

Hornsby Shire Heritage Review -Stage 4

Volume 2 of 4

Part A: Review of Heritage Listed Trees
Normanhurst – West Pennant Hills



HORNSBY SHIRE COUNCIL

PREPARED BY: LANDARC PTY LIMITED IN ASSOCIATION WITH
PATRICK O'CARRIGAN + PARTNERS

11 January 2008

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Calga Avenue, Normanhurst – Road reserve

Image/s:



Caption: View of Calga Avenue looking east near Stuart Avenue intersection – remnant native trees/ Blue Gum High Forest (BGHF) community dominated by Sydney Blue Gum (*Eucalyptus saligna*) and Blackbutt (*E. pilularis*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007

Image Path:

Image File: P4110412.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Calga Avenue, Normanhurst – Road reserve

Address: Calga Avenue, Normanhurst – Road Reserve

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This small and highly fragmented group of native trees are components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The BGHF community has a highly restricted geographical distribution and is typically associated with soils derived from Wianamatta Shale. Clearing for agriculture and more recently, urban development, has reduced the size of this community to less than 5% of its original extent (Tozer 2003). This group, dominated by Sydney Blue Gums (*Eucalyptus saligna*), is considered to be significant in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The dramatic size and scale of these trees creates a memorable sense of place and bushland aesthetic to this suburban streetscape.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Calga Avenue, Normanhurst – Road reserve

There is a major cluster of trees at the western end of Calga Avenue which is more or less contiguous with a BGHF group in the lower portion of Stuart Avenue (not currently heritage listed). Furthermore, these trees are part of a larger, albeit highly fragmented BGHF community, now scattered throughout local road verges and private gardens (refer to other local listings).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees (BGHF community) have been retained/ protected within the public verges and adjoining private gardens. Native tree species include the following:-

Common Name(s):

Blackbutt
Sydney Blue Gum

Botanical Name(s):

Eucalyptus pilularis
Eucalyptus saligna [dominant]

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verges/ roadway and adjoining private properties. The root zones are likely to extend to a similar area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 20-25 metres

Trunk Diameter: av. 400mm-600mm (up to 900mm) @ 1.0 metre above ground level

Estimated Age: av. 40-60 years+ / old growth specimens up to 100-120 years+

Integrity/ Intactness: Only native canopy species are retained within group structure [ie. no sub-canopy or understorey species are present]. A major cluster occurs adjacent to Nos.8-10 Calga Avenue. This group extends to the lower portion of Stuart Avenue. The public verges and adjoining private gardens (ie. Nos.32-34, 40 and 41 Stuart Avenue) retain a significant BGHF group of varying age structure. Notably, an old growth specimen (25 metres in height, 28 metres canopy spread and 1300mm DBH) is located on the verge adjacent to Nos.27-29 Stuart Avenue (near the corner/ intersection with Calga Avenue).

Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, maintenance and tree removals]. Remnant BGHF groups are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition however many trees display substantial and unsympathetic lopping/ alignment to canopies for overhead powerlines. The trees have a varying level of insect damage, some with

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Calga Avenue, Normanhurst – Road reserve

cavities/ hollows and dead wood in the crowns (eg. *Eucalyptus saligna* on verge adjacent to No.8 Calga Avenue).

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. Seek to establish a broader palette of locally-sourced BGHF species. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends that the Stewart Avenue group of remnant Blue Gum High Forest (near the western end of Calga Avenue) be included as a separate listing in the Hornsby Shire LEP.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Calga Avenue, Normanhurst – Road reserve

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Campbell Avenue, Normanhurst – Road reserve

Image/s:



Caption: View of Campbell Avenue looking south – remnant native trees/ Blue Gum High Forest (BGHF) community with mature Sydney Blue Gum (*Eucalyptus saligna*) [centre].

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 18.07.2007

Image Path:

Image File: P4110410.jpg

Thumb Nail Path:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Campbell Avenue, Normanhurst – Road reserve

Thumb Nail File: additional P7181026.jpg – view of BGHF group (*Eucalyptus saligna*) [right foreground] looking south adjacent to Nos.16-20 Campbell Avenue; P7181027.jpg – view of major BGHF group looking south (opposite No.38 Campbell Avenue); and P7181028.jpg – view looking north showing *Eucalyptus saligna* group in No.47 Campbell Avenue.

Address: Calga Avenue, Normanhurst – Road Reserve

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This large but highly fragmented group of native trees are components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest (BGHF) has a highly restricted geographic distribution and is typically associated with soils derived from Wianamatta Shale (Tozer 2003). This community has been highly fragmented and modified by urban development, particularly small-scale clearing and alterations associated with residential subdivision, roads and service easement upgrades. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Campbell Avenue, Normanhurst – Road reserve

endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*.

This group, dominated by Sydney Blue Gums (*Eucalyptus saligna*), is considered to be significant in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The dramatic size and scale of these trees defines a special sense of place and bushland aesthetic to this suburban streetscape. Some old growth specimen trees are of individual significance. Furthermore, these trees are part of a larger, albeit highly fragmented BGHF community, now scattered throughout local road verges and private gardens (refer to Calga Avenue and other local listings).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees (BGHF community) have been retained/ protected within the public verges and adjoining private gardens. Native tree species include the following:-

Common Name(s):	Botanical Name(s):
Rough-barked Apple	<i>Angophora floribunda</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Sydney Blue Gum	<i>Eucalyptus saligna</i> [dominant]

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verges/ roadway and adjoining private properties. The root zones are likely to extend to a similar area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 20-25 metres

Trunk Diameter: av. 450mm-700mm (up to 1200mm) @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- old growth specimens up to 100-120 years+

Integrity/ Intactness: Only native canopy species are retained within group structure [ie. no sub-canopy or understorey species are present]. Remnant trees are scattered along the road verges and private gardens between Nos.12-14A/ 15-17 to 52 Campbell Avenue. There are large gaps in the canopy in many sections. The major group occurs on the verges adjacent to Nos.42-52 Campbell Avenue and adjoining private gardens of 44-46 Campbell Avenue.

Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, maintenance and tree removals]. Remnant BGHF groups are increasingly vulnerable to further fragmentation and attrition and may be

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Campbell Avenue, Normanhurst – Road reserve

lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. The trees have a varying level of insect damage, some with cavities/ hollows and dead wood in the crowns (eg. *Eucalyptus saligna* in No.47 Campbell Avenue (front garden) has a large basal cavity/ dead wood and should be inspected by a qualified arborist).

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. Seek to establish a broader palette of locally-sourced BGHF species. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Campbell Avenue, Normanhurst – Road reserve

Benson, D & Howell, J. (1990) Taken for Granted. (Kangaroo Press)

Tozer, MG. (2003) Cunninghamia 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Denman Parade, Normanhurst – Road reserve

Image/s:



Caption: View of mixed Brush Box/ Camphor Laurel row plantation looking north-east along Denman Parade (near Buckingham Avenue).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110405.jpg

Thumb Nail Path:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Denman Parade, Normanhurst – Road reserve

Thumb Nail File: additional P4110403.jpg and P4110404.jpg – view of remnant native tree groups/ Blue Gum High Forest (BGHF) community along Denman Parade.

Address: Denman Parade – Road Reserve

Suburb/ Nearest Town: Hornsby NSW 2077

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Row plantation (cultural planting) on public verge as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – native/ exotic planting

Category: Trees – street trees [formal row plantation]

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: A formal row plantation of Brush Box (*Lophostemon confertus*), located to the north and south of Buckingham Avenue intersection (adjacent to the railway corridor and Normanhurst Railway Station), is believed to date from c.1950s period. Two Camphor Laurels (*Cinnamomum camphora*) are included within the southern group (ie. south of Buckingham Avenue). Overall integrity of the avenue has been compromised by losses and heavy pruning (pollarding) of canopies, particularly under overhead power lines along the northern verge. The row plantation has local group significance in terms of its historic/ cultural associations, visual, aesthetic and representative values. Both species have been used extensively in street tree plantations throughout Sydney since the early twentieth century. Hornsby Shire retains significant Post War period

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Denman Parade, Normanhurst – Road reserve

plantations (refer to listings). Camphor Laurel however is listed as a noxious weed in the Hornsby Shire (HSBCS 2006 - Appendix 14).

In addition to the above cultivated trees, Denman Parade (ie. the road reserve, Davidson Park and adjoining private gardens) conserves remnant Blue Gum High Forest (BGHF). Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The group includes a diverse range of species and a number of old growth specimens.

Historical Notes or

Provenance: Brush Box avenue/ row plantation believed to have been planted c.1950s (Perumal Murphy Wu Pty Ltd, 1993). No data relating to remnant Blue Gum High Forest in Denman Parade was provided in the HSHS or HSLEP.

Physical Description: The row plantation is located along the verge immediately north and south of Buckingham Avenue (adjacent to Normanhurst Railway Station/ rail corridor). The plantation is comprised of the following species:-

Common Name(s):	Botanical Name(s):
Brush Box	<i>Lophostemon confertus</i> [12 No.]
Camphor Laurel	<i>Cinnamomum camphora</i> [2 No.]

Common Name(s):	Botanical Name(s):
Brush Box	<i>Lophostemon confertus</i>

Origin: ornamental/ cultivated (*L. confertus* – NSW north coast and Qld. and *C. camphora* – China).

Extent of Influence: Canopies extend over public verge and partially over roadway and rail lands. The root zones are likely to extend to a similar area of influence.

Height: up to 10-12 metres; lopped 6-7 metres

Canopy Spread: av. 6-10 metres

Trunk Diameter: 300mm-600mm @ 1.0 metre above ground level

Estimated Age: 50-60 years+

Integrity/ Intactness: Heavy crown pruning (pollarding) has reduced overall integrity of the group. Remaining trees are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed. Other management options (eg. aerial bundling of power lines) should be considered in the context of these heritage trees.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Denman Parade, Normanhurst – Road reserve

Condition/ Health: Most trees appear to be in fair to good condition, typical of this species, age group/ structure with extensive pruning/ alignment to canopies for overhead power lines [northern verge].

Recommended

Management: RETAIN LOCAL HERITAGE LISTING IN HSLEP (ie. Brush Box group). The heritage listing should exclude the two Camphor Laurels.

and

HSLEP4 – REVIEW recommends that remnant tree groups/ Blue Gum High Forest (BGHF) community in Denman Parade (ie. the road reserve, public reserve and adjoining private gardens) be included in this heritage listing.

THIS GROUP IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Further Comments: Historic/ cultural associations with urban development
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g)

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Ferndale Road, Normanhurst – Road reserve

Image/s:



Caption: View of scattered remnant native trees in lower end of Ferndale Road – Turpentine (*Syncarpia glomulifera*) [right/ centre background].

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007

Image Path:

Image File: P4110409.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Ferndale Road, Normanhurst – Road reserve

Address: Ferndale Road, Normanhurst – Road Reserve

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant scattered grouping of native trees in road reserve (public verge) and mainly within adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary:

Item Type: Landscape – Natural

Group: Vegetation communities – remnant tree group/ Blackbutt Gully Forest

Category: Trees – street trees [informal groupings]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: The public verges and adjoining private gardens along Ferndale Road (between Nicholas Crescent and Redgrave Road intersections) support a remnant native tree group. These are components (canopy trees) of the Blackbutt Gully Forest (Smith & Smith 2007), previously described as Sydney Sandstone Gully Forest (Map Unit 10agii) (Benson & Howell 1994). The group is considered to have local significance in terms of its natural, representative, rarity, ecological/ biodiversity, visual and aesthetic values. Although common in the Hornsby Shire, this community is uncommon and poorly conserved outside the Shire (Smith & Smith 2007 and HSBCS 2006). The group is dominated by Turpentine (*Syncarpia glomulifera*), Blackbutt (*Eucalyptus pilularis*) and Smooth-barked Apple (*Angophora costata*). Some old growth specimens are of individual significance.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Ferndale Road, Normanhurst – Road reserve

Physical Description: These native trees have been retained/ protected mainly within private gardens and to a lesser degree, the public verge. Most trees are retained in the lower section of Ferndale Road (between Nicholas Crescent and Redgrave Road intersections). Remnant tree species include the following:-

Common Name(s):	Botanical Name(s):
Smooth-barked Apple	<i>Angophora costata</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Turpentine	<i>Syncarpia glomulifera</i>

Origin: natural occurrence (Blackbutt Gully Forest)

Extent of Influence: Canopies extend over private properties and partially over the public verge and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 16-25 metres

Canopy Spread: up to 10-20 metres

Trunk Diameter: av. 300mm-600mm; up to 1000mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only canopy and sub-canopy tree species are retained within the group structure [ie. no understorey species are present]. Notably, old growth specimens *Eucalyptus pilularis* occur in private gardens of Nos.37-39 and 65 Ferndale Road. A major contiguous group (*Syncarpia glomulifera* dominant) occurs between Nos.37-59 Ferndale Road.

Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, general garden maintenance and tree removals]. This remnant group is increasingly vulnerable to further fragmentation and attrition (eg. residential sub-division/ development) and may be lost altogether over time unless these issues are properly addressed.

Condition/ Health: Most trees appear to be in good condition with minimal pruning to canopies. Trees display a varying level of insect damage, cavities/ hollows and some dead wood in the crowns.

Recommended

Management: RETAIN LOCAL HERITAGE LISTING IN HSLEP.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly along public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Ferndale Road, Normanhurst – Road reserve

assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (Blackbutt Gully Forest – local significance)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Dadd, P., Council corro DA/1490 22/11/2005 File Ref: D00308459).
Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire 2007
Native Vegetation of the Cumberland Plain DE&CC (NSW) 2002
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 23.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fraser Road, Normanhurst – Road reserve

Image/s:



Caption: View of the western end of Fraser Road (adjoining grounds of Normanhurst Boys High School) – Remnant native trees/ Blue Gum High Forest (BGHF) including Grey Ironbark (*Eucalyptus paniculata*), Sydney Blue Gum (*E. saligna*) and Rough-barked Apple (*Angophora floribunda*).

