licence, OEH and Forests NSW officers may inspect the land from which harvest is proposed to ensure that it is sustainable.
- An assessment will be undertaken to ensure that the applicant has access to sufficient plants to justify the quantity proposed for harvest.
- A tagging system will operate to monitor harvest levels and to distinguish between wild harvested and cultivated products.

1. Flower spikes harvested under a wild harvest licence require a NPWS tag.
2. Flowers harvested under a grower licence require a NPWS tag but may also include a grower tag for product differentiation.

- There is a significant retail and landscaping trade in whole Xanthorrhoea plants that have been removed from natural areas, and this will be covered in a separate management plan.

Appendix J: Gymea lily (*Doryanthes excelsa*)

- Gymea lilies are spectacular plants with large, compact heads of nectar-filled red flowers on tall, thick stems. This species flowers in spring and summer on stems up to 6 m high. Although seed germinates easily, plants grown from seed are slow growing and take up to 10 years to flower. Birds are the primary pollinators.
- This species has a restricted distribution in the wild and this has implications for the harvesting of wild populations.
- The Gymea lily is an increasingly sought-after plant for both flowers and foliage. Presently few plants are cultivated and most material comes from bushland. High monetary returns have created a situation where material is removed illegally from the roadside, private properties and national parks.
- The flower spikes contain the entire reproductive material of a plant for at least one year and are an important food source for native animals, and consequently conservation of the species is of concern.
- Only grower and wild harvest licences will be issued for this species. It is anticipated that by encouraging the industry and market to support cultivation there will be an investment in propagation, which will assist the conservation of these plants.
- It is recommended that wild harvesters adopt rotational harvesting practices (see Appendix K).
- Prior to issuing a licence, OEH may carry out an inspection of the land in the licence application to ensure the proposed harvest is sustainable.
- A tagging system will operate to monitor harvest levels and distinguish between wild harvested and cultivated plants. Two types of tags will apply.
    1. Plants harvested under a wild harvest licence require a NPWS tag.
    2. Plants harvested under a grower licence require only a grower tag or other approved means of identifying the source of material.

Appendix K: Tools for assessing population and harvest numbers for picker and wild harvest licences

An effective data collection strategy will provide a basis for monitoring and adaptive management of harvesting. In this way the commercial use of plants in the cut-flower industry can be managed sustainably.

The species composition of a site will be influenced by its physical environment (including geology and drainage), size, recent rainfall or drought conditions and by its disturbance history (including fire, wind throw and tree fall). Determining a sustainable rate of harvest is dependent upon the provision of data, which may include data on fecundity and growth rate.

The harvesting of plant parts, particularly foliage, can remove nutrients that would otherwise be recycled in the ecosystem. Therefore overharvesting may lead to changes in soil nutrients, which may jeopardise sustainable harvesting of species from these communities.

Repeatedly removing reproductive material, such as flowers, fruit and seeds, can lead to a reduction in genetic diversity and fitness, particularly in species that have long generation times (for example, *Xanthorrhoea* spp.). Reduced genetic diversity may limit the capacity of a species to adapt to environmental changes.

Determining the number of plants per acre or hectare

Step 1: Determine the harvest area

It is easiest to use a map of the area to determine the total harvesting area.

Rotational harvesting is recommended to ensure management practices are ecologically sustainable, especially for species that have large flower stems such as the Gymea lily or grass trees.

Dividing the harvest area into five and not harvesting from one of the five areas each year, rotating the unharvested area each year, will ensure that seed in each area will set. This approach can make managing the area straightforward in determining percentages being picked, as 80% of the land is being harvested. The general harvest must still occur at the recommended rates. This also assists with enforcement as authorised officers can inspect the property and see areas that have not been harvested as there would be seed heads still on the plants on the unharvested area.

Rotational harvesting: area divided into five management areas

Area 1	**Area 2**	**Area 3**	**Area 4**	**Area 5**
Area not harvested in **first** harvest year	Area not harvest in **second** harvest year	Area not harvest in **third** harvest year	Area not harvest in **fourth** harvest year	Area not harvest in **fifth** harvest year

Step 2: Establish at least four plots

Choosing four plots representative of the area proposed for harvesting (20 m × 20 m each) is recommended. Mark each plot using tent pegs and tape or similar means.

Step 3: Establish the number of plants per hectare or acre

In each of the 20 m × 20 m plots (column 1 below) record the number of plants proposed for harvest (column 2 below).

Determine the average number of plants per hectare (10,000 m^2) by multiplying the total number of plants in each plot by 25, and then divide by 4 (column 3 below). To determine the average number of plants per acre, multiply the total number of plants in each plot by 10.1 (one acre is 2.47 hectares) and divide by 4.

Record of plants in the harvest area

Plot # (20 m × 20 m)	Plants per plot (N)	Plants per hectare = N × 25	Comments
1	11	275	
2	14	350	
3	6	150	Mostly young plants
4	12	300	
Total	**43**	**1075 (in 4 ha)**	**268 plants per ha**

NB: figures have been rounded to whole numbers.

In the table above, the applicant proposes to harvest from an area of 4.8 hectares giving a population available for harvest of 1286 plants.

Below is a table to calculate the number of plants per acre or hectare. For a 20 m × 20 m (400 m^2) plot, multiply the number of plants by the number that corresponds to the harvest area.

