# Bringing back the bush: Regeneration of critically - endangered remnant forest

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**Remnant critically-endangered Sydney Turpentine Ironbark Forest has been conserved, improved and expanded in an ecological management and restoration program spanning 20 years. The program includes primary, secondary and maintenance weeding, assisted and natural regeneration, and the introduction of controlled burning. Vegetation condition is assessed through five-yearly systemic floristic survey, as well as two-yearly condition assessment. These assessments have shown an increase in species diversity and condition over time, with corresponding increase in resilience. The forest now supports over 210 flora species, and 19 of 20 hectares is classified as being in good condition, with the remainder continuing to undergo rehabilitation. Collection of local provenance seed has enabled extension of forest species and their genetics across the Park.**

## Introduction

Sydney Turpentine Ironbark Forest (STIF) is listed as a 'critically endangered' ecological community under both the *NSW Biodiversity Conservation Act 2016* and the federal *Environment Protection and Biodiversity Conservation Act 1999*. Less than 10% or 2,940 hectares of the original pre-European extent of STIF remains intact. Of this, only 280 hectares is protected in conservation reserves, including 13 hectares located within Newington Nature Reserve at Sydney Olympic Park. A further seven hectares of the community is situated immediately adjacent to the Reserve on lands within Sydney Olympic Park.

Sydney Olympic Park Authority manages STIF across the two land tenures as one 20-hectare land management unit, working in close collaboration with the NSW National Parks and Wildlife Service and in accordance with the adopted Plan of Management for Newington Nature Reserve (SOPA & NPWS 2003).

This remnant forest is considered to be a good representative of the community, however it is highly isolated. Wallumatta Nature Reserve at Ryde, approximately 10 kilometres away and north of Parramatta River, contains the closest neighbouring remnant in good condition.

The forest is located within a highly urbanised part of Sydney, and the surrounding landscape to the east and south has been significantly remediated, remodelled and replanted over the past 25 years. This manufactured landscape is planted with native vegetation and provides ecological connection and buffering to the forest.

To the north, the forest forms part of an estuarine zonal succession – as the ground level drops towards the Parramatta River, STIF progressively gives way to Swamp Oak Floodplain Forest, saltmarshes, then mangrove wetlands. This zonal succession is contained within the 47-hectare Newington Nature Reserve.

The forest has been subject to a range of disturbances in the past. It was used for timber-cutting and grazing in colonial times, then throughout the 20th century the forest was part of the Royal Australian Navy Armament Depot, Newington, which was managed by the Commonwealth Department of Defence.

The Department of Defence constructed a series of explosives storehouses within and around the forest in the 1930s, and the forest understorey was mown until the 1980s to protect stored armaments from the risk of accidental wildfire. This lack of fire history makes the forest different to most other remnant woody vegetation in the Sydney region.

The forest has no water courses running through it. Past and present land tenures have excluded public access to the forest core for well over a hundred years.

Air photos indicate the forest extent has remained constant since 1932 (Clarke & Benson 1988). Most of the existing forest canopy is secondary or later regrowth and the multi-layered sub-canopy of small trees and shrubs is likely to be the result of these past management practices (Urban Bushland Management Consultants, 1997). The forest supports many mature endemic trees with hollows and spouts, stags, dense middle and lower storey vegetation, dense litter cover, good burrowing soils and a relatively undisturbed environment (Mt. King Ecological Surveys 2001). It is the only area of mature woodland vegetation with large numbers of hollows in the Homebush Bay region, providing an ecologically-important roost and nest site for microbats and birds.

## Vegetation Management

A program of works to restore and enhance the ecological values of the forest began in 1997 and has been mostly continuous since that time.

In 1997, the forest exhibited widespread symptoms of degradation including weed invasion and inappropriate fire regimes. The understorey had begun to regrow after being suppressed for over 90 years to control the threat of fire but the forest extent was reduced to just 13 hectares, creating substantial edge impacts. A small area of the forest that was formerly used by Department of Defence as a burning pit was remediated in 1997 and replanted with local species, and an initial primary weeding program was conducted to address widespread weed invasion.

A regular weed management program was commenced in 2001, and soon after, a regeneration plan was developed with the objective of expanding the total area of the forest community. Seven hectares of land outside the gazetted boundary of the Reserve was identified for restoration. The regeneration area was mapped according to the type of treatment to be applied – natural regeneration, assisted regeneration, or total re-creation (Figure 1). Cultural heritage values of the wider area were also considered – view corridors free of tall shrubs and trees needed to be maintained across part of the restoration area, and former explosives storehouses still needed to be protected from damage due to wildfire. The wider precinct is now listed on the NSW State Heritage Register due to its natural and cultural heritage significance (listed as Newington Armament Depot and Nature Reserve) and the majority of the forest is now classified as being in 'good" condition (Figure 2).

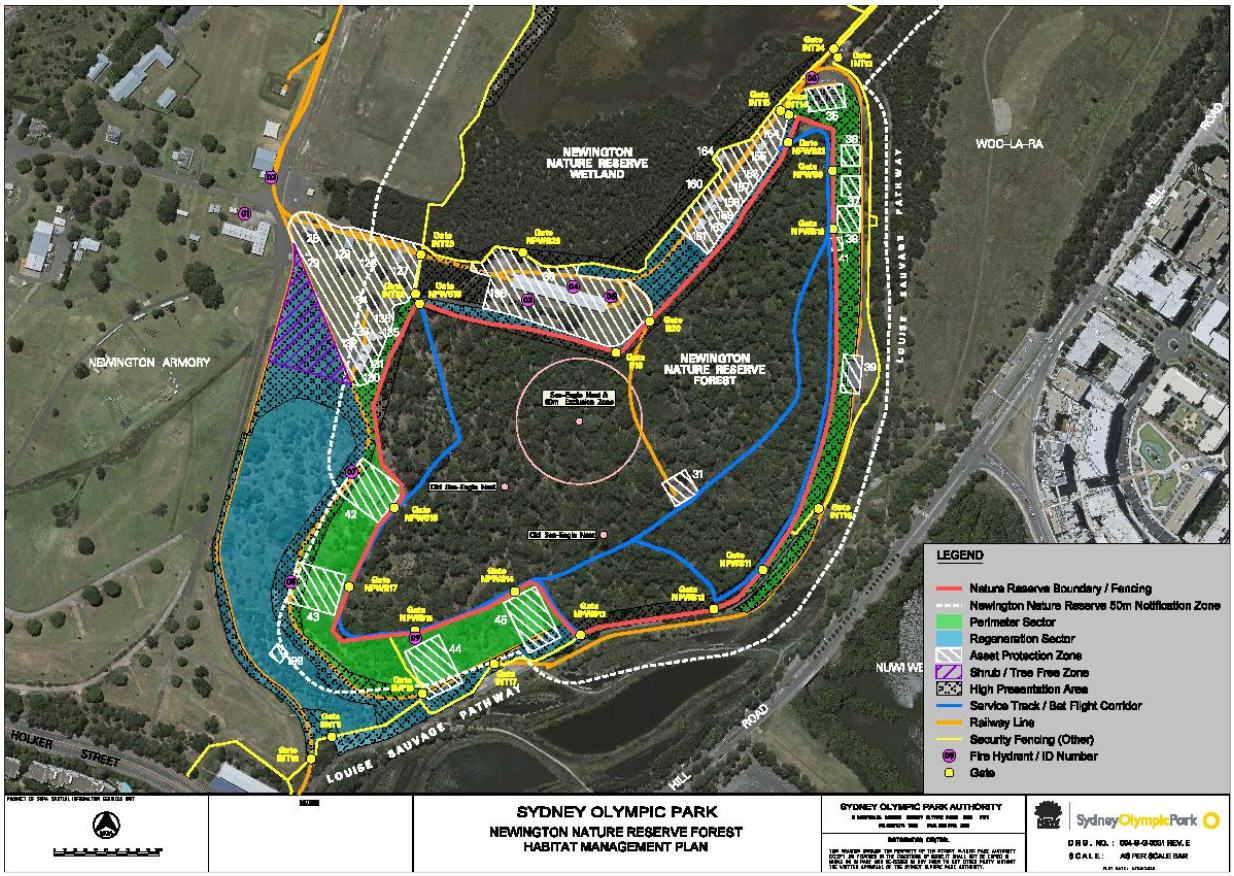
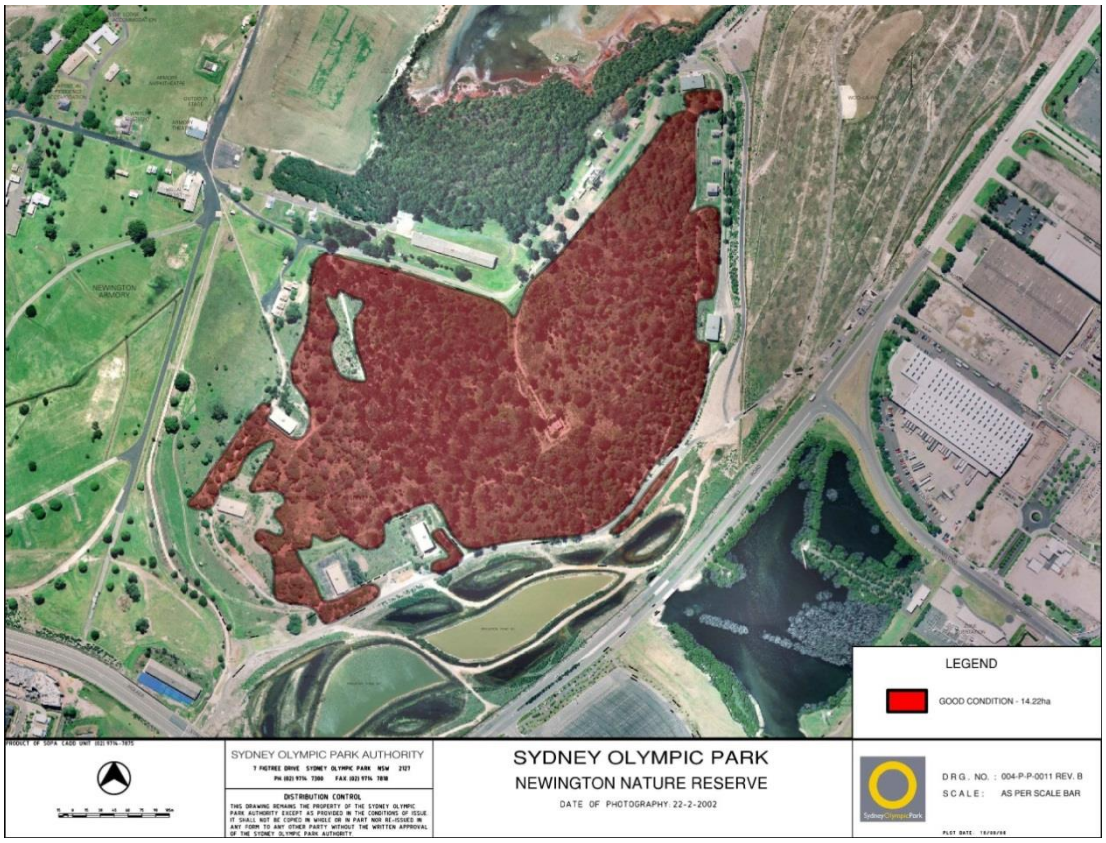