Copyright: Hornsby Shire Council/ private

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007

Image Path:

Image File: P4110406.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fraser Road, Normanhurst – Road reserve

Address: Fraser Road, Normanhurst – Road Reserve

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant native trees in road reserve (public verge), school grounds and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This distinctive group of native trees are components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The BGHF community has a highly restricted geographical distribution and is typically associated with soils derived from Wianamatta Shale. Clearing for agriculture and more recently, urban development, has reduced the size of this community to less than 5% of its original extent (Tozer 2003).

Fraser Road retains a relatively diverse mix of canopy and sub-canopy species including the co-dominants – Grey Ironbark (*Eucalyptus paniculata*), Sydney Blue Gum (*E. saligna*) and Rough-barked Apple (*Angophora floribunda*). This mix of BGHF canopy species is now rare in the local area.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fraser Road, Normanhurst – Road reserve

This small, but more or less contiguous group, is considered to be significant in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The group creates a strong bushland character in this local streetscape with canopies almost interlocking over the roadway. It is also part of a much larger, albeit highly fragmented community (BGHF) within the local shale-capped ridges (refer to listings for Milson Parade, Harris Road, Edwards Road and Russell Avenue).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees (BGHF community) have been retained/ protected within the public verges, grounds of Normanhurst Boys High School and adjoining private gardens. Native tree species include the following:-

Common Name(s):

Rough-barked Apple
Grey Ironbark
Blackbutt
Sydney Blue Gum

Botanical Name(s):

Angophora floribunda
Eucalyptus paniculata subsp. *paniculata*
Eucalyptus pilularis
Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verges/ roadway, school grounds and adjoining private properties. The root zones are likely to extend to a similar area of influence.

Height: up to 15-25 metres

Canopy Spread: up to 8-25 metres

Trunk Diameter: up to 600mm-800mm @ 1.0 metre above ground level

Estimated Age: av. 30-60 years+/ some old growth specimens up to 100-120 years+

Integrity/ Intactness: Canopy and some sub-canopy/ understorey species are retained within group structure. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies for overhead powerlines. The trees display a varying level of insect damage, some with cavities and dead wood in the crowns.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fraser Road, Normanhurst – Road reserve

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Fraser Road, Normanhurst – Road reserve

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Harris Road, Normanhurst – Road reserve

Image/s:



Caption: View of Harris Road [southern end] near intersection with Milson Parade – Mixed group of remnant native trees/ Blue Gum High Forest (BGHF) regrowth along road verge and adjoining private properties.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110429.jpg

Thumb Nail Path:

Thumb Nail File: additional P4110430.jpg – remnant Blue Gum High Forest (BGHF)/ Blackbutt Gully Forest intergrade along northern end of Harris Road near Normanhurst Park.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Harris Road, Normanhurst – Road reserve

Address: Harris Road, Normanhurst – Road Reserve

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation communities – remnant tree group/ Blue Gum High Forest (BGHF) [dominant] grading to Blackbutt Gully Forest.

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: Harris Road follows a shale-capped (Wianamatta Shale) ridgeline. The highly fragmented groups of native trees found along the road's public verges and adjoining private gardens are mainly remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The BGHF community has a highly restricted geographical distribution and past clearing for agriculture and urban development has reduced its size to less than 5% of its former range (Tozer 2003). Harris Road conserves a relatively diverse mix of BGHF canopy and sub-canopy species, particularly within the southern portion of the road reserve near Milson Parade. Most of these trees are of a similar age structure (40-60 years+) dominated by Rough-

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Harris Road, Normanhurst – Road reserve

barked Apple (*Angophora floribunda*) and Grey Ironbark (*Eucalyptus paniculata*). This mix of BGHF canopy species is now rare in the local area. The trees retain a distinctive bushland quality to this suburban streetscape.

The steep slopes of the northern cul-de-sac (adjacent to Normanhurst Park) support a Blackbutt Gully Forest (Smith & Smith 2007), previously described as Sydney Sandstone Gully Forest (Map Unit 10agii) (Benson & Howell 1994). The group is dominated by Blackbutt (*Eucalyptus pilularis*), Smooth-barked Apple (*Angophora costata*) and Turpentine (*Syncarpia glomulifera*). Although common in the Hornsby Shire, this community is uncommon and poorly conserved outside the Shire (Smith & Smith 2007 and HSBCS 2006).

Together these remnant tree groups are considered to be significant in terms of their natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: Scattered remnant stands of native trees occur between the southern end of Harris Road (near the junction with Milson Parade) and the cul-de-sac adjacent to Normanhurst Park (northern end). The native trees species include the following:-

	Common Name(s):	Botanical Name(s):
Blue Gum High Forest:	Smooth-barked Apple	<i>Angophora costata</i>
	Rough-barked Apple	<i>Angophora floribunda</i>
	Grey Ironbark	<i>Eucalyptus paniculata</i> subsp. <i>paniculata</i>
	Blackbutt	<i>Eucalyptus pilularis</i>
	Red Mahogany	<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i>
	Sydney Blue Gum	<i>Eucalyptus saligna</i>
Blackbutt Gully Forest:	Smooth-barked Apple	<i>Angophora costata</i>
	Red Bloodwood	<i>Corymbia gummifera</i>
	Blackbutt	<i>Eucalyptus pilularis</i>
	Red Mahogany	<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i>
	Turpentine	<i>Syncarpia glomulifera</i>

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verges/ roadway and adjoining private properties. The root zones are likely to extend to a similar area of influence.

Height: up to 15-25 metres

Canopy Spread: up to 8-25 metres

Trunk Diameter: up to 500mm-700mm @ 1.0 metre above ground level

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Harris Road, Normanhurst – Road reserve

Estimated Age: av. 30-60 years+

Integrity/ Intactness: Canopy and some sub-canopy/ understorey species are retained within group structure. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. The trees display a varying level of insect damage, some with cavities and dead wood in the crowns.

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Harris Road, Normanhurst – Road reserve

Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Malsbury Road, Normanhurst – Road reserve

Image/s:



Caption: View looking north along Malsbury Road (near Eaton Avenue) – Blue Gum High Forest (BGHF) community dominated by mature Sydney Blue Gums (*Eucalyptus saligna*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110433.jpg

Thumb Nail Path:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Malsbury Road, Normanhurst – Road reserve

Thumb Nail File: additional P4110434.jpg – Malsbury Road [mid-section] Blue Gum High Forest community with a diverse native understorey; and P4110435.jpg – Malsbury Road looking south at Waitara Creek (Blue Gum High Forest).

Address: Malsbury Road, Normanhurst – Road Reserve and railway land [between Eaton Avenue and Clarke Road]

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Street Trees/ Roadside Trees

Area/ Group/ Complex: Group of remnant native trees/ Blue Gum High Forest community in road reserve (public verge), railway easement and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category:

Owner: Hornsby Shire Council/ State Rail/ private

Current Use: public verge, railway corridor and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: The road reserve, railway easement and gardens of adjoining private properties conserve a highly significant corridor of Blue Gum High Forest (BGHF). This community has a highly restricted geographic distribution and is typically associated with soils derived from Wianamatta Shale (Tozer 2003). The community is typically defined by a mixed age structure and diverse floristic composition. Blue Gum High Forest has been highly fragmented and modified by urban development, particularly small-scale clearing and alterations associated with residential subdivision, roads and service

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland
Location: Malsbury Road, Normanhurst – Road reserve

easement upgrades. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*.

This group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. Although Sydney Blue Gums (*Eucalyptus saligna*) dominate much of the canopy in Malsbury Road, the group displays an exceptionally diverse range of canopy species, especially in the mid-section (eastern road reserve/ rail corridor). Some old growth specimens are of individual significance. The substantial size and scale of these mature trees create a distinctive sense of place and bushland aesthetic to this busy roadway. The tall, over-arching canopies form a dramatic tunnel effect along sections of the roadway.

Notably, the remnant community spans the adjoining railway lands, road reserve (public verges), gardens of adjoining private properties and links with natural drainage easements/ creek corridors (eg. Waitara Creek). The group is contiguous with the BGHF group identified in the Milson Parade listing. Together these listings are part of a larger corridor of Blue Gum High Forest extending along the major road/ rail network, albeit highly fragmented and modified (refer to other listings).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: The road reserve (public verge), rail easement and adjoining private gardens all retain remnant components of the Blue Gum High Forest community including the following canopy species:-

Common Name(s):

Smooth-barked Apple
Rough-barked Apple
White Mahogany
White Stringybark
Grey Ironbark
Sydney Peppermint
Red Mahogany
Sydney Blue Gum

Botanical Name(s):

Angophora costata
Angophora floribunda
Eucalyptus acmenoides
Eucalyptus globoidea
Eucalyptus paniculata subsp. *paniculata*
Eucalyptus piperita
Eucalyptus resinifera subsp. *resinifera*
Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland
Location: Malsbury Road, Normanhurst – Road reserve

Extent of Influence: Canopies extend over public verge, roadway, rail corridor and adjoining private properties. The root zones are likely to extend to a similar area of influence.

Height: av. 18-22 metres; up to 25-30 metres

Canopy Spread: up to 10-25 metres

Trunk Diameter: av. 200mm-500mm (up to 1300mm) @ 1.0 metre above ground level

Estimated Age: av. 40-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: This BGHF community has been affected by varying levels of fragmentation, soil disturbance, nutrients, rubbish dumping and weed invasion (ie. exotic weeds impact all of this group, particularly in the gullies/ drainage lines). Some sections have been invaded by Swamp Oak (*Casuarina glauca*).

Notably, the BGHF group retains a high level of native floristic diversity with the mid-section (ie. eastern road reserve and parts of the rail easement) containing native sub-canopy and understorey/ ground stratum components including *Allocasuarina torulosa*, *Exocarpus cupressiformis*, *Polyscias sambucifolia*, *Pittosporum undulatum*, *Platylobium formosum* and *Acacia*, *Ozothamnus*, *Clematis*, *Calochlaena*, *Dianella*, *Pteridium*, *Imperata*, *Themeda* and *Lomandra* spp.). This remnant community provides opportunities for improved bio-linkages, connectivity and enhanced habitat values. Although some areas are under bush regeneration, natural recruitment is generally restricted by current management practices [eg. regular mowing/ pruning, tree removals and general garden maintenance]. The narrow linear configuration of the corridor (reservation) further exposes it to a range of ongoing edge conditions and impacts. The group is vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies except long the upper northern end (near Clarke Road intersection). These remnant BGHF trees have been heavily compromised by lopping for overhead power lines. Overall, the trees in this group display a varying level of insect damage, some with basal cavities/ hollows, dead wood in the crowns and epicormic growth (see above for bushland condition).

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF **NATIONAL AND STATE SIGNIFICANCE**.

Investigate opportunities for enhanced natural recruitment/ regeneration, including an appropriately funded bush regeneration strategy along the

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Malsbury Road, Normanhurst – Road reserve

corridor (road reserve/ rail easement). Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and management recommendations for canopy trees located adjacent to the roadway and the rail corridor, a qualified arborist should be consulted.

Further Comments: Blue Gum High Forest (BGHF) scheduled under EPBC & TSC Acts
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Milson Parade, Normanhurst – Road reserve [eastern side]

Image/s:



Caption: View looking north along Milson Parade – Blue Gum High Forest (BGHF) community dominated by mature Sydney Blue Gums (*Eucalyptus saligna*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110432.jpg

Thumb Nail Path:

Thumb Nail File: additional P4110431.jpg – view looking south along Milson Parade – Blue Gum High Forest (BGHF) community including mixed native understorey.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Milson Parade, Normanhurst – Road reserve [eastern side]

Address: Milson Parade, Normanhurst – Road reserve and railway land [eastern side between Twickenham Close and Hammond Avenue].

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Street Trees/ Roadside Trees

Area/ Group/ Complex: Blue Gum High Forest community in road reserve (public verge) and railway easement as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – Blue Gum High Forest (BGHF) community

Category:

Owner: Hornsby Shire Council/ State Rail

Current Use: public verge and railway corridor

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: The road reserve (eastern side) and railway easement conserve a highly significant corridor of Blue Gum High Forest (BGHF). Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. This community has a highly restricted geographical distribution and is typically associated with soils derived from Wianamatta Shale. Past clearing for agriculture and more recently, urban development, has reduced the size of this community to less than 5% of its original extent (Tozer 2003).

This group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. Sydney Blue

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Milson Parade, Normanhurst – Road reserve [eastern side]

Gum (*Eucalyptus saligna*) and Rough-barked Apple (*Angophora floribunda*) dominate the mixed canopy and sub-canopy levels. Notably, this group retains a native understorey and ground stratum (eg. *Acacia*, *Ozothamnus*, *Polyscias*, *Pittosporum*, *Platylobium*, *Pteridium*, *Calochlaena*, *Imperata* and *Lomandra* spp.). The dramatic size and scale of the mature trees and mixed understorey create a distinctive sense of place and bushland aesthetic to this busy roadway and rail corridor. Furthermore, this group is contiguous with the BGHF group identified in the Malsbury Road listing. Together these listings are part of a larger corridor of Blue Gum High Forest extending along the major road/ rail network, albeit highly fragmented and modified (see listings).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: The eastern side of the road reserve (public verge) and rail easement retain a remnant Blue Gum High Forest community (BGHF) including the following tree species:-

Common Name(s):

Rough-barked Apple

White Stringybark

Grey Ironbark

Sydney Blue Gum

Botanical Name(s):

Angophora floribunda

Eucalyptus globoidea

Eucalyptus paniculata subsp. *paniculata*

Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verge, roadway and rail corridor. The root zones are likely to extend to a similar area of influence.