Harvest area (acres)	Multiply the number of plants in 400 m^2 plots by
1	10.1
½	5.1
¼	2.5
1/8	1.3
Harvest area (hectares)	**Multiply the number of plants in 400 m^2 plots by**
1	25
½	12.5
¼	6.25
1/8	3.125

Appendix L: Key threatening processes

Key threatening processes threaten – or could threaten – the survival or evolutionary development of species, populations or ecological communities.

The key threatening processes listed in the TSCA relate to the conservation of native plants, as described by the Scientific Committee.[14]

- Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands (as described in the final determination of the Scientific Committee to list the threatening process)
- Anthropogenic climate change
- Clearing native vegetation (as defined and described in the final determination of the Scientific Committee to list the key threatening process)
- Competition and grazing by the feral European rabbit, *Oryctolagus cuniculus*
- Forest eucalypt dieback associated with over-abundant psyllids and bell miners
- Herbivory and environmental degradation caused by feral deer
- High-frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition
- Introduction and establishment of exotic rust fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae
- Invasion and establishment of exotic vines and scramblers
- Invasion and establishment of scotch broom (*Cytisus scoparius*)
- Invasion, establishment and spread of lantana (*Lantana camara)*
- Invasion of native plant communities by African olive (*Olea europaea* subsp. *cuspidate*)
- Invasion of native plant communities by exotic perennial grasses
- Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants
- Predation, habitat degradation, competition and disease transmission by feral pigs, *Sus scrofa* (Linnaeus 1758).

[14] www.threatenedspecies.environment.nsw.gov.au/tsprofile/home_threats.aspx

Appendix M: Plants in Schedules 1 and 2 of the TSCA

Schedule 1 Endangered species, populations and ecological communities

Part 1 Endangered species – plants

Part 2 Endangered populations – plants

Part 3 Endangered ecological communities

Part 4 Species presumed extinct – plants

Schedule 2 Vulnerable species and ecological communities

Part 1 Vulnerable species – plants

The Schedules of the TSCA can be found at on the NSW Government's legislation website.[15]

For further information please contact OEH on 133 555 or at info@environment.nsw.gov.au.

[15] www.legislation.nsw.gov.au/viewtop/inforce/act+101+1995+FIRST+0+N

Appendix N: Licence fees

Licence fees vary depending on the costs incurred by OEH associated with inspecting and monitoring sites. The standard application fees outlined here are current at the time of publication of this management plan and are subject to change without notice.[16] The licence application fee is to be paid on lodgement of the application and is not refundable if the application is refused or withdrawn.

Picker licences: Some licences authorise picking from multiple sites and licence fees vary accordingly. The annual fees for picker licences are:

- for 1 to 2 sites – $75 per site
- for 3 to 5 sites – $200
- for 6 to 10 sites – $500
- for 11 or more sites – $1000.

Wild harvest licences: For those harvesting from naturally occurring plants growing on property which they own, annual licence fees are:

- for initial applications – $75
- for subsequent applications that require a site inspection – $50.

Grower licences: Grower licences will apply to the harvest of cut flowers, foliage or other parts of cultivated plants. The fees for grower licences are:

- for 1 year – $30
- for 3 years – $75
- for 5 years – $100.

If both a wild harvest and grower licence is required, the application fee for the grower licence will be waived.

Varying a licence

A fee of $30 will apply for a request by the licensee for variation to a picker licence, excluding changes to the quantities of material to be harvested. Additional NPWS tags must be purchased if required.

A period of time will be permitted after granting of the licence for the licensee to nominate employees, particularly as many are itinerant, and this will not be considered a variation.

[16] www.environment.nsw.gov.au/wildlifelicences/PlantLicenceDetails.htm

Appendix O: Species commonly used in the cut-flower industry

The native plants listed below are known to be regularly commercially harvested or grown, and have been assessed to be of low conservation concern. They were previously listed in Part 1 Group 1 of Schedule 13. These species are not subject to licensing or tagging requirements.

Scientific name	Common name
Acacia baileyana	Cootamundra wattle
Acacia binervia	Coast myall
Acacia covenyi	Blue bush
Acacia cultriformis	Knife-leaved wattle
Acacia decora	Western silver wattle
Acacia podalyriifolia	Mount Morgan wattle, Queensland silver wattle
Acacia pravissima	Wedge-leaved wattle, Ovens wattle
Alloxylon pinnatum	Dorrigo waratah, tree waratah
Angophora hispida	Dwarf apple
Banksia ericifolia	Heath banksia
Banksia marginata	Silver banksia
Banksia oblongifolia	Fern-leaf banksia
Banksia robur	Swamp banksia
Bracteantha bracteata	Golden everlasting daisy
Calochlaena dubia	Soft bracken, rainbow fern
Callistemon spp., native to NSW (unless listed under the TSCA)	Bottlebrush
Ceratopetalum gummiferum	Christmas bush
Cordyline spp., native to NSW	Palm lilies
Correa alba	White correa
Corymbia gummifera	Red bloodwood
Cryptandra scortechnii	Cotton bush
Dianella spp., native to NSW	Flax lily
Eucalyptus spp., native to NSW (unless listed under the TSCA)	Eucalyptus
Gleichenia dicarpa	Pouched coral fern
Grevillea spp., native to NSW (unless listed under the TSCA)	Spider flowers
Hakea dactyloides	Finger hakea
Melaleuca ericifolia	Swamp paperbark
Micromyrtus ciliata	Fringed heath myrtle
Ozothamnus diosmifolius	White dogwood, rice flower
Pteridium esculentum	Bracken fern, common bracken fern
Rhodanthe floribunda	White everlasting daisy