**Figure 1:** Sydney Turpentine Ironbark Forest management zones



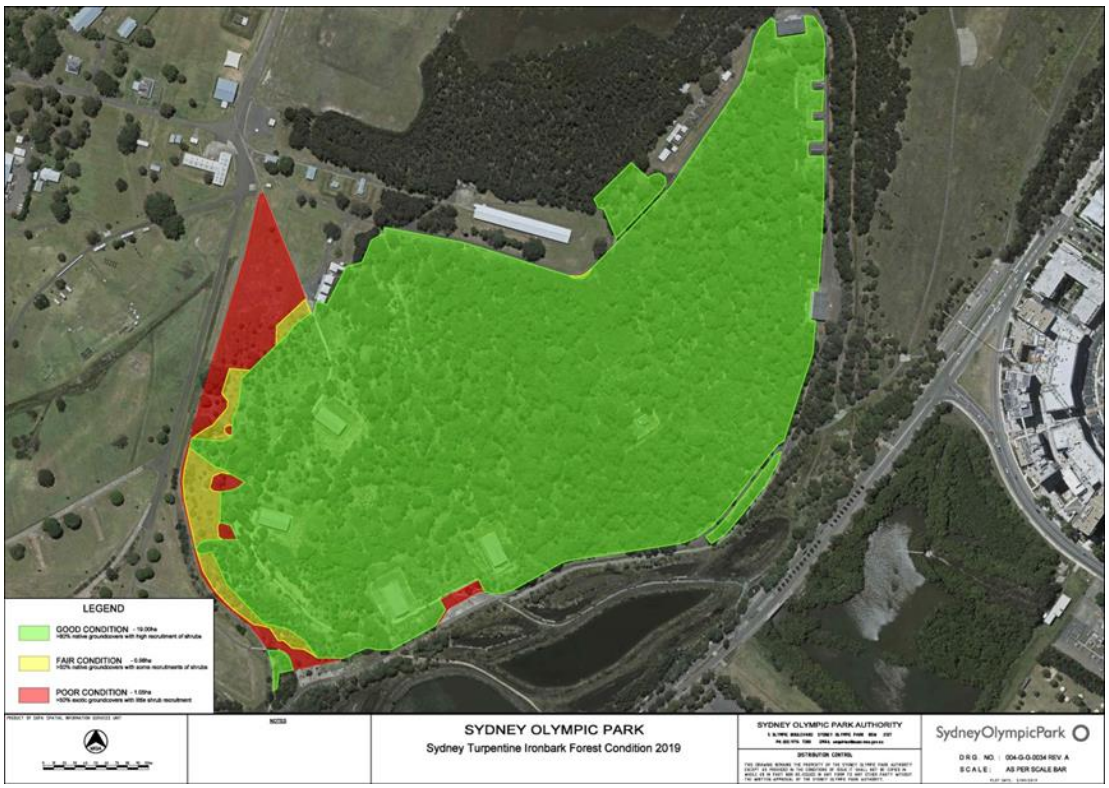




**Figure 2: Change in forest condition over time**

Top: area classified as 'good' condition in 2002 (red)

Bottom: area classified as 'good' condition in 2019 (green); 'fair' condition (yellow) and 'poor' condition (red)

## Weed Control

The annual weed control program commenced in 2001 has been ongoing with the exception of the 2004-05 period. Qualified bush regenerators conduct regular weed sweeps across the forest to remove target weeds.

Initial works concentrated on the primary and secondary treatment of woody weeds, vines and scramblers. Dominant weeds were predominantly species spread by birds and included Boneseed (*Chrysanthemoides monilifera* ssp. *monilifera*), Lantana (*Lantana camara*), African Olive (*Olea europaea* ssp. *africana*), Ochna (*Ochna serrulata*), Camphor Laurel (*Cinnamomum camphora*), Asparagus Fern (*Asparagus aethiopicus*), Blackberry (*Rubus fruticosus* species aggregate) and Moth Vine (*Araujia sericifera*). More than 1,400 labour hours were spent targeting woody weeds, vines and scramblers during 2001-02 across the nature reserve and perimeter and regeneration sectors. This amount reduced to approximately 700 labour hours during 2002-3 and 600 labour hours in 2003-04, as management moved into a maintenance phase.

Significant resources have also targeted exotic grasses including Kikuyu (*Cenchrus clandestinus* syn. *Pennisetum clandestinum*), African Lovegrass (*Eragrostis curvula*), Paspalum (*Paspalum dilatatum and P. urvillei*), Whisky Grass (*Andropogon virginicus*), Briza (*Briza subaristata*) and Carpet Grass (*Axonopus fissifolius*), among other species. More than 600 labour hours were spent targeting exotic grasses in 2001-02, with similar resourcing (between 400-600 labour hours) being required per year since.

Two new invasive species have been introduced to the forest during the last 20 years, requiring substantial resourcing to control. Both are introduced and spread by birds. They are the exotic vine species Corky Passionfruit (*Passiflora suberosa*) and the native tree species Tuckeroo (*Cupaniopsis anacardioides*). The Tuckeroo is a favoured plant species in landscape design and has been planted in landscape areas within Sydney Olympic Park and adjoining suburbs such as Newington. This species is not a component of the STIF plant community, and so is considered to be a local weed species. Since the elimination of legacy stands of Boneseed and Lantana from the forest, Tuckeroo has become one of the most abundant woody weed species in the forest and is routinely targeted during maintenance sweeps.

Bush regenerators primarily use hand weeding methods to control weeds. Herbicide use is limited to cut and paint or scrape and paint methods. Spray application of herbicide has not been used within the nature reserve since around 2003 (other than on hardstand areas around built structures). Outside the nature reserve, spraying is restricted to one-off primary treatments of established stands of Kikuyu in the perimeter and regeneration sectors.

## Revegetation and restoration treatments

While much of the regeneration area outside the nature reserve has regenerated naturally with time and effective weed management, some areas were so badly degraded that more intensive regeneration approaches were required.

**Assisted regeneration** was applied to the west of the nature reserve. Local provenance plantings of shrub clusters and scattered canopy trees were established in 2004 (southern section – ~ 1,000 plants) and 2008 (northern section ~ 1,116 plants). These plantings provided a direct seed source and 'roosting nodes'

**Figure 3 – Vegetation change 2001 – 2019**

A combination of natural and strategic planting regeneration techniques was applied in the 'regeneration sector', west of the nature reserve

**Figure 4** – Vegetation change 2004 to 2019

The restoration zone was deep-ripped, mulched and planted with local provenance seedlings to create a vegetative link between the STIF community and the SOFF community

to encourage seed spread by bird species. Some subsequent planting has taken place after 2008 (Table 1). The results of this program can be seen in changes to vegetation structure and are evident in comparison of aerial photography between 2001 and 2019 (Figure 3). Natural recruitment in both areas continues to improve structure and diversity.

**Total restoration** was conducted to the north of the forest. A vegetative link was established across a barren service corridor that separated STIF from Swamp Oak Floodplain Forest (SOFF). Highly compacted mown turf was deep-ripped and mulched, then planted with local provenance seedlings (Figure 4).

**Table 1: Local Provenance Planting – Regeneration Sector west of Nature Reserve**

| Species | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | Total |
|---|---|---|---|---|---|---|---|
| Trees | | | | | | | |
| *Eucalyptus fibrosa* | 20 | | | | | | 20 |
| *Eucalyptus globoidea* | 20 | | | | | | 20 |
| *Eucalyptus racemosa* | 40 | | | | | | 40 |
| *Eucalyptus longifolia* | 20 | | | | | | 20 |
| *Eucalyptus paniculata* | 20 | | | | | | 20 |
| *Eucalyptus punctata* | 20 | | | | | | 20 |
| *Syncarpia glomulifera* | 20 | | | | | | 20 |
| Total | 160 | 0 | 0 | 0 | 0 | 0 | 160 |
| Shrubs | | | | | | | |
| *Acacia longifolia* | 122 | | | | | | 122 |
| *Acacia myrtifolia* | 20 | | | | 24 | | 44 |
| *Acacia paradoxa* | | | | | 13 | 7 | 20 |
| *Allocasuarina littoralis* | 105 | | | | | | 105 |
| *Daviesia ulicifolia* | 120 | | | | | | 120 |
| *Dodonaea triquetra* | 509 | | | | | | 509 |
| *Hakea propinqua* | | | | 6 | | | 6 |
| *Hakea sericea* | 11 | | | | | | 11 |
| *Hovea longifolia* | 34 | | | | | | 34 |
| *Kunzea ambigua* | | | | | 75 | | 75 |
| *Melaleuca nodosa* | | | | | 240 | | 240 |
| *Podolobium ilicifolium* | 15 | 20 | | | | | 35 |
| *Pomaderris discolor* | | 80 | | | | | 80 |
| *Pomaderris lanigera* | | 40 | | | | | 40 |
| *Pultenaea villosa* | 20 | | | | | | 20 |
| Total | 956 | 140 | 0 | 6 | 352 | 7 | 1461 |
| | | | | | | | |
| Total | 1116 | 140 | 0 | 6 | 352 | 7 | 1621 |

## Reintroduction of fire

STIF is a fire-dependent ecological community. Best practice guidelines for managing STIF state that the minimum recommended fire frequency is seven years and the maximum recommended fire frequency is 30 years, with only a small area of a remnant to be burnt at any one time. Ideally, prescribed burns should be conducted between 15 and 30 years apart (DECC 2008).

Fire was re-introduced to part of the STIF community in April 2018 (Figure 5) after not being present since at least the 1940s, due to historical management drivers. This fire-free interval is substantially longer than the natural fire regimes to which the plant community is adapted, leaving the community vulnerable to the loss of fire-dependent species and the gradual increase in mesic species.

The controlled burn was conducted as a joint venture between NSW National Parks & Wildlife Service and NSW Fire & Rescue as the fire footprint crossed over two land management jurisdictions - NPWS (Newington Nature Reserve) and SOPA (Newington Armory). The initial proposed burn dates during 2017 were postponed due to conditions being unfavourable during scheduled burn windows. Windows were restricted by the location of the site, being next to residential areas and a major events precinct (events such as Royal Easter Show need to be taken into consideration), and the nesting time of the resident pair of White-bellied Sea-Eagles that nest within the forest each winter/spring.