Height: up to 18-30 metres

Canopy Spread: up to 10-25 metres

Trunk Diameter: av. 200mm-500mm (up to 1000mm) @ 1.0 metre above ground level

Estimated Age: av. 30-60 years+

Integrity/ Intactness: This BGHF community has been affected by varying levels of fragmentation, soil disturbance, rubbish dumping and exotic weed invasion. The narrow linear configuration of the road/ rail corridor further exposes it to a range of ongoing edge conditions and impacts. Although retaining a native canopy, sub-canopy and understorey components, exotic weeds are a major part of the understorey. The group is vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed. This remnant community provides opportunities for improved bio-linkages, connectivity, genetic exchange, regeneration and enhanced habitat values.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Milson Parade, Normanhurst – Road reserve [eastern side]

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. The trees display a varying level of insect damage, some with extensive basal cavities/ hollows, dead wood in the crowns and epicormic growth (see above for bushland condition).

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF **NATIONAL AND STATE SIGNIFICANCE**.

Investigate opportunities for enhanced natural recruitment/ regeneration, including an appropriately funded bush regeneration strategy along the corridor (road reserve/ rail easement). Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and management recommendations for canopy trees located adjacent to the roadway and the rail corridor, a qualified arborist should be consulted.

Further Comments: Blue Gum High Forest (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Milson Parade, Normanhurst – Road reserve [eastern side]

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Nanowie Avenue, Normanhurst – Road reserve [incl. lower end of Hinemoa Avenue]

Image/s:



Caption: View of Nanowie Avenue looking west from cul-de-sac (adjacent to public reserve) – transitional Blue Gum High Forest/ Blackbutt Gully Forest.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110407.jpg

Thumb Nail Path:

Thumb Nail File: additional P4110408.jpg – view of lower southern end of Hinemoa Avenue and junction with Nanowie Avenue (transitional Blue Gum High Forest/ Blackbutt Gully Forest).

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Nanowie Avenue, Normanhurst – Road reserve [incl. lower end of Hinemoa Avenue]

Address: Nanowie Avenue, Normanhurst – Road Reserve [including lower end of Hinemoa Avenue]

Suburb/ Nearest Town: Normanhurst NSW 2076

Other/ Former Names: Street Trees/ Roadside Trees

Area/ Group/ Complex: Group of native trees and bushland in road reserve (public verge), adjoining public reserve and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation communities – remnant tree group/ Blue Gum High Forest (BGHF) and Blackbutt Gully Forest.

Category: Parks & Reserves – bushland reserves
Trees – street trees

Owner: Hornsby Shire Council/ private

Current Use: public reserve/ verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This group of native trees and bushland along the road reserve, within private properties and public reserve adjoining Coups Creek includes a transitional community of Blue Gum High Forest (BGHF) and Blackbutt Gully Forest (Smith & Smith 2007). Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. Blackbutt Gully Forest is uncommon and poorly conserved outside the Hornsby Shire (Smith & Smith 2007 and HSBCS 2006). The group is considered to be significant in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The cumulative impacts of urban development

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Nanowie Avenue, Normanhurst – Road reserve [incl. lower end of Hinemoa Avenue]

continue to reduce the ecological function of these communities. The tall canopy trees on either side of this cul-de-sac create a distinctive aesthetic quality and extend the bushland character into adjoining private gardens. Notably, a small group of remnant native trees occurs within the lower portion of Hinemoa Avenue near the junction with Nanowie Avenue.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: The remnant native trees and bushland have been retained/ protected within the public verges, adjoining reserve and private gardens. The following native tree species are present:-

Common Name(s):

Smooth-barked Apple
Blackbutt
Red Mahogany
Sydney Blue Gum
Turpentine

Botanical Name(s):

Angophora costata
Eucalyptus pilularis
Eucalyptus resinifera subsp. *resinifera*
Eucalyptus saligna
Syncarpia glomulifera

Origin: natural occurrence (see above for details)

Extent of Influence: Canopies extend over public verges/ roadway, adjoining private properties and public reserve. The root zones extend to a similar area of influence.

Height: av. 22-25 metres; up to 30 metres

Canopy Spread: up to 12-25 metres

Trunk Diameter: varies/ up to 600mm-800mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: The group retains a more or less contiguous canopy. The adjoining bushland reserve has a medium to high level of structural and floristic integrity with a diverse native understorey and ground stratum (including *Elaeocarpus*, *Pittosporum*, *Acacia*, *Calochlaena*, *Pteridium* and *Lomandra* spp.). A volunteer Bushcare program is addressing current weed issues. The bushland is subject to a range of ongoing environmental impacts. Only canopy trees are retained along the northern verge and private gardens (ie. no sub-canopy or understorey species are present). Natural recruitment is restricted by current management practices (eg. regular mowing/ pruning, tree removals and garden maintenance). This remnant group is increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Nanowie Avenue, Normanhurst – Road reserve [incl. lower end of Hinemoa Avenue]

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies [power lines/ canopy alignment]. Some trees display a varying level of insect damage with hollows/ basal cavities and dead wood in the crowns.

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

HSLEP4 – REVIEW recommends inclusion of the lower portion of Hinemoa Avenue in this heritage listing.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation (adjoining/ along Hinemoa Avenue). Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire 2007
Native Vegetation of the Cumberland Plain DE&CC (NSW) 2002
Scientific Committee – final determinations, DE&CC (NSW) 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Roadside trees and bushland

Location: Nanowie Avenue, Normanhurst – Road reserve [incl. lower end of Hinemoa Avenue]

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 23.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Beecroft Road (opposite Observatory Park), Pennant Hills – Road reserve

RECOMMENDATION: REMOVE FROM HERITAGE LISTING

Image/s:



Caption: View of Silky Oak (*Grevillea robusta*) row plantation in Beecroft Road (opposite Observatory Park).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 16.07.2007

Image Path:

Image File: P7160942.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Beecroft Road (opposite Observatory Park), Pennant Hills – Road reserve

Address: Beecroft Road [opposite Observatory Park], Pennant Hills – Road Reserve

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: 'Blackwood House Garden'

Area/ Group/ Complex: Row plantation (cultural planting) on public verge as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – native planting

Category: Trees – street trees [row plantation]

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: NOT SIGNIFICANT (HSLEP-4 REVIEW LandArc 2007)

This single species non-contiguous row plantation of Silky Oak (*Grevillea robusta*) is located in the eastern verge immediately south of Pennant Hills Road intersection (opposite Observatory Park). The group, comprising fourteen (14No.) trees, was possibly planted c.1960s (late Post War period). There are no specimens of individual significance. Many trees are in poor condition and overall decline in this road-side environment. These mature trees have only limited visual impact in the streetscape. The integrity of the plantation has been further compromised by additional infill planting of generic native species. This ornamental rainforest species has been in cultivation since the mid- to late nineteenth century and is a common component of parks and private gardens in the Hornsby Shire.

Historical Notes or

Provenance: In 1992, the Silky Oak group included 17No. trees (Perumal Murphy Wu Pty Ltd, 1993).

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Beecroft Road (opposite Observatory Park), Pennant Hills – Road reserve

Physical Description: The native row plantation is located in the narrow eastern grass verge of Beecroft Road immediately south of Pennant Hills Road intersection (opposite Observatory Park). Tree species include the following:-

Common Name(s):
Silky Oak

Botanical Name(s):
Grevillea robusta [14 No.]

Origin: Ornamental/ cultivated (NSW north coast to SE Qld).

Extent of Influence: Canopies extend over public verge and partially over adjoining private properties and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: 10-20 metres; av. 16-18 metres

Canopy Spread: 5-8 metres

Trunk Diameter: 150mm-700mm; av. 400mm-600mm @ 1.0 metre above ground level

Estimated Age: 40-50 years+

Integrity/ Intactness:

Condition/ Health: The Silky Oaks are in generally poor condition with most displaying a high level of crown dead wood, storm damage and die-back exacerbated by the prolonged drought (eg. trees adjacent to Nos. 11A and 17 Beecroft Road are in significant decline). Some trees have large basal cavities (eg. tree adjacent to No. 9 Beecroft Road).

Recommended

Management: REMOVE ITEM (STREET TREES) LISTING IN HSLEP.

For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W., 24.08.1992].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Britannia Street, Pennant Hills – Road reserve

RECOMMENDATION: REMOVE FROM HERITAGE LISTING

Image/s:



Caption: View of mixed row plantation looking south-east near Charlotte Road – Brush Box (*Lophostemon confertus*) and Camphor Laurel (*Cinnamomum camphora*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 17.07.2007

Image Path:

Image File: P7170997.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Britannia Street, Pennant Hills – Road reserve

Address: Britannia Street, Pennant Hills – Road Reserve

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Mixed row plantation (cultural planting) on public verge as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – exotic/ native planting

Category: Trees – street trees [formal row plantation]

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: NOT SIGNIFICANT (HSLEP-4 REVIEW LandArc 2007)

The mixed row plantation of Brush Box (*Lophostemon confertus*) and Camphor Laurels (*Cinnamomum camphora*), located in the upper south-western verge between Charlotte Road and Cladden Close, dates from the mid-Post War period (c.1950s). The group adjoins heritage listed properties ('house') – Nos.8 and 12 Britannia Street and contributes to the overall aesthetic character and amenity value of the streetscape. It is however a relatively small group consisting of only eight (8No.) Brush Box and three (3No.) Camphor Laurels of varying condition, health and integrity. Both of these species have been used extensively in street tree planting schemes throughout Sydney and the Hornsby Shire since the early twentieth century.

Furthermore, Camphor Laurel is listed as a noxious weed in the Hornsby Shire (HSBCS 2006 - Appendix 14). This exotic species is an aggressive coloniser of disturbed bushland within the local area. The significance of

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Britannia Street, Pennant Hills – Road reserve

bushland (contiguous with Lane Cove National Park) within the lower portion of Britannia Street raises issues over the heritage listing and management of this species, particularly in terms of its potential for seed dispersal in this ridge-top context. It would therefore be inconsistent to include these Camphor Laurels for heritage listing.

The lower section of Britannia Street, including the Nursery site and Pennant Hills Park Conservation Reserve (contiguous with Lane Cove National Park) conserves Sydney Turpentine-Ironbark Forest (STIF), a critically endangered ecological community (EPBC Act) and Blackbutt Gully Forest, which is of local significance. Pennant Hills Park has a current regional heritage listing in the HSLEP.

Historical Notes or

Provenance: HSHS (Perumal Murphy Wu Pty Ltd 1993) identified an alternating approach to the mixed plantation and considered this to be 'unusual' however there is no evidence of this formal style (ie. approach appears more random).

Physical Description: The mixed row plantation is located along the upper south-western grassed verge between Charlotte Road and Cladden Close (adjacent to Nos.4-14 Britannia Street) and is comprised of the following species:-

Common Name(s):

Brush Box
Camphor Laurel

Botanical Name(s):

Lophostemon confertus
Cinnamomum camphora

Origin: Ornamental/ cultivated (*L. confertus* – NSW north coast and Qld. and *C. camphora* – China).

Extent of Influence: Canopies extend over public verge and partially over adjoining private properties and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 10-12 metres

Canopy Spread: 8-15 metres

Trunk Diameter: av.400-700mm; up to 1000mm @ 1.0 metre above ground level

Estimated Age: 50-60 years+

Integrity/ Intactness:

Condition/ Health: All trees in the group have a past history of extensive lopping (pollarding) to canopies however this appears to have been discontinued, possibly since the 1980s. Most of the Brush Box appear to be in good condition. The Camphor Laurels are in fair to poor condition with thinning canopies and dead wood in

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Britannia Street, Pennant Hills – Road reserve

the crowns. One Camphor Laurel (adjacent to No.6 Britannia Street) displays extensive crown die-back.

Recommended

Management: REMOVE ITEM (STREET TREES) LISTING IN HSLEP.

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Laurence Street, Pennant Hills – Road reserve

Image/s:



Caption: View of remnant native trees (eastern group) – Blue Gum High Forest (BGHF) community (looking south-east near Vaughan Avenue).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 17.07.2007/ additional: 17.07.2007

Image Path:

Image File: P7171008.jpg

Thumb Nail Path:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Laurence Street, Pennant Hills – Road reserve

Thumb Nail File: additional P7171010.jpg – view of remnant native trees (central group) – Sydney Turpentine-Ironbark Forest (STIF) community (looking south-east near Pennant Hills High School); and P7171009.jpg – view of remnant native tree group near Schofields Parade (intergrade between Sydney Turpentine-Ironbark Forest and Peppermint-Angophora Forest).

Address: Laurence Street, Pennant Hills – Road Reserve

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: Roadside trees/ Road reserve [eastern end]

Area/ Group/ Complex: Groups of remnant native trees in road reserve (public verge), high school grounds, reserve (playground) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree groups/ Blue Gum High Forest (BGHF), Sydney Turpentine-Ironbark Forest (STIF) and Peppermint-Angophora Forest.

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges/ private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: Laurence Street traverses three distinctive ecological communities with remnant groups of trees retained along the road verges and adjoining private gardens. The eastern group (between Bellamy Street and Wearne Avenue – described in the HSHS 1993) conserves remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. This small BGHF group is restricted to the deeper ridge-top Wianamatta Shales. The central group,

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Laurence Street, Pennant Hills – Road reserve

located west of Briddon Close intersection (incl. Briddon Close Playground and Pennant Hills High School grounds) conserves Sydney Turpentine-Ironbark Forest. This group occurs on soils derived from Wianamatta Shales and Hawkesbury Sandstone. The third group of remnant native trees, described as Peppermint-Angophora Forest, occurs on the north-western sandstone ridges and slopes (near Schofield Parade to Redgum Avenue). These groups of remnant native trees are considered to have significance in terms of their natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) and Sydney Turpentine-Ironbark Forest (STIF) are both listed as critically endangered ecological communities in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and endangered/ critically endangered (respectively) in the NSW *Threatened Species Conservation Act 1995*. These communities have been highly fragmented, modified and reduced in size to a very small fraction of their former geographical range. The cumulative impacts of urban development continue to reduce the ecological function of these communities.