Approximately seven hectares was burnt in a low-intensity burn in April 2018, following careful preparation to protect hollow-bearing trees, cultural heritage items and Park infrastructure.

Vegetation recovery was initially slow due to low rainfall following the burn, however two years after the burn there has been abundant regrowth and recruitment of shrubs, vines and groundcovers (Figure 6), enhancing vegetation structure and increasing the distribution of certain species (eg. *Gompholobium minus and other pea species, Stackhousia viminea).*

The Regeneration Sector to the west of the nature reserve has generally responded very well to the fire, with recruitment of species not present before the burn. This area was a mix of exotic and native grasses in 2001, and there appears to be a degree of resilience in the soil seedbank despite fire being absent from the area for at least 70 years and the area being managed as a grassland until recently (Figure 7).

The remainder of the nature reserve, perimeter and regeneration sectors are proposed to be burned over the next five to six years in a minimum of two stages.

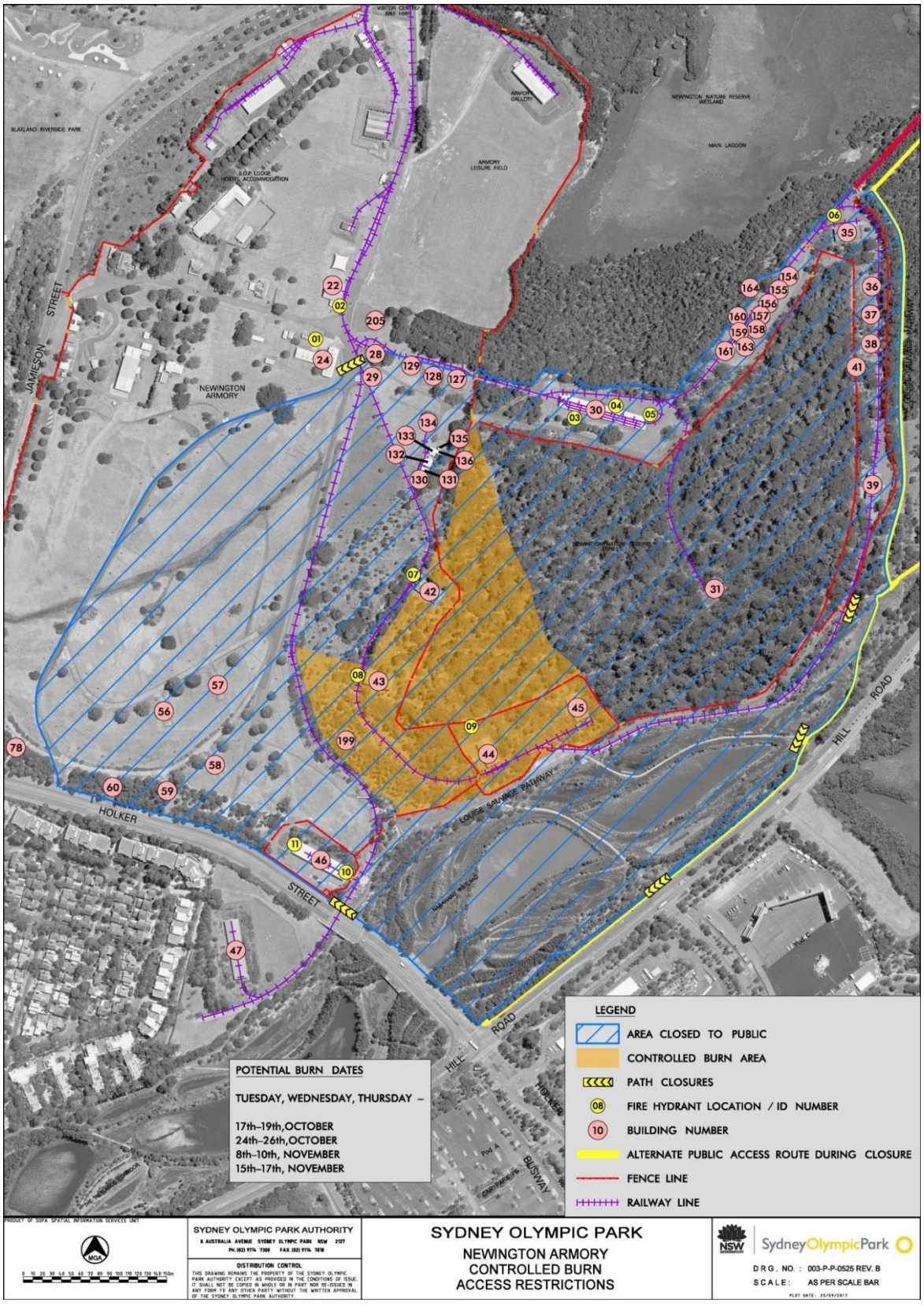



**Figure 5** – 2018 controlled burn area

**Figure 6** – Regeneration of the April 2018 burn area two years on

Nature Reserve (top); Perimeter sector (centre, bottom). Photography date April 2020

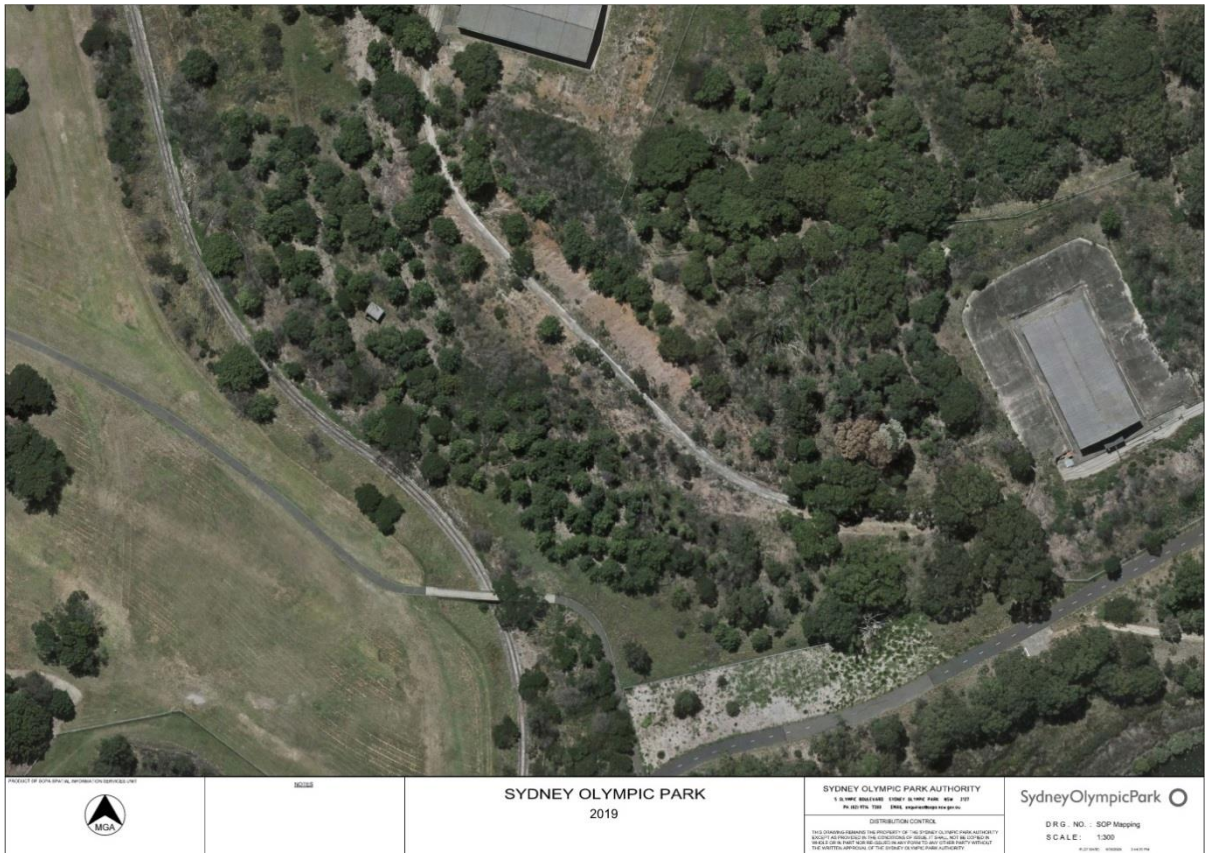




**Figure 7** – Vegetation change south-west corner of the forest 1943 - 2019

## Local provenance planting

Seed collected from the forest was used in some pre-Olympic revegetation programs within Sydney Olympic Park. Since 2006, regular collection has been undertaken to create a source of local provenance seedlings for replanting programs. These programs have aimed to:

- increase the area of the STIF remnant and the vegetative buffer around it
- increase the distribution of STIF species and local genetics across Sydney Olympic Park
- link areas of high biodiversity within and outside the Park.

A specialist seed collector and nursery is contracted to collect seed on three to four occasions per year, between spring and autumn, and to grow seedlings to hiko cell/50 mm tube size. Authority staff also opportunistically collect seeds from remnant vegetation within Newington Armory for direct broadcast.

Initial plantings of local provenance seedlings were concentrated within the regeneration sector (Figure 1) and terrestrial areas adjacent to the nature reserve estuarine habitats, in accordance with SOPA's regulatory licence requirements which restrict use of first generation plant material to within a 300 metre radius of the reserve. Once these plantings matured, second generation seeds were available for planting of locally provenance plants across other parts of Sydney Olympic Park. This has allowed more structurally complex habitats to be created for native fauna, particularly woodland birds, and to achieve aesthetically pleasing habitats containing self-recruiting local STIF species.

The STIF restoration program has been successful in assisting in the extension of the STIF community and increasing the genetic and disturbance buffer to Newington Nature Reserve. The program has successfully established and enhanced secondary source of local seed for planting programs in areas away from the reserve.

In total, over 127,000 local provenance plants have been propagated from primary and secondary seed sources since the program commenced in 2006 (Appendix 1).

## Monitoring

Detailed floristic survey of 15 permanent monitoring quadrats (Figure 8) is conducted on a nominal five-yearly cycle (to date in 2003, 2007, 2012 and 2018). Random meander surveys supplement this data, and an expert ecologist conducts a qualitative assessment of forest condition every two years. This program allows updating of floristic information, assessment of change over time and in response to management actions, and provides guidance for the ongoing management of the community.

The surveys have shown that species richness in the STIF community has increased from 106 species in 2002 to over 210 species during the 2018 survey. A total of 227 native species have been identified in the STIF since 2001 (Appendix 2).

The controlled burn which took place in April 2018 burned 4 of the 15 quadrats used in the periodic floristic surveys (Quadrat 1, 3, 4 & 14 – Figure 8). The burn was followed by an extended dry period where little germination occurred and it was not until after the rains in late spring 2018 (Table 2) that there was a flush of seed germination. The floristic survey conducted in December 2018 recorded a high abundance and diversity of seedlings and juvenile plants within these quadrats, indicating an increase in diversity as a result of the fire (Table 3).

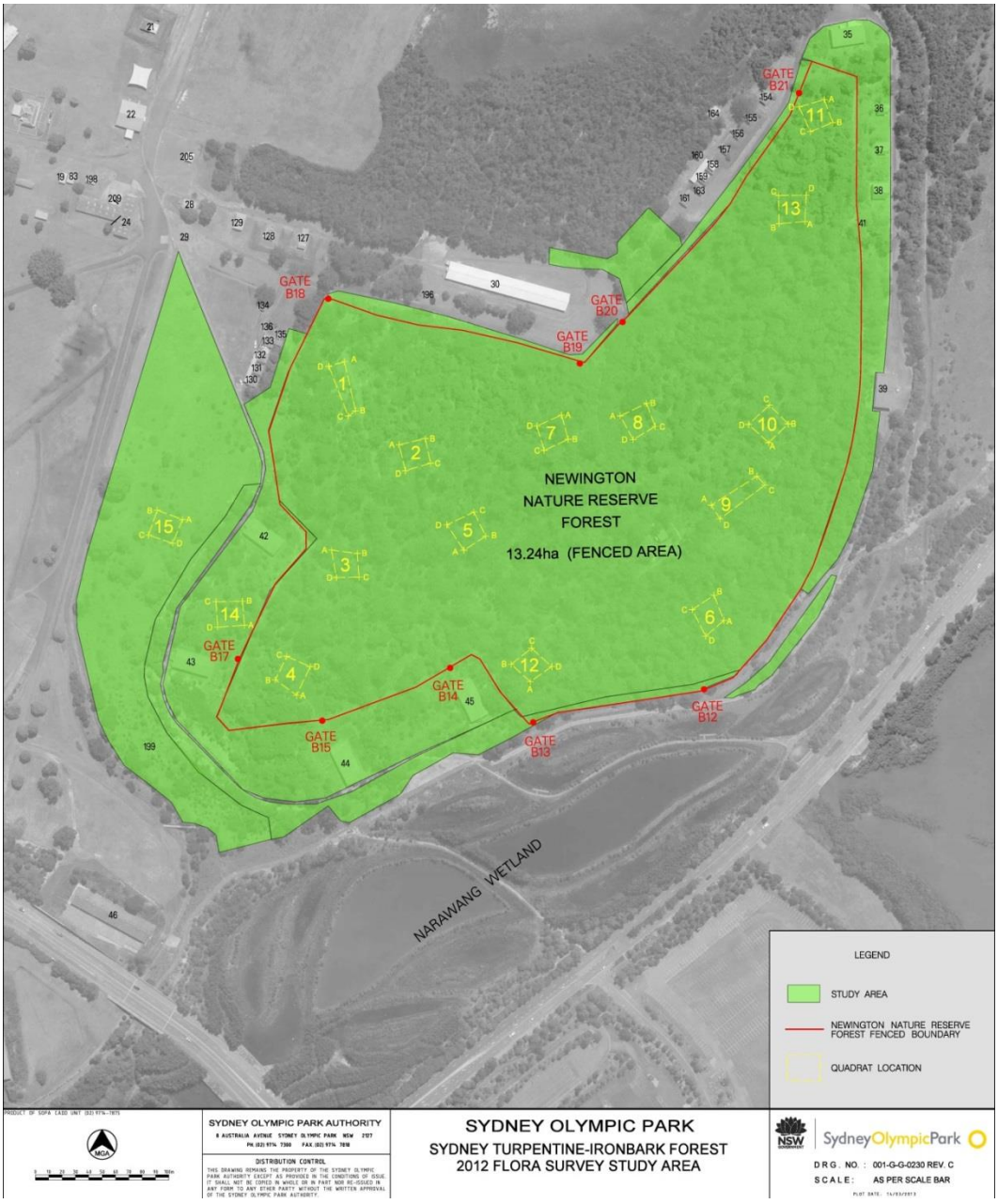



**Figure 8** – Floristic survey monitoring quadrat locations

**Table 2: Rainfall at Sydney Olympic Park Apr-Dec 2018**

| Month | Apr 18 | May 18 | Jun 18 | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 |
|---|---|---|---|---|---|---|---|---|---|
| Rainfall (mm) | 15.2 | 11.8 | 103.6 | 3.6 | 8.0 | 40.4 | 222.8 | 128.8 | 66.0 |

**Table 3: Number of species (native) recorded in quadrats which were burnt in April 2018**

| Quadrat | 2002 | 2007 | 2012 | 2018 |
|---|---|---|---|---|
| 1 | 17 (9) | 36 (21) | 40 (22) | 64 (45) |
| 3 | 28 (27) | 45 (44) | 48 (44) | 57 (46) |
| 4 | 23 (17) | 34 (28) | 40 (29) | 65 (47) |
| 14 | 30 (22) | 43 (29) | 51 (39) | 52 (44) |

## Concluding remarks

The condition, extent and floristic diversity of the Sydney Turpentine Ironbark Forest community at Sydney Olympic Park has greatly improved over the course of this long-term project.

The extent of STIF considered to be in good condition has expanded from 14.22 hectares in 2002 to 19.00 hectares in 2019 (Figure 2), and the majority of the forest now has low levels of weed infestation. Works to improve the remainder are continuing.

There has been a significant reduction in the number of labour hours required for weed treatment within the boundaries of the nature reserve, dropping from over 1,300 hours in 2001-02 to around 300 hours in 2018-19. As a consequence, works have shifted from being predominantly within the nature reserve boundary to now being largely in the perimeter and regeneration sectors of the forest, adjoining the reserve. This shift in management focus is an indication of the improved condition and resilience of the forest within the nature reserve due to having a regular maintenance program in place.

While public access to the nature reserve continues to be highly restricted to ensure its ongoing conservation, expansion of the forest to adjoining lands within Sydney Olympic Park has created opportunities for people to more closely connect with this critically endangered community through guided tours, botanical trails, and casual walking and cycling.

## Acknowledgements

With thanks to the many contractors, staff and advisors who have contributed to the regeneration of the forest.

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## Appendix 1: Local Provenance Seed Collection and Propagation