The eastern BGHF group retains a mixed floristic composition typical of this community including Sydney Blue Gum (*Eucalyptus saligna*) [dominant], Blackbutt (*Eucalyptus pilularis*) and Smooth-barked Apple (*Angophora costata*). The HSHS Inventory Sheet (Ashton 1993) refers to old growth trees up to 1300mm DBH. Although heritage listed in the HSLEP 1994, old growth trees of this size no longer exist within this group. Nevertheless, the dramatic size and scale of mature trees, including remaining old growth specimens (up to 900mm DBH), define a memorable sense of place. This group has close associations with Lilian Fraser Garden (corner of Bellamy Street) and reinforces a bushland aesthetic to the suburban streetscape. Both this BGHF group and the central STIF group (incl. Briddon Close Playground – 0.24Ha) are identified as priority areas for conservation in the HSBCS 2006.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verges, high school grounds, public reserve/ playground and adjoining private gardens of Laurence Street. The tree groups include the following species:-

Common Name(s):	Botanical Name(s):
BGHF: Smooth-barked Apple	<i>Angophora costata</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Sydney Blue Gum	<i>Eucalyptus saligna</i> [dominant]

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Laurence Street, Pennant Hills – Road reserve

STIF: Smooth-barked Apple	<i>Angophora costata</i>
Red Bloodwood	<i>Corymbia gummifera</i>
White Stringybark	<i>Eucalyptus globoidea</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Red Mahogany	<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i>
Turpentine	<i>Syncarpia glomulifera</i>
P-AF: Smooth-barked Apple	<i>Angophora costata</i>
Red Bloodwood	<i>Corymbia gummifera</i>
Sydney Peppermint	<i>Eucalyptus piperita</i>

Origin: natural occurrence – see above for details

Extent of Influence: Canopies extend over public verges, high school grounds, public reserve/ playground, adjoining private properties and partially over the roadway. The root zones are likely to extend to a similar area of influence.

Height: up to 18-25 metres

Canopy Spread: up to 15-25 metres

Trunk Diameter: varies; up to 700mm-900mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+ / some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only canopy and sub-canopy species are retained within group structure [generally no sub-canopy or understorey species are present except for northern section near Redgum Avenue]. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and garden maintenance]. These remnant groups are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with some pruning to canopies [overhead power lines/ canopy alignment along southern verge]. Some trees display a varying level of insect damage with basal cavities/ hollows and dead wood in the crowns. *Eucalyptus saligna* (opposite entry to Lilian Fraser Garden) has an extensive basal cavity and should be inspected by a qualified arborist.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO REGIONAL SIGNIFICANCE. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

HSLEP4 – REVIEW recommends including the whole of Laurence Street in the heritage listing (as described above) rather than only the eastern BGHF group (between Bellamy Street and Wearne Avenue). Pennant Hills High School (grounds) currently has a local heritage listing in the HSLEP.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Laurence Street, Pennant Hills – Road reserve

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF/ STIF listed in EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 26.03.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Lilla Road, Pennant Hills – Road reserve [lower southern end]

Image/s:



Caption: View looking south (opposite No.18 Lilla Road) showing remnant tree group – Blue Gum High Forest (BGHF) community.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 17.07.2007

Image Path:

Image File: P7170993.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Lilla Road, Pennant Hills – Road reserve [lower southern end]

Address: Lilla Road, Pennant Hills – Road Reserve [lower southern end]

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Group of remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This small group of native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest (BGHF) has a highly restricted geographic distribution and is typically associated with soils derived from Wianamatta Shale (Tozer 2003). The community has been highly fragmented and modified by urban development, particularly small-scale clearing and alterations associated with residential subdivision, roads and service easement upgrades. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The dominant canopy species, including Blackbutt (*Eucalyptus pilularis*) and Sydney Blue Gum (*Eucalyptus saligna*), are typical of the mixed

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Lilla Road, Pennant Hills – Road reserve [lower southern end]

canopy structure of this community. Together these trees define a dramatic sense of place and bushland aesthetic to this lower portion of Lilla Road. While the road verges in the upper portion of Lilla Road retain no remnant BGHF, the rear gardens of private properties, particularly along the eastern side, conserve significant native canopy species. Furthermore, the Lilla Road group is more or less contiguous with a highly significant BGHF group along Wongala Crescent and the railway corridor. This Wongala Crescent group is currently not listed in the HSLEP.

The Hornsby Shire Heritage Study (Perumal Murphy Wu Pty Ltd, 1993) identified the importance of cultural planting in adjoining front gardens (incl. *Schinus areira*, *Grevillea robusta* and *Cupressus*, *Prunus*, *Cedrus* spp.). Planting is mainly restricted to shrubs dating from the 1960s-1970s period. While complimentary and supportive of the neighbourhood amenity they are common garden elements throughout the Sydney metropolitan area and Hornsby Shire. Accordingly, these exotic and generic native trees are not considered to be significant.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verge and adjoining private gardens in the lower southern end of Lilla Road between No.18 Lilla Road and Wongala Crescent intersection. The native tree species include the following:-

Common Name(s):

Rough-barked Apple
Blackbutt
Sydney Blue Gum

Botanical Name(s):

Angophora floribunda
Eucalyptus pilularis
Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verge, adjoining private properties and partially over roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 25 metres

Trunk Diameter: av. 400mm-600mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+

Integrity/ Intactness: Only canopy trees are retained in group structure [ie. no sub-canopy or understorey species are present]. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Lilla Road, Pennant Hills – Road reserve [lower southern end]

general garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and is likely to be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with considerable pruning to canopies [overhead power lines/ canopy alignment over houses]. The trees display a varying level of insect damage, cavities/ hollows and some dead wood in the crowns.

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends removal of the cultivated exotics and generic natives (private gardens) in Lilla Road from this HSLEP listing.

The Wongala Crescent/ railway corridor conserves significant remnants of the Blue Gum High Forest (BGHF) community which are not currently heritage listed. HSLEP4 – REVIEW recommends the addition of Wongala Crescent (including the road reserve and adjoining private gardens) and railway corridor for heritage listing.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Lilla Road, Pennant Hills – Road reserve [lower southern end]

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments (old growth specimen).

References: HSLEP – Inventory Sheet/ YC (inspected 11.03.1997).
Council correspondence Jilka, D., 6/05/2007 and TPO application 7/02/2007.
Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
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Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

References: State Heritage Inventory data base includes this listing in PENNANT HILLS.
The duplicate listing in BEECROFT has been removed.

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 4.05.1993].

Latitude: **Longitude:**

Location Validity:

Map Name: **Spatial Accuracy:**

AMG Zone: **Map Scale:**

Hornsby Heritage Inventory

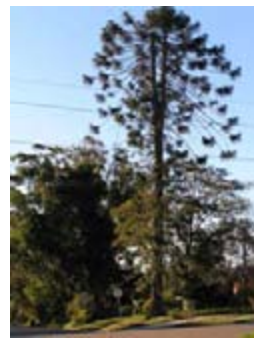
SHI Number: 1780913

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Loftus Road, Pennant Hills – Road reserve [adjacent to 46 Victoria Road]

Image/s:



Caption: View of Bunya Pine (*Araucaria bidwillii*) [right background] and Mexican Cypress (*Cupressus lusitanica*) [left foreground] (opposite 8B Loftus Road).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 17.07.2007/ additional: 17.07.2007

Image Path:

Image File: P7171006.jpg

Hornsby Heritage Inventory

SHI Number: 1780913

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Loftus Road, Pennant Hills – Road reserve [adjacent to 46 Victoria Road]

Thumb Nail Path:

Thumb Nail File: additional P7171005.jpg – view of Mexican Cypress (*Cupressus lusitanica*) [left foreground] and Bunya Pine (*Araucaria bidwillii*) [right background]; and P7171007.jpg – northern view of mixed pines from Loftus Road.

Address: Loftus Road, Pennant Hills – Road Reserve [adjacent to 8B Loftus Road and 46 Victoria Road].

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: Trees – 46 Victoria Road [Lot 2 DP 25436].

Area/ Group/ Complex: Two pines in road reserve (public verge) as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – mixed planting

Category: Specimen trees – road reserve (adjoining private garden)

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This cultural planting of two pines in the public verge, including a native Bunya Pine (*Araucaria bidwillii*) and exotic Mexican Cypress (*Cupressus lusitanica*), are considered to have significance in terms of their historic/ cultural associations, visual, aesthetic, landmark and representative values. These trees, particularly the Bunya Pine, are visually prominent specimens in the streetscape. These examples of mixed specimen planting are believed to be the remnants of a former garden dating from c.1910. Although isolated

Hornsby Heritage Inventory

SHI Number: 1780913

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Loftus Road, Pennant Hills – Road reserve [adjacent to 46 Victoria Road]

from their original context, these pines retain important historic links to the area's development from outlying farms/ orchards to suburban streetscape. The Mexican Cypress, as an historic cultivated specimen, is uncommon in the Sydney area. Bunya Pines have been planted in large private gardens and public planting schemes throughout Sydney since the early to mid-nineteenth century. Older specimen Bunya Pines are now somewhat rare in the Hornsby Shire. Other notable Bunya Pine listings include Rosemead Road/ 'Mount Errington' and 19C Ethel Street, Hornsby (refer to listings).

The Loftus Road street verges and adjoining private gardens conserve significant remnant native trees which are components of the Blue Gum High Forest (BGHF), a critically endangered ecological community (EPBC and TSC Acts). This group is currently not listed in the HSLEP.

Historical Notes or

Provenance: The group of pines is believed to have been planted c.1910 (NSW Heritage Office – SHI data base). The group includes a Mexican Cypress (*Cupressus lusitanica*), previously identified as a Stone Pine (*Pinus pinea*).

Physical Description: The two pines are located within the Loftus Road public verge, adjacent to private properties (Nos. 2B Loftus Road and 46 Victoria Road) near the corner of Victoria Road. The group is comprised of the following species:-

Common Name(s):

Bunya Pine
Mexican Cypress

Botanical Name(s):

Araucaria bidwillii
Cupressus lusitanica

Origin: Ornamental/ cultivated (*A. bidwillii* – south-east Qld; *C. lusitanica* – Mexico/ Central America).

Extent of Influence: Canopies extend over the public verge and partially over the roadway and adjoining private properties. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: *A. bidwillii* - 22 metres; *C. lusitanica* - 14 metres

Canopy Spread: *A. bidwillii* - 7 metres; *C. lusitanica* - 8 metres

Trunk Diameter: *A. bidwillii* - 900mm; *C. lusitanica* - 1000mm @ 1.0 metre above ground level

Estimated Age: 90-100 years+

Integrity/ Intactness: *A. bidwillii* – form and integrity has been compromised by past heavy lopping/ alignment to upper crown for clearance to powerlines. Pine displays a split (double trunk) in the upper canopy possibly as a result of past storm damage. *C. lusitanica* – form and integrity has been seriously compromised by removal of one of two major trunks, reducing overall canopy spread and balance. The remaining trunk leans over the roadway.

Hornsby Heritage Inventory

SHI Number: 1780913

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Loftus Road, Pennant Hills – Road reserve [adjacent to 46 Victoria Road]

Condition/ Health: *A. bidwillii* – fair condition and health with an open thinning crown, loss of vigour, poor apical growth and some dead wood present.
C. lusitanica – appears to be in fair to good condition with a dense crown and some dead wood present.

Recommended Management:

RETAIN LOCAL HERITAGE LISTING IN HSLEP.
For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends the addition of Loftus Road – remnant native tree group/ Blue Gum High Forest (BGHF) community (within the road reserve and adjoining private gardens) for heritage listing.

Further Comments: Early historic/ cultural associations
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g)

References: State Heritage Inventory Data Base Number: 1780913 and HSLEP 1994 identifies this listing as 46 Victoria Road [Lot 2 DP 25436] however both trees are located on the Loftus Road public verge (adjacent to private properties Nos. 8B Loftus Road and 46 Victoria Road).

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993).

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

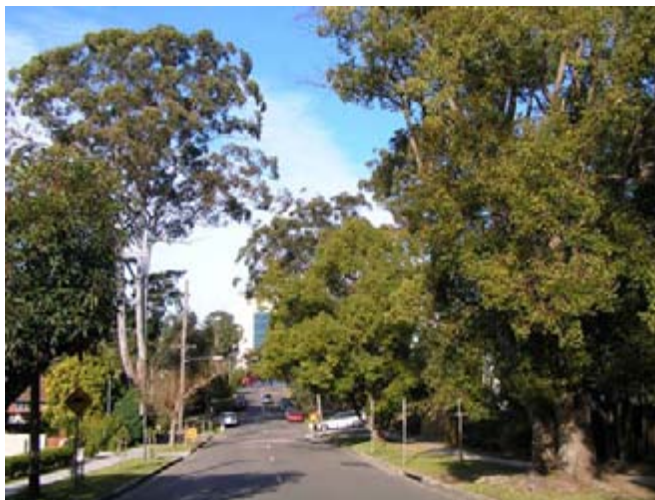
Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Trebor Road, Pennant Hills – Road reserve

**RECOMMENDATION: REMOVE ITEM FROM HERITAGE LISTING/
INCLUDE WITHIN EXPANDED GROUP LISTING**

Image/s:



Caption: View of Trebor Road looking south-east showing mixed group of Camphor Laurel (*Cinnamomum camphora*) [right foreground] and remnant Sydney Blue Gum (*Eucalyptus saligna*) [left background] (photo taken from near Weemala Road intersection).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 17.07.2007

Image Path:

Image File: P7171002.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Trebor Road, Pennant Hills – Road reserve

Address: Trebor Road, Pennant Hills – Road Reserve

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Mixed trees including exotic planting and remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural/ Cultural

Group: Vegetation community – remnant trees/ Blue Gum High Forest (BGHF); and Parks, Gardens and Trees – exotic planting.