**Seed Collected and Propagated from STIF Nature Reserve + Perimeter Areas**

C=Collected; P=Propagated

| Species | 2005/06 | | 2006/07 | | 2007/08 | | 2008/09 | | 2009/10 | | 2010/11 | | 2011/12 | | 2012/13 | | 2013/14 | | 2014/15 | | 2015/16 | | 2016/17 | | 2017/18 | | 2018/19 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Canopy species** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** | **C** | **P** |
| *Eucalyptus fibrosa* | X | | X | | | 73 | | | | | | | | | | | | | | | | | | | | | | |
| *Eucalyptus eugenoides* | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| *Eucalyptus globoidea* | | | X | | | 129 | | | | | | | X | | | 161 | | | | | | | | | | | | |
| *Eucalyptus haemastoma* | X | | X | | | 63 | | | | | | | | | | | | | | | | | | | | | | |
| *Eucalyptus haemastoma x racemosa* | | | X | | | 102 | | | | | | | | | | | | | | | | | | | | | | |
| *Eucalyptus longifolia* | X | | | | | 95 | | | | | | | X | | | | | | | | | | | | | | | |
| *Eucalyptus paniculata* | X | | X | | | 128 | | | | | | | | | | 44 | | | | | | | | | | | | |
| *Euclayptus punctata* | X | | X | | | 113 | | | | | | | | | | | | | | | | | | | | | | |
| *Syncarpia glomulifera* | X | | | | | 90 | | | X | | | | X | | | 175 | | | | 2 | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Shrub species** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Acacia falcata* | X | | X | | X | 189 | | 70 | X | 137 | X | 10 | | 1425 | X | 770 | X | 165 | X | 842 | X | 906 | X | 1131 | | 935 | X | 30 |
| *Acacia fimbriata* | | | | | | | | | X | 29 | X | 17 | | 18 | | 8 | | | | | | | | | | | | |
| *Acacia longifolia* | X | | X | | X | 232 | | | X | 44 | X | 30 | | 133 | X | | X | | X | 295 | X | 170 | | 245 | | 15 | | 27 |
| *Acacia myrtifolia* | | | X | | X | 61 | X | 90 | X | 239 | X | 93 | | 14 | X | 24 | | 235 | | 10 | | | X | | | 305 | | 6 |
| *Acacia paradoxa* | | | | | | | | | | | | | X | | | 13 | | 8 | | | | | | | | | | |
| *Acacia parramattensis* | | | | | | | | | | | | | | | | | | | | | | | X | | | 88 | | |
| *Acacia stricta* | X | | | | | 66 | | | | | X | | | 382 | X | 82 | X | 196 | X | 607 | X | 854 | X | 520 | | 240 | | 9 |
| *Acacia ulicifolia* | | | | | X | | X | 440 | X | 301 | X | 14 | | 6 | | | | | X | | X | 117 | | 25 | | | | |
| *Allocasuarina litoralis* | X | | | | | 200 | X | 100 | | 52 | | | X | | | 238 | | 537 | | 1 | | | | | | | | |
| *Bossiaea prostrata* | | | | | | | | | | | X | | | 26 | | | | | | | | | | | | | | |
| *Breynia oblongifolia* | | | | | | | | | X | | | 28 | | | | | | | | | | | | | | | | |
| *Bursaria spinosa* | | | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| *Clerodendrum tomentosum* | | | | | | | | | X | | X | | X | | | | | | | | | | | | | | | |
| *Daviesia ulicifolia* | X | | X | | X | 200 | X | | X | 235 | X | 97 | | 586 | X | 705 | X | 412 | X | 263 | | 1281 | | 695 | | | | |
| *Dillwynia sieberi* | | | | | | | | | X | | X | 25 | | 200 | | 15 | | 4 | X | | | 1074 | | 390 | | 50 | | 455 |
| *Dodonaea triquetra* | X | | X | | X | 809 | X | 1000 | X | 330 | X | 2 | | 1886 | X | | | 534 | X | 109 | X | 1150 | X | 685 | | 95 | X | 1056 |
| *Gonocarpus tetragynus* | | | | | | | X | | | 19 | | | | | | | | | | | | | | | | | | |
| *Hakea* aff. *propinqua* | | | | | | | | | | | X | | | 16 | | | X | | | | | | | | | | | |
| *Hakea sericea* | | | | | | | X | 38 | X | 221 | | 2 | | | X | | X | 490 | X | 51 | X | 544 | X | 254 | X | 360 | | 214 |
| *Hovea linearis* | | | | | | | | | | | | | | | | | | | X | | | | | 292 | | | | |
| *Hovea longifolia* | | | X | | X | 46 | | 74 | | 54 | | | | | | | | | | | X | 323 | X | | | 74 | | 136 |
| *Kunzea ambigua* | | | | | | | | | | | X | | X | | | 3000 | X | 180 | X | 1543 | | 1569 | X | 677 | | 510 | X | 512 |
| *Lasiopetalum ferrugineum* | | | X | | | | X | | | | | | | | X | | | 18 | | | X | | X | | | | | |
| *Logania albiflora* | | | | | | | X | | | 48 | X | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Melaleuca decora* | | | | | | | | | | | | | | | | | | | X | | | | X | 782 | | 40 | | 429 |
| *Melaleuca nodosa* | | | | | | | | | | | | | X | | X | 760 | | 480 | X | 246 | X | | | 520 | | | | 504 |
| *Myoporum boninense* | | | | | | | | | | | | | | | X | | | | | | | | | | | | | |
| *Notelaea longifolia* | X | | | | | | X | | | | | | X | | X | | X | | X | | X | | | | | | | |
| *Ozothamnus diosmifolium* | X | | X | | | 180 | X | | X | 489 | X | 2035 | | 1 | | 59 | X | 240 | X | 57 | | | | | | | X | |
| *Pittosporum revolutum* | | | | | | | | | X | | | 174 | | 108 | X | | X | 68 | X | 4 | X | 20 | X | 80 | | 506 | | 70 |
| *Platylobium formosum* | | | X | | X | 80 | X | | | 59 | X | | | 13 | | | | | | | | | | | | | | |
| *Podolobium ilicifolium* | | | X | | X | 95 | X | 115 | X | 84 | | | | | | | | | | | X | | | 17 | | | | |
| *Polyscias sambucifolia* | | | | | | | | | | | X | | X | | | | X | | X | | | | X | | | | | |
| *Pomaderris discolor* | X | | | | X | | X | 15 | | 331 | X | | | | | 195 | | 55 | | 17 | X | | | 809 | | | | |
| *Pomaderris ferruginea* | | | | | | | X | | | 15 | | | | | | | X | 183 | | | X | | | 265 | | | | |
| *Pomaderris lanigera* | | | | | | | X | | | 198 | X | | | 699 | X | 253 | | 2 | | 5 | | 26 | X | | | 360 | | |
| *Pultenea villosa* | | | X | | X | 120 | | 350 | X | 161 | X | 27 | | 200 | X | | X | 108 | X | 12 | X | 48 | | 95 | | | | |
| *Zieria smithii* | | | | | | | | | X | | X | | | 201 | X | 17 | X | 7 | X | | | 212 | X | | | | X | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Groundcover species** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Aristida ramosa* | | | | | | | | | X | 520 | X | 9 | X | 256 | X | 186 | | 174 | X | | X | 148 | | 80 | | | | |
| *Aristida vagans* | X | | | | | | | | X | 300 | X | 532 | X | 280 | X | | X | 111 | X | | X | 178 | | 68 | | | X | 32 |
| *Aristida warburgii* | X | | | | | | | | | | | | | | | | | | X | | X | 96 | | 356 | | | | |
| *Austrodanthonia bipartita* | X | | | | | 61 | | | | | | | | | | | | | | | | | | | | | | |
| *Austrodanthonia sp.* | | | | | | | X | 280 | | 740 | | 35 | | | X | | | | | | X | | X | 2320 | | 760 | | 6 |
| *Austrodanthonia tenuior* | X | | X | | X | 146 | | | X | | X | 760 | | 636 | | | | | | | | | X | | | 1400 | | |
| *Austrostipa pubescens* | | | | | | | X | | X | | | 192 | | | | | | | | | | | | | | | | |
| *Austrostipa ramosissima* | | | X | | | 240 | | | X | 132 | X | | X | 856 | X | 666 | | 229 | X | | X | 600 | X | 815 | X | 1255 | | 1385 |
| *Bothriochloa macra* | | | | | | | | | X | | X | 288 | | 160 | X | | X | 240 | X | | X | 332 | X | 320 | X | 547 | X | 350 |
| *Calotis cuneifolia* | | | | | X | | | 140 | X | 184 | X | 526 | | 850 | X | | X | | | | | | X | | | 198 | | |
| *Calotis lappulacea* | | | | | | | | | | | X | | | 154 | X | | | | | | | | | | | | | |
| *Cymbopogon refractus* | X | | | | | | | | X | 248 | X | 2600 | X | 542 | X | 971 | X | 1949 | X | 64 | X | 1051 | X | 810 | X | 265 | X | 840 |
| *Dianella caerulea* | | | | | | | X | | | 414 | | 3 | | | | | | | X | | x | 61 | X | 62 | | 156 | | |
| *Dianella longifolia* | | | | | | | | | | | | | | | | | | | X | | | 29 | | | | | | |
| *Dianella revoluta* | | | | | | | | | X | | | 10 | | | | | | | X | | | 13 | | | | | | |
| *Dichelachne micrantha* | X | | X | | X | 918 | X | 1000 | X | 1117 | X | 35 | X | 492 | X | 480 | X | 1041 | | 9 | | | X | | | 798 | X | 575 |
| *Digitaria ramularis* | | | | | | | | | X | | | 240 | | | | | | | | | | | | | | | | |
| *Echinopogon caespitosus* | | | | | | | X | 160 | X | 358 | X | 448 | X | 1420 | X | 304 | X | 458 | X | 4 | | | | | | | X | |
| *Entolasia marginata* | | | | | | | | | | | | | X | | X | 56 | | 143 | | 8 | | | | | | | | |
| *Entolasia stricta* | | | | | | | | | | | | | | | | | X | | | | X | 54 | | 37 | | | | |
| *Eragrostis brownii* | X | | | | | 240 | | | X | | X | 798 | | 507 | X | 440 | | 1280 | | 6 | X | | | 1353 | | 408 | | 200 |
| *Eragrostis elongata** | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1517 |
| *Eragrostis leptostochya* | | | | | | | | | X | 343 | | | | | | | | | | | | | | | | | | |
| *Lepidosperma laterale* | X | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| *Linum marginale* | | | | | | | | | | | X | | | 300 | | | | | | | | | | | | | | |
| *Lomandra longifolia* | | | X | | | | | | X | | | 1580 | | 33 | X | | X | 26 | X | | | 101 | | | | | X | |
| *Lomandra multiflora* | | | | | | | | | | | X | | | 21 | | | | | X | | | | | | | | | |
| *Microlaena stipoides* | | | | | | | | | X | | | 5328 | X | | X | 1439 | X | 2101 | X | 896 | X | 503 | X | 800 | X | 797 | X | 1371 |
| *Panicum effusum* | | | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| *Panicum simile* | X | | | | | 74 | | | | | X | | | 40 | X | | | 165 | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Pomax umbellata* | | | | | X | | | | X | 18 | X | | | 106 | | | | | | | | | | | | | X | |
| *Rytidosperma sp.* | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| *Rytidosperma tenuior* | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 80 |
| *Themeda australis* | | | | | | | | | | | X | | | 64 | X | 260 | X | 65 | X | 207 | X | 1363 | X | 400 | | 524 | X | |
| *Vernonia cinerea* | | | | | | | | | | | X | 173 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Vines Scramblers** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Billardieria scandens* | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| *Clematis aristata* | | | | | | | | | | | X | | | 91 | | | | | | | | | X | | | 120 | | |
| *Clematis glycinoides* | X | | X | | | | X | | | 437 | X | | | 1123 | | 686 | | | X | | | | X | | | | | |
| *Desmodium varians* | | | | | | | | | | | | | | | | | | | | | X | | | 43 | | | | |
| *Eustrephus latifolius* | | | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| *Glycine clandestina* | | | | | | | | | X | | | | | 47 | X | | | 3 | | | | | | | | | | |
| *Hardenbergia violacea* | | | X | | | | | | X | 5 | | | | | | | | | X | | | 133 | X | | | 238 | X | |
| *Kennedia rubicunda* | X | | | | | | X | 135 | X | 212 | | 15 | X | 2 | | | | | | | X | | X | 65 | | 58 | | |
| *Pandorea pandorana* | X | | X | | X | | X | 93 | X | 357 | X | | | 349 | | | | | X | | | 216 | | | | | | |
| *Tylophora barbata* | | | | | | | | | | | | | | | | | | | | | | | X | | | 11 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 4750 | | 4100 | | 8431 | | 16126 | | 14243 | | 12007 | | 11907 | | 5258 | | 13172 | | 15011 | | 11113 | | 9804 |

## Appendix 2

### PLANT SPECIES RECORDED AS AT 2018 IN SYDNEY TURPENTINE IRONBARK FOREST FLORA SURVEYS

**KEY**

**O** - Species of local or regional conservation significance (NPWS 1997).

⊙ - Species of National or State conservation significance.

***** - Introduced or non-indigenous species.

**Study**

**1** – UBM (2003) - Wetland (**W**); Terrestrial (woodland) (**T**); Woodland Buffer (**B**)

**2** – UBMP – Draft Newington Woodland Bush Regeneration Annual Report 2002-2003.

**3** – Burchett & Pulkownik (1995) – Wetland (Mangrove Community [**M**] & Saltmarsh[**S**]); Transition (Casuarina Forest[**C**]) and Terrestrial (Eucalypt Forest & Grassland Community)

**4** – Kachka (1993) - Mangrove Community (**M**); Saltmarsh Community (**S**); Bulrushland (**B**); Rushland (**R**); Casuarina Forest (**C**); Eucalypt Forest (**E**); Shrubland (**H**) and Grassland (**G**). (Note some of these study sites were reconstructed and revegetated as part of site remediation)