Category: Trees – street trees [remnant native trees/ cultural planting]

Owner: Hornsby Shire Council/ private

Current Use: road reserve/ public verge and adjoining private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: NOT SIGNIFICANT (HSLEP-4 REVIEW LandArc 2007)

Trebor Road retains a mix of remnant native trees (now reduced to only four scattered individuals) and a planted overlay of exotics and generic natives from various periods. Two Camphor Laurels (*Cinnamomum camphora*) have been retained in the verge adjacent to St Agatha's Catholic School. The larger specimen may date from the late Inter-War period (c.1930s). Both trees are of poor form and integrity with a history of heavy lopping. Camphor Laurels have been in cultivation (Sydney area) since the early nineteenth century. This exotic species is an aggressive coloniser of disturbed bushland and is listed as a noxious weed in Hornsby Shire (HSBCS 2006 - Appendix 14).

The public verge and adjoining gardens along Trebor Road retain only three remaining Sydney Blue Gums (*Eucalyptus saligna*) and a single Smooth-barked Apple (*Angophora costata*), components of the Blue Gum High Forest

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Trebor Road, Pennant Hills – Road reserve

(BGHF) community. The immature group of Sydney Blue Gums (*E. saligna*) and Rough-barked Apples (*Angophora floribunda*) in the verges between Fisher Avenue and Pennant Hills Road are believed to be of cultivated origin.

Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The very small sample size and highly fragmented nature of these remnant trees however reduces overall significance of the group. On a comparative level, many similarly fragmented BGHF groups are not currently listed. Notably, Fisher Avenue conserves an exceptional old growth specimen *Eucalyptus saligna* (30 metres+ in height, 30 metres canopy spread and 2000mm DBH). This tree is amongst the largest known remnant BGHF trees in the Hornsby Shire. It should form the nucleus for an amended (Fisher Avenue) listing which includes the remnant native trees along Trebor Road.

Historical Notes or Provenance:

Physical Description: The native tree group (BGHF) and cultivated exotic trees have been retained/protected within the public verge and adjoining private gardens. Remnant BGHF tree species include the following:-

Common Name(s):	Botanical Name(s):
Smooth-barked Apple	<i>Angophora costata</i> [1No.]
Sydney Blue Gum	<i>Eucalyptus saligna</i> [3No.]

Origin: Remnant native group – natural occurrence; and Ornamental/ cultivated (*C. camphora* – China).

Extent of Influence: Canopies extend over public verge, adjoining private properties and partially over roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: BGHF - up to 25 metres; *C. camphora* - 16 metres

Canopy Spread: BGHF - up to 25 metres; *C. camphora* - 16 metres

Trunk Diameter: BGHF - 700mm-900mm; and *C. camphora* - 1000mm @ 1.0 metre above ground level;

Estimated Age: BGHF - av. 60-80 years+; *C. camphora* - 70-80 years+

Integrity/ Intactness:

Condition/ Health: The Camphor Laurels are in poor condition. They display thinning crowns with extensive dead wood and a history of heavy lopping. Most of the remnant

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name:	Street trees [Roadside trees]
Location:	Trebor Road, Pennant Hills – Road reserve

trees in the BGHF group appear to be in fair to good condition with some pruning to canopies [overhead power lines/ canopy alignment]. The trees display varying levels of insect damage, cavities/ hollows and some dead wood in the crowns.

Recommended

Management: REMOVE ITEM (STREET TREES) LISTING IN HSLEP.

HSLEP4 – REVIEW recommends a new heritage listing for the old growth specimen Sydney Blue Gum (*Eucalyptus saligna*) in Fisher Avenue AND inclusion of the Trebor Road remnant native trees (BGHF) within this expanded listing.

For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Weemala Road, Pennant Hills – Road reserve

RECOMMENDATION: REMOVE FROM HERITAGE LISTING

Image/s:



Caption: View of mixed avenue – western verge Camphor Laurel (*Cinnamomum camphora*) looking north adjacent to Pennant Hills Public School.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 17.07.2007/ additional: 17.07.2007

Image Path:

Image File: P7171003.jpg

Thumb Nail Path:

Thumb Nail File: additional P7171004.jpg – view of eastern verge Brush Box (*Lophostemon confertus*) looking north near Hilcrest Road.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Weemala Road, Pennant Hills – Road reserve

Address: Weemala Road, Pennant Hills – Road Reserve

Suburb/ Nearest Town: Pennant Hills NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Mixed avenue (cultural planting) on public verge as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – exotic/ native planting

Category: Trees – street trees [formal mixed avenue plantation]

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: NOT SIGNIFICANT (HSLEP-4 REVIEW LandArc 2007)

The mixed avenue along Weemala Road has a distinctive layout and composition with a row of Brush Box (*Lophostemon confertus*) along the eastern verge and row of Camphor Laurels (*Cinnamomum camphora*) along the western verge adjacent to Pennant Hills Public School. The plantation is believed to date from the Post War period (c.1950s-1960s). Although the group contributes to the overall aesthetic character and amenity value of the streetscape it is not considered to have local significance. Many of the Camphor Laurels are in poor condition, form and integrity. All are relatively small, stunted specimens. The Brush Box have a history of heavy pruning under low overhead powerlines and there has been little opportunity for crown development. Both of these species have been used extensively in street tree planting schemes throughout Sydney and the Hornsby Shire since the early twentieth century. In many of Hornsby's local streets the two species have been planted together, usually in a more random mixed layout.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Weemala Road, Pennant Hills – Road reserve

Camphor Laurel is listed as a noxious weed (Class 4) in the Hornsby Shire (HSBCS 2006 - Appendix 14). This exotic species is an aggressive coloniser of disturbed bushland. The status of Camphor Laurel as a weed species raises issues over heritage listing and management, particularly in terms of this group's potential for seed dispersal in this ridge-top context.

Notably, the road reserve and adjoining private gardens of Weemala Road conserve scattered remnant trees of the Blue Gum High Forest (BGHF) which are not currently heritage listed. These trees are components of a critically endangered ecological community (EPBC and TSC Acts).

Historical Notes or

Provenance: HSHS (Perumal Murphy Wu Pty Ltd 1993) suggested c.1930s as an earlier planting period for the Camphor Laurels (separate to the Brush Box c.1950s). This HSLEP4 – Review has not been able to confirm these dates however on the basis of other examples (ie. species, size and development) within the Hornsby Shire it is believed that planting occurred in the late 1950s-1960s.

Physical Description: The avenue plantation is located along the grass verges between Hillcrest Road (south) and Ramsay Road (north) adjacent to Pennant Hills Public School and is comprised of the following species:-

Common Name(s):

Brush Box
Camphor Laurel

Botanical Name(s):

Lophostemon confertus
Cinnamomum camphora

Origin: Ornamental/ cultivated (*L. confertus* – NSW north coast and Qld. and *C. camphora* – China).

Extent of Influence: Canopies extend over public verge and partially over adjoining private properties, school grounds and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: *L. confertus* - 6-9 metres; *C. camphora* - 7-12 metres

Canopy Spread: *L. confertus* - 5-7 metres; *C. camphora* - 5-10 metres

Trunk Diameter: av.300-450mm; up to 700mm @ 1.0 metre above ground level

Estimated Age: 40-50 years+

Integrity/ Intactness:

Condition/ Health: Brush Box are in generally good condition with a history of heavy lopping/ alignment (pollarding) under overhead powerlines. The Camphor Laurels are in poor condition with thinning, open canopies (some heavily pruned) and extensive dead wood in the crowns possibly exacerbated by the recent drought. Some Camphor Laurels display large basal cavities/ hollows.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Weemala Road, Pennant Hills – Road reserve

Recommended

Management: REMOVE ITEM (STREET TREES) LISTING IN HSLEP.

For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends heritage listing of Blue Gum High Forest remnant trees in Weemala Road, possibly within an expanded group listing (of local scattered remnant trees) including Trebor Road and Fisher Avenue.

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Beresford Road, Thornleigh – Road reserve

RECOMMENDATION: REMOVE FROM HERITAGE LISTING

Image/s:



Caption: View of Beresford Road – Group of mature Narrow-leaved Scribbly Gums (*Eucalyptus racemosa*) (Scribbly Gum Open-Woodland/ Heath).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007

Image Path:

Image File: P4110428.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Beresford Road, Thornleigh – Road reserve

Address: Beresford Road, Thornleigh – Road Reserve

Suburb/ Nearest Town: Thornleigh NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Scattered remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation communities – remnant tree group (Scribbly Gum Open-Woodland/ Heath).

Category: Trees – street trees [informal groupings]

Owner: Hornsby Shire Council/ private

Current Use: road reserve/ public verges and adjoining private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: NOT SIGNIFICANT (HSLEP-4 REVIEW LandArc 2007)

The wide grassed verges and adjoining gardens retain remnant canopy trees which are typical of the Scribbly Gum Open-Woodland/ Heath (Smith & Smith 2007) previously described as Sydney Sandstone Ridgetop Woodland (Map Unit 10ari) (Benson & Howell 1994). This is a common community in Hornsby Shire and well represented in local conservation reserves (Smith & Smith 2007). The Beresford Road group has been reduced to a small number of scattered individuals located along the public verges and adjoining private gardens. This remnant group is dominated by Narrow-leaved Scribbly Gum (*Eucalyptus racemosa*). Since the 1970s-1980s, Beresford Road has been progressively overlaid with a range of generic native cultivated species, especially Wallangarra White Gum (*Eucalyptus scoparia*). This species is similar in appearance to the local Scribbly Gums. Although of local neighbourhood amenity value these introduced natives compromise the

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Beresford Road, Thornleigh – Road reserve

integrity of local remnant stands and are not considered to have local significance as identified in the HSHS (Perumal Murphy Wu Pty Ltd, 1993).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verges and adjoining private gardens.

Common Name(s):

Smooth-barked Apple

Narrow-leaved Scribbly Gum

Turpentine

Botanical Name(s):

Angophora costata

Eucalyptus racemosa

Syncarpia glomulifera

Origin: natural occurrence – remnant trees (Scribbly Gum Open-Woodland/ Heath)

Extent of Influence: Canopies extend over public verges, adjoining private properties and partially over roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 9-10 metres

Canopy Spread: up to 12-15 metres

Trunk Diameter: up to 500mm-00mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness:

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. Trees display a varying level of insect damage, cavities/ hollows and dead branches in canopies.

Recommended

Management: REMOVE ITEM (STREET TREES) LISTING IN HSLEP.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 20.4.1993].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Giblett Avenue, Thornleigh

Image/s:



Caption: View of eastern group (STIF) between Parkland Place and Nicholson Avenue showing dominant Blackbutt (*Eucalyptus pilularis*) and Turpentine (*Syncarpia glomulifera*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 18.07.2007/ additional: 11.04.2007

Image Path:

Image File: P7181018.jpg

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees
Location: Giblett Avenue, Thornleigh

Thumb Nail Path:

Thumb Nail File: additional P4110421.jpg – Sydney Turpentine-Ironbark Forest community (STIF) in Giblett Avenue (between Thornleigh West Public School and Oakleigh Park); P4110420.jpg – Sydney Turpentine-Ironbark Forest community (STIF) in road reserve adjoining Thornleigh West Public School (looking east); and P4110422.jpg – remnant group (STIF) on southern verge adjoining Oakleigh Park (looking east from car parking area).

Address: Giblett Avenue, Thornleigh – Road reserve

Suburb/ Nearest Town: Thornleigh NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Group of remnant native trees in road reserve (public verge), adjoining private gardens, primary school and parkland as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Sydney Turpentine-Ironbark Forest (STIF) community.

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verge/ unmade road reserve, primary school and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This dense stand of native trees, of mixed age and floristic structure, are remnant components (canopy trees) of the Sydney Turpentine-Ironbark Forest (STIF) community. Sydney Turpentine-Ironbark Forest (STIF) is scheduled as a critically endangered ecological community under the

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees
Location: Giblett Avenue, Thornleigh

Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and listed as an endangered ecological community in the NSW *Threatened Species Conservation Act 1995*.

The major group occurs within and adjacent to Thornleigh West Public School, particularly the unmade road section (western end) of Giblett Avenue. The fragmented eastern group (near Nicholson Avenue) contains old growth specimens of individual significance. The diverse range of tree species is typical of the mixed canopy structure of this community. The group's density of trunks, mixed canopy cover and scale define a distinctive sense of place and bushland aesthetic to this suburban streetscape.

This community has been highly fragmented and modified by clearing and urban development and it is estimated that only 0.5% of the original area of STIF still exists as scattered remnant groups (NSW Scientific Committee 2004). This group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the street verge/ unmade road reserve (including car parking area), adjoining school grounds (Thornleigh West Public School), parkland/ oval (Oakleigh Park) and adjoining private gardens between Quarter Sessions Road and Nicholson Avenue. The native canopy species include the following:-

Common Name(s):	Botanical Name(s):
Smooth-barked Apple	<i>Angophora costata</i>
Red Bloodwood	<i>Corymbia gummifera</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Red Mahogany	<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i> [dom.]
Turpentine	<i>Syncarpia glomulifera</i> [dom.]