**4a** - Hamilton (1919) (quoted in Kachka, 1993) – Estuarine Wetland (**W**)

**4b** - Price (1988) (quoted in Kachka, 1993) – Estuarine Wetland (**W**); Terrestrial (**T**)

**4c** – Clarke & Benson (1988) (quoted in Kachka, 1993) – Estuarine Wetland (**W**); Terrestrial (**T**)

**4d** - GHD (1990) (quoted in Kachka, 1993) – Estuarine Wetland (**W**); Terrestrial (**T**)

**5** – Adam (1991) – Freshwater Wetland, Saline Areas and Grassland Areas

**6** – UBM (2007) – Newington Nature Reserve Flora Survey Update (Woodland and Buffer Zone)

**7** – SOPA (2012) – Newington Nature Reserve Flora Survey Update (Woodland and Buffer Zone)

**8** – SOPA (2018) – Newington Nature Reserve Flora Survey Update (Woodland and Buffer Zone)

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FILICOPSIDA** | | | | | | | | | | | | | | |
| Adiantaceae | *Adiantum aethiopicum* | Common Maidenhair Fern | | | | | | | | | | ✓ | | ✓ |
| Cyatheaceae | *Cyathea sp.* | | | | | | | | | | | | | ✓ |
| Lindsaeaceae | *Lindsaea microphylla* | Lacy Wedge Fern | | | | | | | | | | | | ✓ |
| Schizaeaceae | *Cheilanthes sieberi* ssp. *sieberi* | Mulga Fern | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| **CYCADOPSIDA** | | | | | | | | | | | | | | |
| Zamiaceae | *Macrozamia spiralis* | | | | | | | | | | | ✓ | ✓ | ✓ |
| **DICOTYLEDONS** | | | | | | | | | | | | | | |
| Acanthaceae | *Brunoniella pumilio* | Dwarf Blue Trumpet | | | | | | | | | | | | ✓ |
| Acanthaceae | *Pseuderanthemum variabile* | Pastel Flower | | | | | | | | | | ✓ | ✓ | ✓ |
| Amaranthaceae | *Alternanthera nana* | Hairy Joyweed | | | | | | | | | | | ✓ | ✓ |
| Amaranthaceae | *Alternanthera philoxeroides** | Alligator Weed | | ✓ | | | | | | | ✓ | | ✓ | ✓ |
| Apiaceae | *Centella asiatica* | | W TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Apiaceae | *Cyclospermum leptophyllum** | | | | | | W | W | W | | ✓ | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apiaceae | *Foeniculum vulgare** | Fennel | W | | | H | | | | T | ✓ | | ✓ | |
| Apiaceae | *Hydrocotyle peduncularis* O | | | | | | | T | | | | ✓ | ✓ | |
| Apocynaceae | *Gomphocarpus fruticosus** | Cotton Bush | W | | | | | T | T | | | ✓ | ✓ | ✓ |
| Apocynaceae | *Parsonsia straminea* | Common Silkpod | T | | | | | T | | | | ✓ | ✓ | ✓ |
| Araliaceae | *Astrotricha latifolia* | Broad-leaved Sneeze Bush | | | | | | | | | | ✓ | ✓ | ✓ |
| Araliaceae | *Polyscias elegans* | | | | | | | | | | | | | ✓ |
| Araliaceae | *Polyscias sambucifolia* | Elderberry Panax | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Asclepiadaceae | *Araujia sericifera** | White Moth Vine | | | | | | | | | ✓ | | ✓ | ✓ |
| Asclepiadaceae | *Tylophora barbata* | Celery Wood | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Asteraceae | *Ambrosia tenuifolia** | Lacy Ragweed | | | | | | | | | | | ✓ | ✓ |
| Asteraceae | *Aster subulatus** | | W | | | | W | | | W | ✓ | | ✓ | ✓ |
| Asteraceae | *Bidens pilosa** | Cobbler's Pegs | W TB | | | H | | W | W | | ✓ | ✓ | ✓ | ✓ |
| Asteraceae | *Calotis cuneifolia* O | Blue Burr-daisy | TB | | | | | | | | | ✓ | ✓ | ✓ |
| Asteraceae | *Calotis lappulacea* O | Yellow Burr-daisy | | | | | | T | | | | ✓ | ✓ | ✓ |
| Asteraceae | *Cassinia arcuata* O | | TB | | | | | T | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Asteraceae | *Chrysanthemoides monilifera* ssp. *monilifera** | Boneseed | | | | | | | | | | ✓ | ✓ | ✓ |
| Asteraceae | *Cirsium vulgare** | Spear Thistle | W | | | H | | | | | ✓ | ✓ | ✓ | ✓ |
| Asteraceae | *Conyza bonariensis** | Flax-leaved Fleabane | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Asteraceae | *Cyanthillium cinereum (Syn. Vernonia cinerea)** | | | | | | | T | | | | ✓ | ✓ | ✓ |
| Asteraceae | *Euchiton gymnocephalus* | Cudweed | | | | | | | | | | | ✓ | |
| Asteraceae | *Gamochaeta coarctata** | Cudweed | | | | | | | | | | | ✓ | ✓ |
| Asteraceae | *Hypochaeris radicata** | Catsear | TB | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Asteraceae | *Lactuca saligna** | Willow-leaved Lettuce | | | | | | | | | | | | ✓ |
| Asteraceae | *Ozothamnus diosmifolius* | Dogwood | TB | | | | | | | | | ✓ | ✓ | ✓ |
| Asteraceae | *Senecio hispidulus* | | | | | | | T | | | | | ✓ | ✓ |
| Asteraceae | *Senecio madagascariensis** | Fireweed | W TB | | | | | | | | | ✓ | ✓ | ✓ |
| Asteraceae | *Senecio pterophorus** | Chinese daisy | | | | | | | | | | | ✓ | |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Asteraceae | *Senecio quadridentatum* | | | | | | | | | | | | ✓ | ✓ |
| Asteraceae | *Sigesbeckia orientalis* | Indian Weed | | | | | | | | | | | | ✓ |
| Asteraceae | *Sonchus oleraceus** | Common Sow Thistle | W TB | | | | | W | W | | ✓ | ✓ | ✓ | ✓ |
| Asteraceae | *Taraxacum officinale** | Dandelion | | | | | | | | | ✓ | ✓ | ✓ | |
| Asteraceae | *Vittadinia cuneata* | Fuzzweed | | | | | | | | | | | ✓ | ✓ |
| Asteraceae | *Vittadinia sp.* | | | | | | | | | | | | | ✓ |
| Bignoniaceae | *Jacaranda* sp.* | Jacaranda | B | | | | | | | | | | ✓ | |
| Bignoniaceae | *Pandorea pandorana* | Wonga Wonga Vine | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Boraginaceae | *Heliotropium amplexicaule** | Blue Heliotrope | | | | | | | | | | ✓ | ✓ | |
| Brassicaceae | *Lepidium africanum** | Peppercress | B | | | | | | | | | | ✓ | ✓ |
| Campanulaceae | *Wahlenbergia gracilis* | Native Bluebell | | | | | | W | W | | | ✓ | ✓ | ✓ |
| Cannabaceae | *Trema tomentosa* | Native Peach | | | | | | | | | | | | ✓ |
| Cassythaceae | *Cassytha glabella* | Slender Devil's Twine | T | | | | | T | | | | | | ✓ |
| Cassythaceae | *Cassytha pubescens* | Devil's Twine | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Casuarinaceae | *Allocasuarina littoralis* | Black She-oak | | | | | | | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Casuarinaceae | *Allocasuarina torulosa* | Forest Oak | T | | | | | T | | | | ✓ | ✓ | ✓ |
| Casuarinaceae | *Casuarina glauca* | Swamp Oak | W TB | ✓ | C | C | | W | W | W | ✓ | ✓ | ✓ | ✓ |
| Celastraceae | *Cassine australis* O | | | | | | | | T | | | ✓ | ✓ | ✓ |
| Celastraceae | *Maytenus silvestris* O | | | ✓ | | E | | | | | | ✓ | ✓ | ✓ |
| Chenopodiaceae | *Einadia hastata* | | TB | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Chenopodiaceae | *Einadia nutans* ssp. *linifolia* O | | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Chenopodiaceae | *Einadia nutans* ssp. *nutans* O | | | | | | | | | | | | ✓ | ✓ |
| Chenopodiaceae | *Einadia trigonos* O | | | ✓ | | | | | | | | | ✓ | ✓ |
| Clusiaceae | *Hypericum gramineum* | Small St John's Wort | | | | | | T | T | | | ✓ | ✓ | |
| Convolvulaceae | *Convolvulus erubescens* O | Bindweed | | ✓ | | | | | | | | | ✓ | ✓ |
| Convolvulaceae | *Dichondra repens* | Kidney Weed | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Convolvulaceae | *Polymeria calycina* O | | | | | | | T | | | | ✓ | ✓ | ✓ |
| Dilleniaceae | *Hibbertia aspera* | Rough Guinea Flower | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Dilleniaceae | *Hibbertia diffusa* | | | | | | | | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Droseraceae | *Drosera auriculata* | Sundew | | | | | | | | | | | ✓ | |
| Epacridaceae | *Astroloma humifusum* | | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Epacridaceae | *Lissanthe strigosa* | | T | | | | | T | T | | | | ✓ | ✓ |
| Epacridaceae | *Leucopogon juniperinus* O | Bearded Heath | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Euphorbiaceae | *Euphorbia* sp.* | | | | | | | | | T | | | | |
| Euphorbiaceae | *Homalanthus nutans*<br>*Syn. Omalanthus populifolius* | Bleeding Heart | W | | | | | | | | | | ✓ | ✓ |
| Fabaceae: Faboideae | *Bossiaea prostrata* O | | | | | | | | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Daviesia ulicifolia* | Gorse Bitter Pea | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Desmodium varians* | | T | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Dillwynia sieberi* | Prickly Parrot Pea | | | | | | | | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Glycine clandestina* | Love Creeper | TB | | | | | T | T | | ✓ | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Glycine microphylla* O | | | | | | | | | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Glycine tabacina* | Love Creeper | T | | | | | T | | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Gompholobium minus* | Wedge-pea | | | | | | T | | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Hardenbergia* | False Sarsparilla | W | | | H | | T | T | T | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *violacea* | | T | | | | | | | | | | | |
| Fabaceae: Faboideae | *Hovea linearis* | | | | | | | | | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Hovea longifolia* | | T | | | | | T | T | | | | ✓ | ✓ |
| Fabaceae: Faboideae | *Indigofera australis* | | | | | | | | T | | | | ✓ | ✓ |
| Fabaceae: Faboideae | *Kennedia rubicunda* | Dusky Coral Pea | W TB | | | H | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Lotus angustissima** | | W | | | | | W | W | | | | ✓ | ✓ |
| Fabaceae: Faboideae | *Melilotus indicus** | | W | | | | | | | WT | ✓ | | ✓ | ✓ |
| Fabaceae: Faboideae | *Platylobium formosum* O | | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Podolobium ilicifolium*<br>*Syn. Oxylobium ilicifolium* | Native Holly | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Pultenaea villosa* | | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Vicia sativa** | Vetch | W B | | | | | W | W | | ✓ | ✓ | ✓ | ✓ |
| Fabaceae: Faboideae | *Zornia dyctiocarpa* O | | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia binervia* | Coast Myall | | | | | | | | | | | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia decurrens* | Green Wattle | TB | | | | | T | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fabaceae: Mimosoideae | *Acacia falcata* | Sickle-leaved Wattle | TB | | | H | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia falciformis* O | Broad-leaved Hickory | | ✓ | | | | | | | | | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia fimbriata* O | Fringed Wattle | | | | | | | | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia floribunda* | Sally Wattle | | | | | | | | | | | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia longifolia* var. *longifolia* | Sydney Golden Wattle | W TB | | | CEH | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia mearnsii* | Black Wattle | | | | | | | | | | ✓ | ✓ | |