Origin: natural occurrence (STIF remnant)

Extent of Influence: Canopies extend over street verge/ unmade road reserve, car parking area, school grounds, parkland and private gardens. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: av. 12-18 metres; up to 22 metres

Canopy Spread: up to 6-12 metres

Trunk Diameter: av. 150mm-450mm [multi-stemmed]; up to 900mm @ 1.0 metre above ground level

Estimated Age: av. 30-60 years+/- some old growth specimens up to 100-120 years+

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees
Location: Giblett Avenue, Thornleigh

Integrity/ Intactness: The dense, multi-stemmed regrowth is a response to past clearing. Generally, only canopy and sub-canopy species have been retained within much of the group structure, however some remnant native understorey/ ground stratum exists in the unmade western section of road (including *Allocasuarina*, *Acacia*, *Pittosporum*, *Imperata* spp.). For most of the group, natural recruitment is restricted by current management practices (eg. regular mowing/ pruning, imported mulches and tree removals). This remnant group is increasingly vulnerable to further fragmentation and attrition. Current management issues need to be properly addressed to ensure long term ecological resilience, durability and recovery.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies [overhead power lines/ canopy alignment]. Trees display a varying level of insect damage, cavities/ hollows and some dead wood in the crowns.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity to adjoining parkland. Ensure a high level of public security/ safety and passive surveillance. Identify potential seed sources for propagation and future restoration programs within appropriate areas. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (STIF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Giblett Avenue, Thornleigh

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 22-56 Hillmont Road, Thornleigh

Image/s:



Caption: View of remnant native tree group (Blackbutt Gully Forest) looking north-east from rear garden No.28 Hillmont Road.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 18.07.2007/ additional: 18.07.2007

Image Path:

Image File: P7181022.jpg

Thumb Nail Path:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 22-56 Hillmont Road, Thornleigh

Thumb Nail File: additional P7181023.jpg – view looking south-west from rear garden No.28 Hillmont Road showing remnant tree group (Blackbutt Gully Forest); and additional P7181024.jpg – view of rear garden No.26 Hillmont Road showing remnant native tree group (current sub-division/ development site).

Address: Hillmont Road, Thornleigh – private rear gardens [Nos.22-56 Hillmont Road]

Suburb/ Nearest Town: Thornleigh NSW 2120

Other/ Former Names: Gardens/ Trees – Nos. 40-56 Hillmont Road [Lots 25-26 and 30-34 DP 28362, Lots A and B DP403196]

Area/ Group/ Complex: Group of remnant native trees in private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary:

Item Type: Landscape – Natural

Group: Vegetation communities – remnant tree group/ Blackbutt Gully Forest

Category: Trees – private gardens

Owner: private

Current Use: private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: The rear gardens of private properties between Nos. 22 and 56 Hillmont Road support a remnant tree group which are components (canopy trees) of the Blackbutt Gully Forest (Smith & Smith 2007), previously described as Sydney Sandstone Gully Forest (Map Unit 10agii) (Benson & Howell 1994). The group is dominated by Turpentine (*Syncarpia glomulifera*), Blackbutt (*Eucalyptus pilularis*) and Smooth-barked Apple (*Angophora costata*). These trees are part of a more or less contiguous corridor linking from Rannoch Place to The Comenarra Parkway (between Hillmont Avenue and Butterfield Street).

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 22-56 Hillmont Road, Thornleigh

Although common in the Hornsby Shire, this community is uncommon and poorly conserved outside the Shire (Smith & Smith 2007 and HSBCS 2006). The group is considered to have local significance in terms of its natural, representative, rarity, ecological/ biodiversity, visual and aesthetic values.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated]. The Hornsby Shire Heritage Study (Perumal Murphy Wu Pty Ltd, 1993) identified the significance of remnant native trees within the rear gardens of Nos.40-56 Hillmont Road [Lots 25-26 and 30-34 DP 28362, Lots A and B DP403196]. A written request to Council, on behalf of the local community, identified the need to include the entire stand of remnant native trees in response to subdivision/ development and loss of trees (Dadd, P., Council corro DA/1490 22/11/2005). Site inspection/ meeting was held with owner to discuss issues 18/08/2007. A further item was raised in correspondence regarding heritage listing of an English Oak (*Quercus robur*) in 253 Pennant Hills Road (cnr. Hillmont Road).

Physical Description: These remnant native trees (Blackbutt Gully Forest) have been retained/ protected within the rear private gardens of Nos. 22-56 Hillmont Road. The native species include the following:-

Common Name(s):

Smooth-barked Apple
Blackbutt
Red Mahogany
Turpentine

Botanical Name(s):

Angophora costata
Eucalyptus pilularis
Eucalyptus resinifera subsp. *resinifera*
Syncarpia glomulifera

Origin: natural occurrence (Blackbutt Gully Forest)

Extent of Influence: Canopies extend along rear gardens of private properties as scheduled. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: av. 16-25 metres; up to 30 metres

Canopy Spread: up to 25-30 metres

Trunk Diameter: av. 300mm-600mm; up to 1000mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only canopy and sub-canopy tree species are retained in the group structure [ie. no understorey species are present]. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, general garden maintenance and tree removals]. This remnant group is increasingly vulnerable to further fragmentation and attrition (eg. sub-division/ current development of No.26 Hillmont Road) and may be lost altogether over time unless these management issues are properly addressed.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 22-56 Hillmont Road, Thornleigh

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. Trees display a varying level of insect damage, cavities/ hollows and some dead wood in the crowns. Current site development on No.26 Hillmont Road is retaining a number of remnant trees however extensive ground works/ soil and drainage alterations within the drip-lines and minimal site protection measures (eg. works exclusion zones within drip-lines) are likely to cause further losses and management issues in the future.

Recommended Management: RETAIN// ADD LOCAL HERITAGE LISTING IN HSLEP.

HSLEP4 – REVIEW recommends expanding the listing to include Nos. 22-56 Hillmont Road (rather than only Nos.40-56 Hillmont Road). Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly along public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends separate heritage listing of an English Oak (*Quercus robur*) in 253 Pennant Hills Road (see listing in this review).

Further Comments: Remnant native canopy species (Blackbutt Gully Forest – local significance)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Dadd, P., Council corro DA/1490 22/11/2005 File Ref: D00308459).
Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire 2007
Native Vegetation of the Cumberland Plain DE&CC (NSW) 2002
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 22-56 Hillmont Road, Thornleigh

Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983

Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number: 1780902

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 1A-1D Kentwell Avenue, Thornleigh

RECOMMENDATION: REMOVE FROM HERITAGE LISTING

Image/s:



Caption: View of Brush Box (*Lophostemon confertus*) boundary row plantation in garden of 1A-1D Kentwell Avenue.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 17.07.2007

Image Path:

Image File: P4110419.jpg

Thumb Nail Path:

Thumb Nail File: additional P7171012.jpg – view of Brush Box group from Kentwell Avenue (looking north).

Hornsby Heritage Inventory

SHI Number: 1780902

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 1A-1D Kentwell Avenue, Thornleigh

Address: 1A-1D Kentwell Avenue, Thornleigh [Lots 100 & 101 DP 843558 and Lots 102 & 103 DP 853809].

Suburb/ Nearest Town: Thornleigh NSW 2120

Other/ Former Names: Garden 67 Duffy Avenue

Area/ Group/ Complex: Single species row plantation (cultural planting) along property boundary as scheduled.

Aboriginal Area:

Curtilage/ Boundary: Lots 100 & 101 DP 843558 and Lots 102 & 103 DP 853809.

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – generic native planting

Category: Trees – street trees [row plantation]

Owner: private

Current Use: private garden

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994 and SHI – data base item no. 1780902)

Endorsed Significance: NOT SIGNIFICANT (HSLEP-4 REVIEW LandArc 2007)

The small row plantation of Brush Box (*Lophostemon confertus*) along the front boundary of 1A-1D Kentwell Avenue pre-dates the existing residence and subdivision. The Brush Box group extends to the rear southern boundary. The cultivated group is believed to date from the late 1960s period. Although providing local neighbourhood amenity value and visual screening to recent site development, Brush Box of this age group are very common in the Hornsby Shire and broader metropolitan area. This group is not considered to have local significance.

Historical Notes or

Provenance: The SHI – data base identifies ten (10No.) Brush Box planted c.1950s however a comparative review taking into account species, size and development, suggests a somewhat younger age structure (c.1960s).

Hornsby Heritage Inventory

SHI Number: 1780902

Hornsby Heritage Inventory – Stage 4

Item Name: Trees

Location: 1A-1D Kentwell Avenue, Thornleigh

Physical Description: The row plantation along the front boundary of 1A-1D Kentwell Avenue and southern boundary is comprised of the following species:-

Common Name(s):

Brush Box

Botanical Name(s):

Lophostemon confertus [7No.]

Origin: cultivated native of the NSW north coast and Qld.

Extent of Influence: Canopies extend over this private garden and partially over neighbouring properties and public verge. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 10-12 metres

Canopy Spread: up to 6-8 metres

Trunk Diameter: av.300mm-500mm; up to 700mm @ 1.0 metre above ground level

Estimated Age: 40 years+

Integrity/ Intactness:

Condition/ Health: Most trees appear to be in fair to good condition, typical of this species, age group/ structure. Integrity of the row plantation has been compromised by past heavy pruning (pollarding) and tree removals.

Recommended

Management: REMOVE ITEM (TREES) LISTING IN HSLEP.

For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

References: State Heritage Inventory Data Base Number: 1780902.

Owner has requested removal of one of these trees (located on the corner of Kentwell and Duffy Avenues) due to potential safety issues (ie. tree obstructs sight lines for motorists/ pedestrian safety issues on busy road) [Mallyon, R., Council correspondence 15/05/2007].

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Loch-Maree Avenue, Thornleigh – Road reserve

Image/s:



Caption: View of Loch-Maree Avenue looking south near Trelawney Street intersection (opposite No.33 Loch-Maree Avenue) – remnant native tree group/ Blue Gum High Forest (BGHF) community.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 18.07.2007/ additional: 18.07.2007

Image Path:

Image File: P7181019.jpg

Thumb Nail Path:

Thumb Nail File: additional P7181020.jpg – old growth specimen Sydney Blue Gum (*Eucalyptus saligna*) on public verge adjacent to No.27 Loch-Maree Avenue.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Loch-Maree Avenue, Thornleigh – Road reserve

Address: Loch-Maree Avenue, Thornleigh – Road Reserve

Suburb/ Nearest Town: Thornleigh NSW 2120

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This small group of native trees, dominated by old growth specimens, are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The BGHF community has a highly restricted geographical distribution and is typically associated with local shale-derived soils of the ridge tops. In the past, the community was largely cleared for agriculture and is now threatened by urban development. Less than 5% of the original distribution of BGHF community still exists (Tozer 2003).

Although highly fragmented and reduced to only scattered remnant canopy trees, the group is considered to be significant in terms of its natural,

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Loch-Maree Avenue, Thornleigh – Road reserve

representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The dramatic size and scale of these trees, particularly old growth specimens, creates a memorable sense of place and bushland aesthetic to this suburban streetscape. A number of large specimen trees are conserved in rear gardens (eastern side) near the creek-line. Furthermore, these trees are part of a much larger, albeit highly fragmented (BGHF) community (refer to Calga Avenue and Campbell Avenue and other local listings). Notably, Trelawney Street (linking to Loch-Maree Avenue) conserves a small but impressive group of remnant Blue Gum High Forest, including old growth specimens, which is currently not heritage listed.

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated]. Resident of No.27 Loch-Maree Avenue has requested removal of old growth specimen (*E. saligna*) in verge following recent branch fall (Council corro. date unknown/ pers. comm. 18/07/2007).

Physical Description: These native trees (BGHF community) have been retained/ protected within the western public verge and adjoining private gardens, particularly within and adjacent to Nos.25, 27 and 31 Loch-Maree Avenue. Native tree species include the following:-

Common Name(s):

Rough-barked Apple
Blackbutt
Sydney Blue Gum

Botanical Name(s):

Angophora floribunda
Eucalyptus pilularis
Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verges/ roadway and adjoining private properties. The root zones are likely to extend to a similar area of influence.

Height: up to 25-30 metres+

Canopy Spread: up to 20-28 metres+

Trunk Diameter: av. 500mm-700mm (up to 1600mm) @ 1.0 metre above ground level

Estimated Age: av. 60-80 years+/ an old growth specimen up to 100-150 years+

Integrity/ Intactness: Only native canopy species are retained in the group structure [ie. no understorey species are present]. An exceptionally large old growth specimen Sydney Blue Gum (*E. saligna*) occurs on the verge adjacent to No.27 Loch-Maree Avenue. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, maintenance and tree removals]. Remnant BGHF groups are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Loch-Maree Avenue, Thornleigh – Road reserve

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. The trees display a varying level of insect damage, some with cavities/ hollows and dead wood in the crowns.

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration along the public road reservation. Seek to enhance connectivity to core BGHF areas within public reserves/ drainage corridors. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends that Trelawney Street group of remnant Blue Gum High Forest (near Loch-Maree Avenue) be included as a separate listing in the Hornsby Shire LEP.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Loch-Maree Avenue, Thornleigh – Road reserve

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Garden tree

Location: 253 Pennant Hills Road, Thornleigh [Lot 43 DP 263535]

Image/s:



Caption: View of specimen English Oak (*Quercus robur*) in rear garden of No. 253 Pennant Hills Road (Hillmont Road frontage).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 18.07.2007

Image Path:

Image File: P4110417.jpg

Thumb Nail Path:

Thumb Nail File: additional P7181021.jpg – English Oak (deciduous phase).

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Garden tree

Location: 253 Pennant Hills Road, Thornleigh [Lot 43 DP 263535]

Address: 253 Pennant Hills Road, Thornleigh [Lot 43 DP 263535]

Suburb/ Nearest Town: Thornleigh NSW 2120

Other/ Former Names:

Area/ Group/ Complex:

Aboriginal Area:

Curtilage/ Boundary: Lot 43 DP 263535 – rear garden

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – exotic planting

Category: Specimen tree – private garden

Owner: private

Current Use: private garden

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This English Oak (*Quercus robur*) is a magnificent multi-trunk specimen. The tree's cultivated origins are unknown however its impressive size and scale are consistent with other 'Hordern Oaks' dating from the late Inter-War period (refer to listing for 67A Murray Farm Road, Beecroft). In 1938 the Hordern family imported 50,000 oak seedlings from England to give away to customers in a store promotion to celebrate the retailer's 115th year of trading. This mature Oak may be one of these seedlings. Further investigation is required. This exotic, deciduous specimen has a broadly spreading canopy, a massive branching pattern and distinctive sculptural form. It is considered that this Oak has significance in terms of its historic/ cultural associations, visual, aesthetic and representative values.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Garden tree

Location: 253 Pennant Hills Road, Thornleigh [Lot 43 DP 263535]

Historical Notes or

Provenance: The HSHS (Perumal Murphy Wu Pty Ltd, 1993) stated that the tree may have been planted c.1920s however the size/ scale of this tree is consistent with other specimens planted in the late 1930s.

Physical Description: Single exotic specimen tree located in rear private garden of No.253 Pennant Hills Road.

Common Name(s):
English Oak

Botanical Name(s):
Quercus robur

Origin: Ornamental/ cultivated deciduous species (*Quercus robur* – Europe).

Extent of Influence: Canopy extends over rear garden/ paved courtyard and partially over neighbouring properties. The root zone is likely to extend to a similar or possibly larger area of influence.

Height: 16 metres

Canopy Spread: 22 metres

Trunk Diameter: 1300mm @ 1.0 metre above ground level

Estimated Age: 69 years

Integrity/ Intactness: Very high level of integrity and intactness with no major pruning history.

Condition/ Health: The tree appears to be in good condition and health with a dense canopy and minimal pruning.

Recommended

Management: ADD LOCAL HERITAGE LISTING TO HSLEP.

HSLEP4 – REVIEW recommends listing of this tree separately as a cultivated specimen rather than including the listing in the Hillmont Road remnant native tree group (Dadd, P., corro. 2007). For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Historic/ cultural associations possibly with Anthony Hordern retailer
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Garden tree

Location: 253 Pennant Hills Road, Thornleigh [Lot 43 DP 263535]

Criteria e)

Criteria f)

Criteria g)

References: Ref. No.54 (HSLEP – Stage 4 Review): Requests for Listing of New Items within Existing Listings – Community request for inclusion within Hillmont Road tree group (Dadd, P., Council correspondence 2007).

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.12.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Gardens and street trees

Location: Bundarra Avenue, Wahroonga

Image/s:



Caption: View of Bundarra Avenue (north) looking south – Remnant group of Blue Gum High Forest (BGHF) along eastern verge and adjoining gardens. Mixed exotic planting in large private gardens dominate much of the visual quality of the streetscape.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007

Image Path:

Image File: P4110392.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Gardens and street trees

Location: Bundarra Avenue, Wahroonga

Address: Bundarra Avenue, Wahroonga – Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Gardens and trees/ Street trees

Area/ Group/ Complex: Remnant native trees in private gardens and road reserve (public verge) as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural/ Cultural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF); and Parks, Gardens and Trees – exotic planting

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: Bundarra Avenue retains a highly fragmented group of native trees which are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. The large private gardens retain some of these trees with a mixed overlay of exotic ornamental planting. Together the remnant trees (BGHF) and cultivated specimen planting create a memorable streetscape quality. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The remnant BGHF group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. Some old growth specimen trees are of individual significance (including *Eucalyptus pilularis* in No.48 Bundarra Avenue (2 No.), 57A Bundarra Avenue (1 No.) and *Syncarpia*

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Gardens and street trees
Location: Bundarra Avenue, Wahroonga

glomulifera in No.49A Bundarra Avenue (1 No.). The large private gardens are formerly part of the Highlands Estate owned by A.J. Hordern (Godden Mackay Logan 2005). These gardens include specimen trees, paths, walls and gates dating from the Post War period. They are important components of the visual and aesthetic quality of the streetscape and are considered to have local significance. There are no cultivated specimen trees of individual significance. Residences Nos.58-60 and 64 Bundarra Avenue are listed in the HSLEP4 – REVIEW (Patrick O’Carrigan & Partners Final Report 2007).

Historical Notes or

Provenance: Items are of natural occurrence and cultivated origins. The HSHS (Perumal Murphy Wu Pty Ltd, 1993) identified the importance of cultural planting/ landscaping in adjoining gardens (Nos. 44-58 Bundarra Avenue) with well-maintained hedges, walls and trees including Norfolk Island Pines [*Araucaria heterophylla*], Cedar/ Deodar [*Cedrus atlantica ‘glauca’*], Poplars [*Populus* spp.] and Cypress [*Cupressus*] [some of which] dates from c.1950s period. The HSHS also describes the avenue as ‘conserving many older trees particularly Blackbutt, Blue Gums and Turpentines to 30 metres’. Many of these trees appear to have been removed since this inventory [1992].

Physical Description: The remnant native (BGHF) trees have been retained/ protected within the private gardens and public verge, particularly along the eastern side of Bundarra avenue. The native canopy species include the following:-

Common Name(s):	Botanical Name(s):
Smooth-barked Apple	<i>Angophora costata</i>
White Stringybark	<i>Eucalyptus globoidea</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Red Mahogany	<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i>
Sydney Blue Gum	<i>Eucalyptus saligna</i>
Turpentine	<i>Syncarpia glomulifera</i>

Origin: natural occurrence (see above for details); cultivated trees are not listed.

Extent of Influence: Canopies extend over private gardens, public verge and partially over roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 28 metres

Canopy Spread: up to 20-25 metres

Trunk Diameter: 300mm-1000mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only older canopy trees are retained in the group structure [ie. no sub-canopy or understorey species are present]. Natural recruitment is restricted by

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Gardens and street trees

Location: Bundarra Avenue, Wahroonga

current management practices [eg. regular mowing/ pruning, tree removals and general garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and is likely to be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies [overhead power lines/ canopy alignment]. The trees display a varying level of insect damage, some with basal cavities/ hollows and dead wood in the crowns.

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Godden Mackay Logan, Wahroonga(North) Heritage Conservation Area 2005
Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Gardens and street trees

Location: Bundarra Avenue, Wahroonga

Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780

Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983

Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)

Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.07.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Edwards Road, Wahroonga – Road reserve

Image/s:



Caption: View of Edwards Road – Remnant native tree group/ Blue Gum High Forest (BGHF) showing mature Sydney Blue Gums (*Eucalyptus saligna*) and Blackbutt (*Eucalyptus pilularis*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 25.07.2007

Image Path:

Image File: P4110400.jpg

Thumb Nail Path:

Thumb Nail File: additional P7251048.jpg – view of remnant native tree group/ Blue Gum High Forest (BGHF) looking east adjacent to No.26A Edwards Road.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Edwards Road, Wahroonga – Road reserve

Address: Edwards Road, Wahroonga – Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Group of remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This group of native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Clearing for agriculture and more recently, urban development, has significantly reduced the size of this community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. Although highly fragmented and reduced to only scattered remnant canopy trees, the group in Edwards Road is considered to have significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. This group is dominated by mature Sydney Blue Gums (*Eucalyptus saligna*), Blackbutts (*Eucalyptus pilularis*) and Smooth-barked Apple (*Angophora costata*). The dramatic size and scale of these mature trees create a distinctive sense of place and bushland aesthetic to this suburban streetscape. Some old growth

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Edwards Road, Wahroonga – Road reserve

specimen trees are of individual significance (eg. *Eucalyptus pilularis* in No.2 Edwards Road, *E. saligna* in No.13 Edwards Road and *Angophora costata* on verge adjacent to No.19 Edwards Road). Furthermore, these trees are part of a larger, albeit highly fragmented community (BGHF) on local shale-capped ridges (see listings for Fraser Road and Russell Avenue).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verge and adjoining private gardens mainly within the eastern portion of Edwards Road. The group includes the following canopy species:-

Common Name(s):	Botanical Name(s):
Smooth-barked Apple	<i>Angophora costata</i>
Rough-barked Apple	<i>Angophora floribunda</i>
Grey Ironbark	<i>Eucalyptus paniculata</i> subsp. <i>paniculata</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Sydney Blue Gum	<i>Eucalyptus saligna</i>

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verge, adjoining private properties and partially over the roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 25-30 metres

Trunk Diameter: up to 800mm-1000mm @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only canopy trees are retained within group structure [ie. no sub-canopy or understorey species are present]. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and general garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and is likely to be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. The trees display a varying level of insect damage, some with cavities/ hollows and dead wood in the crowns.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO REGIONAL SIGNIFICANCE. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Edwards Road, Wahroonga – Road reserve

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fern Avenue, Wahroonga – Road reserve

Image/s:



Caption: View of remnant Blue Gum High Forest in Fern Avenue looking west – Blackbutt (*Eucalyptus pilularis*) and Smooth-barked Apple (*Angophora costata*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 25.07.2007

Image Path:

Image File: P4110393.jpg

Thumb Nail Path:

Thumb Nail File: additional P7251047.jpg – view of remnant tree group/ Blue Gum High Forest (BGHF) in Fern Avenue looking east near Highlands Avenue.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fern Avenue, Wahroonga – Road reserve

Address: Fern Avenue, Wahroonga– Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Group of remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This group of native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community, typically associated with Wianamatta Shale. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The BGHF community has a highly restricted geographical distribution and has been highly fragmented and modified by urban development, particularly small-scale clearing and alterations associated with residential subdivision, roads and service easement upgrades.

Although fragmented and reduced to only scattered remnant canopy species, the Fern Avenue group is considered to have significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fern Avenue, Wahroonga – Road reserve

aesthetic values. The group displays a typical mixed species composition dominated by Blackbutt (*Eucalyptus pilularis*), Red Mahogany (*E. resinifera*) and Smooth-barked Apple (*Angophora costata*) including some of old growth specimens of individual significance. Together the trees create a memorable sense of place to this suburban streetscape and are evocative of the original bushland character. The trees are more or less contiguous with the Woonona Avenue (south) group.

Furthermore, Ingalara Avenue and Churchill Avenue (adjoining Fern Avenue) conserve outstanding groups of remnant trees (BGHF), including old growth specimens, which are not currently heritage listed. It is important to recognise the significance of this impressive cluster of trees within the Wahroonga local area (refer to listings for Woonona Avenue, Alexandria Parade, Edgeworth David Avenue and Bundarra Avenue).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verges and adjoining private gardens. The mixed native canopy species include:-

Common Name(s):	Botanical Name(s):
Smooth-barked Apple	<i>Angophora costata</i>
Rough-barked Apple	<i>Angophora floribunda</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Red Mahogany	<i>Eucalyptus resinifera</i> subsp. <i>resinifera</i>
Turpentine	<i>Syncarpia glomulifera</i>

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verge, adjoining private properties and partially over roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 15-25 metres

Canopy Spread: up to 25 metres

Trunk Diameter: av. 400mm-700mm (up to 900mm) @ 1.0 metre above ground level

Estimated Age: av. 50-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only canopy trees are retained within group structure [ie. no sub-canopy or understorey species are present]. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and general garden maintenance]. This remnant group is increasingly vulnerable

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Fern Avenue, Wahroonga – Road reserve

to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with some pruning to canopies [overhead power lines/ canopy alignment]. The trees display a varying level of insect damage, some with cavities/ hollows and dead wood/ broken branches in the crowns associated with storm damage.

Recommended Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

HSLEP4 – REVIEW recommends that Ingalara Avenue and Churchill Avenue groups of remnant Blue Gum High Forest (adjoining Fern Avenue group) be included as separate listings in the Hornsby Shire LEP.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Ingram Road, Wahroonga – Road reserve

Image/s:



Caption: View of Brush Box (*Lophostemon confertus*) avenue plantation looking south (near railway overpass).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007

Image Path:

Image File: P4110399.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Ingram Road, Wahroonga – Road reserve

Address: Ingram Road, Wahroonga – Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Roadside Trees/ Ingram Avenue Trees [and Carden Avenue]

Area/ Group/ Complex: Formal single species avenue plantation (cultural planting) on public verge as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – generic native planting

Category: Trees – street trees [formal avenue plantation]

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: The formal avenue plantation along Ingram Road is a fine example of late Post War period (c.1960s) public planting. This avenue is significant in terms of its historic/ cultural associations, visual/ aesthetic and representative values. The use of a single native species, Brush Box (*Lophostemon confertus*), continues an important local thematic approach typical of this period (eg. Myra Street plantation linking to Ingram Road, Edgeworth David Avenue, Wahroonga and Jersey Street, Hornsby). The original design intent of a single species avenue has been retained. Furthermore, overall integrity, balance and continuity of this avenue has been maintained with minimal pruning of canopies. This species has been used extensively in street tree plantations throughout Sydney since the early twentieth century and Hornsby Shire retains significant plantations associated with the Post War period.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Ingram Road, Wahroonga – Road reserve

Historical Notes or

Provenance: Brush Box avenue believed to have been planted c.1960s (Perumal Murphy Wu Pty Ltd, 1993). The HSHS also refers to Carden Avenue [location] however there is no avenue plantation in this adjacent street.

Physical Description: The avenue plantation is comprised of the following species:-

Common Name(s):

Brush Box

Botanical Name(s):

Lophostemon confertus [approx. 24 No.]

Origin: cultivated native of the NSW north coast and Qld.

Extent of Influence: Canopies extend over public verge and partially over adjoining private properties and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: 10-12 metres

Canopy Spread: 6-8 metres

Trunk Diameter: av. 300mm-500mm @ 1.0 metre above ground level

Estimated Age: 40-50 years+

Integrity/ Intactness: The overall integrity, balance and form of these trees has been retained through use of aerial bundling of overhead power lines (along eastern verge). Replacement and infill planting is minimal further retaining continuity and cohesiveness of the group.

Condition/ Health: Most trees appear to be in fair to good condition, typical of this species, age group/ structure with minimal pruning/ alignment to canopies.