| Fabaceae: Mimosoideae | *Acacia myrtifolia* O | Myrtle Wattle | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia paradoxa* O | Kangaroo Thorn | B | ✓ | | | | | | | | ✓ | ✓ | |
| Fabaceae: Mimosoideae | *Acacia parramattensis* | Parramatta Green Wattle | W TB | | | EH | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia stricta* O | | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia suaveolens* | Sweet Wattle | TB | | | H | | | T | | | | ✓ | ✓ |
| Fabaceae: Mimosoideae | *Acacia ulicifolia* | Prickly Moses | TB | | | H | | T | | | | ✓ | ✓ | ✓ |
| Fagaceae | *Quercus* sp.* | Oak | B | | | | | | | | | | ✓ | ✓ |
| Gentianaceae | *Centaurium erythraea** | Common Centaury | | | | | | W | W | | ✓ | ✓ | ✓ | |
| Gentianaceae | *Centaurium tenuiflorum** | | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Geraniaceae | *Pelargonium* | | | | | | | | | | | | | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *inodorum* | | | | | | | | | | | | | |
| Goodeniaceae | *Goodenia hederacea* | Ivy Goodenia | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Goodeniaceae | *Goodenia ovata* | Goodenia | | | | | | | | | ✓ | | ✓ | ✓ |
| Goodeniaceae | *Goodenia paniculata* | Goodenia | | | | | | T | | | | | ✓ | |
| Haloragaceae | *Gonocarpus tetragynus* | | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Lauraceae | *Cinnamomum camphora** | Camphor Laurel | W | | | E | | | | | ✓ | ✓ | ✓ | ✓ |
| Linaceae | *Linum marginale* O | Native Flax | | | | | | | | | | ✓ | ✓ | ✓ |
| Linaceae | *Linum trigynum** | French Flax | | | | | | | | | | ✓ | ✓ | ✓ |
| Lobeliaceae | *Lobelia dentata* | | | | | | | | | | | | ✓ | |
| Lobeliaceae | *Pratia purpurascens* | White Root | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Loganiaceae | *Logania albiflora* | | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Loranthaceae | *Muellerina eucalyptoides* | | | | | | | | | | | | ✓ | ✓ |
| Malvaceae | *Modiola caroliniana** | Red-flowered Mallow | | | | | | | | | | | | ✓ |
| Malvaceae | *Sida rhombifolia** | Paddy's Lucerne | W T | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Menispermaceae | *Sarcopetalum harveyanum* O | | T | | | | | T | T | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Moraceae | *Ficus macrophylla** | Moreton Bay Fig | B | | | H | | | | | | | ✓ | ✓ |
| Moraceae | *Ficus rubiginosa* | Port Jackson Fig | | | | M | | | | | | | ✓ | ✓ |
| Myoporaceae | *Eremophila debilis* ○ | Winter Apple | T | ✓ | | | | W | W | | | ✓ | ✓ | ✓ |
| Myoporaceae | *Myoporum boninense* ○ | | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Backhousia myrtifolia* | Grey Myrtle | | | | | | | | | | | ✓ | ✓ |
| Myrtaceae | *Callistemon salignus* | Willow Bottlebrush | | | | | | | | | | | | ✓ |
| Myrtaceae | *Callistemon viminalis** | Weeping Bottlebrush | | | | | | | | | | | ✓ | ✓ |
| Myrtaceae | *Corymbia gummifera* | Red Bloodwood | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus acmenoides* ○ | White Mahogany | | | | | | | | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus fibrosa* ssp. *Fibrosa* | Broad-leaved Ironbark | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus globoidea* ○ | White Stringybark | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus haemastoma* ○ | Scribbly Gum | TB | | | E | | T | T | | | ✓ | | |
| Myrtaceae | *Eucalyptus longifolia* | Woollybutt | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus microcorys** | Tallowwood | | | | | | | | | | | | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Myrtaceae | *Eucalyptus moluccana* | Grey Box | | | | | | T | | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus paniculata* O | Grey Ironbark | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus pilularis* O | Blackbutt | T | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus punctata* | Grey Gum | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Eucalyptus racemosa* | Hard-leafed Scribbly Gum | | | | | | | | | | | ✓ | ✓ |
| Myrtaceae | *Eucalyptus resinifera* ssp. *resinifera* | Red Mahogany | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Kunzea ambigua* | White Tick Bush | W T | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Melaleuca decora* | Honeymyrtle | W B | | | | | | | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Melaleuca nodosa* | Ball Honeymyrtle | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Myrtaceae | *Melaleuca quinquinervia** | Broad-leaved Paperbark | B | | | | | | | | | | ✓ | ✓ |
| Myrtaceae | *Syncarpia glomulifera* | Turpentine | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Ochnaceae | *Ochna serrulata** | Mickey Mouse Plant | | | | | | | | | | ✓ | ✓ | ✓ |
| Oleaceae | *Ligustrum lucidum** | Large-leaved Privet | | | | C | | | | | ✓ | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oleaceae | *Ligustrum sinense** | Small-leaved Privet | W | | | | | | | | ✓ | | ✓ | |
| Oleaceae | *Notelaea longifolia* | Mock Olive | T | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Oleaceae | *Olea europaea* ssp. *africana** | African Olive | B | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Onagraceae | *Epilobium* sp. | | | | | | | | | | ✓ | | ✓ | ✓ |
| Oxalidaceae | *Oxalis corniculata** | Creeping Oxalis | W TB | | | | | T | T | | | ✓ | ✓ | |
| Oxalidaceae | *Oxalis perennans* ○ | | | | | | | | | | | ✓ | ✓ | ✓ |
| Passifloraceae | *Passiflora herbertiana* | Native Passionfruit | | | | | | | | | | | | ✓ |
| Passifloraceae | *Passiflora suberosa** | Cork Passionflower | | | | | | | | | | ✓ | ✓ | ✓ |
| Phyllanthaceae | *Breynia oblongifolia* | Breynia | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Phyllanthaceae | *Glochidion ferdinandi var ferdinandi* | Cheese Tree | | | | | | | | | | ✓ | ✓ | ✓ |
| Phyllanthaceae | *Phyllanthus gunnii* | Scrubby Spurge | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Phyllanthaceae | *Phyllanthus hirtellus* | Thyme Spurge | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Phyllanthaceae | *Phyllanthus virgatus* | | | | | | | | | | | | | ✓ |
| Phyllanthaceae | *Poranthera microphylla* | | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Phytolaccaceae | *Phytolacca octandra* | Inkweed | | | | | | | | | | | | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pittosporaceae | *Billardiera scandens* | Apple-berry | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Pittosporaceae | *Bursaria spinosa* | Blackthorn | | | | | | | T | | | | ✓ | |
| Pittosporaceae | *Pittosporum multiflorum* | Orange Thorn | | | | | | | | | | | ✓ | ✓ |
| Pittosporaceae | *Pittosporum revolutum* | Rough-fruited Pittosporum | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Pittosporaceae | *Pittosporum undulatum* | Sweet Pittosporum | W TB | | | CE | | T | T | | | ✓ | ✓ | ✓ |
| Plantaginaceae | *Plantago lanceolata** | Plantain | W TB | | | | | | | T | ✓ | ✓ | ✓ | ✓ |
| Polygonaceae | *Rumex brownii* O | Mud Dock | B | | | | | | | | | ✓ | ✓ | ✓ |
| Primulaceae | *Lysimachia arvensis** | Pimpernel | | | | | | | | T | ✓ | ✓ | ✓ | ✓ |
| Primulaceae | *Myrsine variabilis (syn. Rapanea variabilis)* | Muttonwood | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Proteaceae | *Hakea dactyloides* | Finger Hakea | | | | | | | | | | | ✓ | |
| Proteaceae | *Hakea* aff. *propinqua* | | | | | | | | | | | | ✓ | ✓ |
| Proteaceae | *Hakea sericea* | Bushy Needlebush | T | | | | | | | | | ✓ | ✓ | ✓ |
| Proteaceae | *Persoonia levis* | Broad-leaved Geebung | | | | | | | | | | ✓ | ✓ | ✓ |
| Proteaceae | *Persoonia linearis* | Narrow-leaved | | | | | | | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Geebung | | | | | | | | | | | | |
| Proteaceae | *Persoonia pinifolia*O | Pine-leaved Geebung | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Ranunculaceae | *Clematis aristata* | Old Man's Beard | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Ranunculaceae | *Clematis glycinoides* | Forest Clematis | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Rhamnaceae | *Pomaderris discolor* | Pomaderris | | | | | | | | | | | ✓ | ✓ |
| Rhamnaceae | *Pomaderris ferruginea*O | Rusty Pomaderris | T | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Rhamnaceae | *Pomaderris lanigera* O | Woolly Pomaderris | T | | | E | | | T | | | | ✓ | ✓ |
| Rosaceae | *Prunus persica** | Peach | | | | | | | | | | | | ✓ |
| Rosaceae | *Rubus fruticosus** | Blackberry | T | | | C | | | | | | | ✓ | |
| Rosaceae | *Rubus parvifolius* | Native Raspberry | | | | | | | | | | | ✓ | ✓ |
| Rubiaceae | *Opercularia aspera* | | | | | | | T | | | | ✓ | ✓ | ✓ |
| Rubiaceae | *Opercularia diphylla* | | | | | | | T | | | | ✓ | ✓ | ✓ |
| Rubiaceae | *Opercularia hispida* O | | | | | | | | | | | ✓ | ✓ | ✓ |
| Rubiaceae | *Opercularia varia* | | T | | | | | T | T | | | | ✓ | ✓ |
| Rubiaceae | *Pomax umbellata* | Pomax | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Rubiaceae | *Richardia stellaris** | | | | | | | | | | | ✓ | ✓ | ✓ |
| Rubiaceae | *Sherardia arvensis** | | | | | | | W | W | | | | ✓ | |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rutaceae | *Boronia polygalifolia* ○ | Milkwort Boronia | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Rutaceae | *Correa reflexa* | | | | | | | | | | | | ✓ | |
| Rutaceae | *Zieria smithii* | Sandfly Zieria | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Santalaceae | *Exocarpos cupressiformis* | Cherry Ballart | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Sapindaceae | *Cupaniopsis anacardioides* ○ | Tuckeroo (seedlings) | | | | | | | | | | ✓ | ✓ | ✓ |
| Sapindaceae | *Dodonaea triquetra* | Common Hop Bush | W TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Scrophulariaceae | *Veronica plebeia* | Trailing Speedwell | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Solanaceae | *Nicandra physalodes** | Apple-of-Peru | | | | | | | | | | | | ✓ |
| Solanaceae | *Solanum aviculare* | Kangaroo Apple | | | | | | | | | | | | ✓ |
| Solanaceae | *Solanum nigrum** | Black Nightshade | W TB | | | | | | | | | ✓ | ✓ | ✓ |
| Solanaceae | *Solanum prinophyllum* | Forest Nightshade | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Solanaceae | *Solanum sisymbriifolium** | | | | | | | | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stackhousiaceae | *Stackhousia viminea* | | | | | | | T | | | | ✓ | ✓ | ✓ |
| Sterculiaceae | *Brachychiton acerifolius* * | Flame Tree | | | | | | | | | | ✓ | ✓ | |
| Sterculiaceae | *Brachychiton populneus* O | Kurrajong | T | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Sterculiaceae | *Lasiopetalum parviflorum* O | Rusty Petals | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Verbenaceae | *Clerodendron tomentosum* | Hairy Clerodendrum | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Verbenaceae | *Lantana camara** | Lantana | W TB | | | MC EH | | W | | | | ✓ | ✓ | ✓ |
| Verbenaceae | *Verbena bonariensis** | Purple Top | | | | H | | | | | ✓ | ✓ | ✓ | ✓ |
| Vitaceae | *Cayratia clematidea* | Slender Grape | W | | | | | WT | T | | | ✓ | ✓ | ✓ |
| MONOCOTYLEDONS | | | | | | | | | | | | | | |
| Alliaceae | *Nothoscordum borbonicum** *(N. gracile*)* | Onion Weed | | | | | | | | | ✓ | | ✓ | ✓ |
| Anthericaceae | *Arthropodium milleflorum* O | Pale Vanilla Lily | | | | | | | | | | | ✓ | ✓ |
| Anthericaceae | *Laxmannia gracilis* | | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Araceae | *Livistona australis* O | Cabbage Palm | | | | | | | | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Araceae | *Phoenix canariensis* * | Canary Island Date Palm | | | | | | | | | | ✓ | ✓ | ✓ |
| Asparagaceae | *Asparagus aethiopicus** | Asparagus Fern | T | | | | | | | | | ✓ | ✓ | ✓ |
| Commelinaceae | *Commelina cyanea* | | | | | | | | | | | | | ✓ |
| Cyperaceae | *Carex inversa* | | | | | | | | | | | | ✓ | ✓ |
| Cyperaceae | *Cyathochaeta diandra* | | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Cyperaceae | *Cyperus polystachyos* O | Sedge | | | | | | | | | ✓ | | ✓ | ✓ |
| Cyperaceae | *Gahnia aspera* | Saw Sedge | | | | | | | | | | | ✓ | ✓ |
| Cyperaceae | *Lepidosperma laterale* | Sword-sedge | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Cyperaceae | *Schoenus apogon* | | | | | | | T | WT | | | | ✓ | ✓ |
| Iridaceae | *Crocosmia X crocosmiiflora** | Montbretia | | | | | | | | | ✓ | | ✓ | ✓ |
| Juncaceae | *Juncus polyanthemos* | | | | | | | | | | | | ✓ | ✓ |
| Lomandraceae | *Lomandra filiformis* ssp. *filiformis* | | | | | | | | | | | ✓ | ✓ | ✓ |
| Lomandraceae | *Lomandra glauca* | Mat Rush | | | | | | | T | | | ✓ | ✓ | ✓ |
| Lomandraceae | *Lomandra longifolia* | Spiny-headed Mat | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Rush | | | | | | | | | | | | |
| Lomandraceae | *Lomandra multiflora* | Many-flowered Mat-rush | | | | | | | | | | ✓ | ✓ | ✓ |
| Luzuriagaceae (Philesiaceae) | *Eustrephus latifolius* | Wombat Berry | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Orchidaceae | *Caladenia carnea* | Pink Fingers | | | | | | | | | | | ✓ | |
| Orchidaceae | *Caladenia catenata* | White Fingers | | | | | | | | | | | ✓ | ✓ |
| Orchidaceae | *Calochilus campestris* | Copper Beard Orchid | | | | | | T | T | | | ✓ | ✓ | ✓ |
| Orchidaceae | *Calochilus gracillimus* | Late Beard Orchid | | | | | | | | | | | | ✓ |
| Orchidaceae | *Dipodium variegatum* | Hyacinth Orchid | | | | | | | | | | | ✓ | ✓ |
| Orchidaceae | *Microtis* sp. | | | | | | | T | | | | ✓ | ✓ | ✓ |
| Orchidaceae | *Orthoceras strictum* | Horned Orchid | | | | | | | | | | | ✓ | |
| Orchidaceae | *Pterostylis concinna* | Trim Greenhood | | | | | | | | | | | ✓ | ✓ |
| Orchidaceae | *Thelymitra carnea* | Pink Sun Orchid | | | | | | | | | | | ✓ | |
| Orchidaceae | *Thelymitra pauciflora* | Slender Sun Orchid | | | | | | | | | | | ✓ | ✓ |
| Phormiaceae | *Dianella brevicaulis** | | | | | | | | | | | | ✓ | ✓ |
| Phormiaceae | *Dianella caerulea var product* | Blue Flax Lily | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Phormiaceae | *Dianella longifolia* | Blue Flax Lily | T | | | | | T | | | | | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phormiaceae | *Dianella revoluta* | Blue Flax Lily | | | | | | T | | | | ✓ | ✓ | ✓ |
| Poaceae | *Andropogon virginicus** | Whisky Grass | TB | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Aristida ramosa* | Purple Wiregrass | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Aristida vagans* | Three-awned Spear Grass | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Aristida warburgii* | | | | | | | T | T | | | | | ✓ |
| Poaceae | *Austrodanthonia bipartita* ○ | Wallaby Grass<br>Syn: *Danthonia linkii* | B | | | | | T | | | | ✓ | ✓ | ✓ |
| Poaceae | *Austrodanthonia pilosa* | | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Austrodanthonia setacea* | | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Austrodanthonia tenuior* | Wallaby Grass | TB | | | | | T | | | | ✓ | ✓ | ✓ |
| Poaceae | *Austrostipa pubescens* | Spear Grass | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Austrostipa rudis ssp. rudis* | Spear Grass | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Austrostipa ramosissima* | Spear Grass | T | | | | | T | T | | | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Poaceae | *Austrostipa scabra ssp. falcata* | | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Avena* sp.* | Wild Oats | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Axonopus affinis** | Carpet Grass | TB | | | H | | | | | | ✓ | ✓ | ✓ |
| Poaceae | *Bothriochloa macra* O | Redleg Grass | W TB | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Poaceae | *Briza maxima** | Quaking Grass | | ✓ | | | | | | W | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Briza minor** | Shivery Grass | | | | | | W | W | | ✓ | | ✓ | ✓ |
| Poaceae | *Briza subaristata** | Shivery Grass | B | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Bromus catharticus** | Prairie Grass | | | | | | | | T | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Capillipedium parviflorum* | Scented-top Grass | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Chloris gayana** | Rhodes Grass | B | | | | | | | | ✓ | | ✓ | ✓ |
| Poaceae | *Chloris ventricosa* | Windmill Grass | | | | | | | | | | | | ✓ |
| Poaceae | *Cymbopogon refractus* | Barbed Wire Grass | TB | | | | | T | | | | ✓ | ✓ | ✓ |
| Poaceae | *Cynodon dactylon** | Couch | W TB | | | SH | | T | | WT | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Dichelachne micrantha* | Shorthair Plume Grass | TB | | | | | | | | ✓ | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Poaceae | *Digitaria ciliaris** | Summer Grass | | | | | | | | | | | | ✓ |
| Poaceae | *Digitaria diffusa* | Open Summer Grass | | | | | | | | | | | | ✓ |
| Poaceae | *Digitaria ramularis* | | | | | | | | | | | | | ✓ |
| Poaceae | *Echinopogon caespitosus* | Hedgehog Grass | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Ehrharta erecta** | Panic Veldt Grass | B | | | | | | | | | ✓ | ✓ | ✓ |
| Poaceae | *Ehrharta longifolia** | Annual Veldtgrass | | | | | | | | | | | | ✓ |
| Poaceae | *Elymus scaber* O<br>*Syn. Agropyron scabrum* | | | | | | | | | T | | ✓ | ✓ | ✓ |
| Poaceae | *Entolasia marginata* | Bordered Panic | T | | | | | T | | | | ✓ | ✓ | ✓ |
| Poaceae | *Entolasia stricta* | Wiry Panic | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Eragrostis benthamii* O | Lovegrass | T | | | | | T | | | | | ✓ | ✓ |
| Poaceae | *Eragrostis brownii* | Brown's Lovegrass | T | | | | | T | T | | | | ✓ | ✓ |
| Poaceae | *Eragrostis curvula** | African Lovegrass | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Poaceae | *Eragrostis leptostachya* | Lovegrass | | | | | | T | | | | ✓ | ✓ | ✓ |
| Poaceae | *Eriochloa pseudoacrotricha* | Early Spring Grass | | | | | | | | | | | | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Poaceae | *Festuca elatior** | Tall Fescue | | ✓ | | | | | | | ✓ | | ✓ | ✓ |
| Poaceae | *Imperata cylindrica* var *major* | Blady Grass | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Lachnagrostis filliformis*<br>*Syn. Agrostis avenacea* | Blown Grass | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Melinis repens** | Red Natal Grass | B | ✓ | | | | | | | | | ✓ | ✓ |
| Poaceae | *Microlaena stipoides* var. *stipoides* | Weeping Meadow Grass | TB | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Oplismenus aemulus* | Basket Grass | T | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Oplismenus imbecillis* | Basket Grass | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Panicum pygmaeum* | Pygmy Panic | | | | | | | | | | | | ✓ |
| Poaceae | *Panicum simile* | Two Colour Panic | T | | | | | T | T | | | ✓ | ✓ | ✓ |
| Poaceae | *Paspalidium criniforme* ○ | | | | | | | | | | | | ✓ | ✓ |
| Poaceae | *Paspalidium distans* | Paspalidium | TB | | | | | | | | | ✓ | ✓ | ✓ |
| Poaceae | *Paspalum dilatatum** | Paspalum | W TB | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Pennisetum clandestinum** | Kikuyu | W TB | | | SEH G | | | | | ✓ | ✓ | ✓ | ✓ |

| FAMILY | SPECIES | COMMON NAME | 1 | 2 | 3 | 4 | 4a | 4b | 4c | 4d | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Poaceae | *Poa labillardieri* O | Tussock Grass | | | | | | T | | | | | ✓ | |
| Poaceae | *Setaria gracilis** | Slender Pigeon Grass | W TB | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Poaceae | *Themeda australis* | Kangaroo Grass | TB | | | E | | T | T | | | ✓ | ✓ | ✓ |
| Smilacaceae | *Smilax australis* | Native Sarsaparilla | | | | | | T | T | | | | ✓ | |
| Smilacaceae | *Smilax glyciphylla* | Sarsaparilla | | | | | | | | | | ✓ | ✓ | ✓ |