Recommended

Management: RETAIN LOCAL HERITAGE LISTING IN HSLEP

For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Historic/ cultural associations with urban development
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Ingram Road, Wahroonga – Road reserve

Criteria e)

Criteria f)

Criteria g)

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W., 14.07.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Myra Street, Wahroonga – Road reserve

Image/s:



Caption: View of Brush Box (*Lophostemon confertus*) avenue plantation looking south along Myra Street (photo taken near No. 20 Myra Street).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 25.07.2007

Image Path:

Image File: P7251044.jpg

Thumb Nail Path:

Thumb Nail File:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Myra Street, Wahroonga – Road reserve

Address: Myra Street, Wahroonga – Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Formal avenue plantation (cultural planting) on public verges as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Cultural

Group: Parks, Gardens and Trees – generic native planting

Category: Trees – street trees [formal avenue plantation]

Owner: Hornsby Shire Council

Current Use: road reserve/ public verge

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: LOCAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: The formal avenue plantation of Brush Box (*Lophostemon confertus*) located along Myra Street is believed to date from the mid- to late Post-War period (c.1950s-1960s). The avenue is considered to have significance in terms of its historic, cultural visual/ aesthetic and representative values. A few Camphor Laurels (*Cinnamomum camphora*) have also been planted in the verge and some of these may pre-date the Brush Box plantation (eg. adjacent to No.17 Myra Street). In addition, the Myra Street group connects with the Ingram Road plantation to form a larger stand of heritage trees, albeit fragmented with past tree removals and infill planting. Both species have been used extensively in street tree planting schemes throughout Sydney since the early twentieth century. Camphor Laurel however is listed as a noxious weed in the Hornsby Shire (HSBCS 2006 - Appendix 14). Brush Box has been used in local planting programs associated with embellishment of new subdivisions, rail corridor and railway stations since the Post War period (see other listings).

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Myra Street, Wahroonga – Road reserve

Notably, remnant native trees/ Blue Gum High Forest (BGHF) occur in adjoining private gardens along Myra Street including a number of old growth specimens of individual significance (eg. Nos. 18, 22-26 Myra Street and other private properties). Some of these trees are up to 30 metres in height. None of these trees are identified in the HSHS or HSLEP.

Historical Notes or

Provenance: Brush Box avenue is believed to have been planted c.1950-1960s period (Perumal Murphy Wu Pty Ltd, 1993).

Physical Description: The avenue plantation is comprised of the following species:-

Common Name(s):

Brush Box

Camphor Laurel

Botanical Name(s):

Lophostemon confertus [approx.40 No.]

Cinnamomum camphora [4 No.]

Origin: cultivated

Extent of Influence: Canopies extend over public verge and partially over adjoining private properties and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: 10-14 metres; 6-7 metres (lopped – eastern verge)

Canopy Spread: up to 6-10 metres

Trunk Diameter: av. 300mm-500mm; (up to 800mm) @ 1.0 metre above ground level

Estimated Age: 40-50 years+

Integrity/ Intactness: Overall integrity of the avenue has been compromised by past losses/ removals, a program of mixed replacement planting and heavy pruning (pollarding) of canopies, particularly under overhead power lines along the eastern verge. Other management options such as aerial bundling of power lines (as in Ingram Road) should be considered.

Condition/ Health: Most of the Brush Box appear to be in fair to good condition, typical of this species, age group/ structure with extensive pruning/ alignment to canopies for overhead power lines [eastern verge]. The Camphor Laurels display extensive dead wood in the upper crowns.

Recommended

Management: RETAIN LOCAL HERITAGE LISTING IN HSLEP (ie. Brush Box group). The heritage listing should exclude the Camphor Laurels. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees

Location: Myra Street, Wahroonga – Road reserve

HSLEP4 – REVIEW recommends that remnant tree groups/ Blue Gum High Forest (BGHF) community in Myra Street (ie. in adjoining private gardens) be included in this heritage listing. Further investigation is required.

THIS GROUP IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Further Comments: Historic/ cultural associations with urban development
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g)

References:

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W., 14.07.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number: 1782122

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Russell Avenue, Wahroonga – Road reserve

Image/s:



Caption: View of Russell Avenue (eastern end) looking north – Blue Gum High Forest (BGHF). Group of mature Sydney Blue Gums (*Eucalyptus saligna*), including old growth specimens [left foreground].

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110401.jpg

Thumb Nail Path:

Thumb Nail File: additional P4110402.jpg – Sydney Blue Gums (*Eucalyptus saligna*) in Russell Avenue near Pennant Hills Road intersection (Cumberland Highway).

Hornsby Heritage Inventory

SHI Number: 1782122

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Russell Avenue, Wahroonga – Road reserve

Address: Russell Avenue, Wahroonga– Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Roadside Trees [in vicinity of Nos.44-50 and 49-59 Russell Avenue].

Area/ Group/ Complex: Large group of remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This large group of native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF). Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. The impressive stand of trees in Russel Avenue is dominated by Sydney Blue Gums (*Eucalyptus saligna*) of varying age structure. A large number of old growth specimens are each of individual significance. The dramatic size and scale of the trees creates a memorable sense of place and bushland character to this suburban streetscape. The group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. Furthermore, these trees are part of a larger, albeit highly fragmented (BGHF) community (refer to Edwards Road, Fraser Road, Malsbury Road and other local listings).

Hornsby Heritage Inventory

SHI Number: 1782122

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Russell Avenue, Wahroonga – Road reserve

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verge and adjoining private gardens, particularly (but not exclusively) within the eastern end (Nos. 44-50 and 49-59). This remnant Blue Gum High Forest (BGHF) community includes the following canopy species:-

Common Name(s):	Botanical Name(s):
Blackbutt	<i>Eucalyptus pilularis</i>
Sydney Blue Gum	<i>Eucalyptus saligna</i>

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verge, roadway and adjoining private properties. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 20-25 metres

Trunk Diameter: up to 1300mm @ 1.0 metre above ground level

Estimated Age: av. 40-60 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Generally, only canopy trees are retained within the group structure [ie. no sub-canopy or understorey species are present except for groups of *Acacia implexa*]. Notably, old growth specimens occur on the public verges adjacent to Nos. 8, 10, 36, 42 and 44A Russell Avenue, vacant lot No.57 Russell Avenue and a number of private gardens. Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies. The trees display a varying level of insect damage, some with cavities/ hollows and dead wood in the crowns.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO REGIONAL SIGNIFICANCE. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify

Hornsby Heritage Inventory

SHI Number: 1782122

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Russell Avenue, Wahroonga – Road reserve

potential seed sources for propagation and future restoration programs. Seek to establish a broader palette of locally-sourced BGHF components, including sub-canopy and understorey species. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: State Heritage Inventory Data Base Number: 1782122
Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) Taken for Granted. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Woonona Avenue, Wahroonga – Road reserve

Image/s:



Caption: View of remnant Blue Gum High Forest in Woonona Avenue looking south near Fern Avenue – Blackbutt (*Eucalyptus pilularis*) and Smooth-barked Apple (*Angophora costata*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 25.07.2007

Image Path:

Image File: P4110395.jpg

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Woonona Avenue, Wahroonga – Road reserve

Thumb Nail Path:

Thumb Nail File: additional P4110396.jpg – remnant Blue Gum High Forest in Woonona Avenue looking south [section north of Edgeworth David Avenue]; and P7251043.jpg – old growth specimen *Eucalyptus piperita* on verge adjacent to No.121 Edgeworth David Avenue.

Address: Woonona Avenue, Wahroonga– Road Reserve

Suburb/ Nearest Town: Wahroonga NSW 2076

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation communities – remnant tree group/ Blue Gum High Forest (BGHF) [dominant] grading to Peppermint-Angophora Forest.

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verges and private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: These native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. This community is typically associated with soils derived from Wianamatta Shale. At the far

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Woonona Avenue, Wahroonga – Road reserve

northern end of Woonona Avenue this community grades to Peppermint-Angophora Forest associated with Hawkesbury Sandstone. Although highly fragmented and reduced to remnant groups of canopy species (north and south of Edgeworth David Avenue), these trees are considered to have significance in terms of natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The groups display a typical mixed species composition dominated by Blackbutt (*Eucalyptus pilularis*), Sydney Peppermint (*E. piperita*) and Smooth-barked Apple (*Angophora costata*). Old growth specimens are of individual significance. Together the trees define a memorable sense of place to this suburban streetscape and are evocative of the original bushland character.

Notably, the southern group (south of Edgeworth David Avenue) merges with the Fern Avenue, Ingalara Avenue and Churchill Avenue groups. These groups conserve an impressive number of heritage trees including many old growth specimens. Ingalara Avenue and Churchill Avenue groups are not currently heritage listed. It is important to recognise the combined significance of this cluster of trees in the Wahroonga local area (see listings for Alexandria Parade, Edgeworth David Avenue, Bundarra Avenue and Fern Avenue).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These remnant native trees have been retained within the road reserve, particularly along the wide western verges and extend to adjoining private gardens on both sides of the road. The mixed native species include:-

Common Name(s):

Smooth-barked Apple
Rough-barked Apple
Red Bloodwood
Blackbutt
Sydney Peppermint
Sydney Blue Gum
Red Mahogany
Turpentine

Botanical Name(s):

Angophora costata
Angophora floribunda
Corymbia gummifera
Eucalyptus pilularis
Eucalyptus piperita
Eucalyptus saligna
Eucalyptus resinifera subsp. *resinifera*
Syncarpia glomulifera

Origin: natural occurrence (see above for details)

Extent of Influence: Canopies extend over public verge, adjoining private properties and partially over roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 18-25 metres

Canopy Spread: up to 15-25 metres

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Woonona Avenue, Wahroonga – Road reserve

Trunk Diameter: av. 300mm-600mm (up to 1400m) @ 1.0 metre above ground level

Estimated Age: av. 30-60 years+ / some old growth specimens up to 120-150 years+

Integrity/ Intactness: Generally, only canopy and sub-canopy species are retained within group structure [ie. no understorey species are present]. Old growth specimens Sydney Peppermint (*Eucalyptus piperita*) occur on the verge adjacent to No.121 Edgeworth David Avenue (1 No.) and front garden of No.88 Woonona Avenue (2 No.). Natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and general garden maintenance]. These remnant groups are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with varying levels of pruning to canopies [overhead power lines/ canopy alignment]. The trees display a varying level of insect damage, some with basal cavities/ hollows, dead wood in the crowns and epicormic growth.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. Aerial bundling of overhead power lines, particularly along the eastern verge (north of Edgeworth David Avenue) would reduce the level of lopping/ alignment to canopy trees. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Woonona Avenue, Wahroonga – Road reserve

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.07.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees] and bushland

Location: Alexandria Parade, Waitara – Road reserve

Image/s:



Caption: View of remnant native tree group/ Blue Gum High Forest community (BGHF) along eastern section of Alexandria Parade (adjacent to railway corridor).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 11.04.2007/ additional: 11.04.2007

Image Path:

Image File: P4110391.jpg

Thumb Nail Path:

Thumb Nail File: additional P4110398.jpg – view of Brush Box row plantation looking south-east along Alexandria Parade (adjacent to railway corridor).

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees] and bushland

Location: Alexandria Parade, Waitara – Road reserve

Address: Alexandria Parade – Road Reserve [Waitara – Wahroonga]

Suburb/ Nearest Town: Waitara NSW 2077

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Informal grouping of remnant native trees/ bushland and single species row plantation [cultural planting] within road reserve (public verge) as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural/ Cultural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF); and Parks, Gardens and Trees – native planting

Category: Trees – street trees [remnant native group/ formal row plantation]

Owner: Hornsby Shire Council

Current Use: public verge (adjoining rail corridor)

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: **REGIONAL** (GROUP A)/ **LOCAL** (GROUP B)
(HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: **Group A:** The road reserve adjacent to the railway easement conserves a significant linear group of Blue Gum High Forest (BGHF). Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. This community has a highly restricted geographic distribution and is typically associated with soils derived from Wianamatta Shale (Tozer 2003). Blue Gum High Forest has been highly fragmented and modified by urban development, particularly small-scale clearing and alterations associated with residential subdivision, roads and service easement upgrades.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees] and bushland

Location: Alexandria Parade, Waitara – Road reserve

This group has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. The group displays a typical mixed species composition dominated by Blackbutt (*Eucalyptus pilularis*), Sydney Blue Gum (*E. saligna*) and Smooth-barked Apple (*Angophora costata*). The dramatic scale of these trees define a memorable sense of place and provide an important visual buffer to the railway corridor. Notably, this group retains a native understorey, albeit highly modified by past clearing and weed invasion. Furthermore, the group is part of a significant cluster of fragmented remnant native trees (BGHF) in local streets (refer to listings for Woonona Avenue, Fern Avenue, Bundarra Avenue and Edgeworth David Avenue).

Group B: A formal row plantation of Brush Box (*Lophostemon confertus*), located in the western portion of Alexandria Parade, is believed to date from c.1950s period. The plantation has local group significance in terms of its historic, cultural, visual/ aesthetic and representative values. Brush Box has been used extensively in street tree planting schemes throughout Sydney since the early twentieth century. Locally, this plantation is part of a broader thematic planting program associated with upgrades and embellishment of railway stations and the rail corridor during the Post War period (refer to listings for Jersey Street, Hornsby and Denman Parade, Normanhurst).

Historical Notes or

Provenance: This listing includes items of natural occurrence [i.e. not cultivated] and a cultural planting [row plantation] dating from the Post War period.

Physical Description: **Group A:** Remnant native trees/ bushland (BGHF community) have been retained/ protected within the public verge (adjoining the rail corridor) between Myra Street and Sydney – Newcastle Freeway. Native canopy species include the following:-

Common Name(s):

Smooth-barked Apple
Rough-barked Apple
Blackbutt
Red Mahogany
Sydney Blue Gum

Botanical Name(s):

Angophora costata
Angophora floribunda
Eucalyptus pilularis
Eucalyptus resinifera subsp. *resinifera*
Eucalyptus saligna

Group B: This small, non-contiguous, single species row plantation - 11 No. Brush Box (*Lophostemon confertus*) is located on the southern verge (western end) adjacent to the railway corridor. Most of the trees are located on grassed islands within car parking bays.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees] and bushland

Location: Alexandria Parade, Waitara – Road reserve

Origin: **Group A:** natural occurrence; and

Group B: ornamental/ cultivated (*L. confertus* – NSW north coast and Qld.).

Extent of Influence: **Groups A and B:** Canopies extend over the public verge and partially over railway land and roadway. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: **Group A:** up to 25 metres; **Group B:** 8-12 metres

Canopy Spread: **Group A:** up to 20 metres; **Group B:** 5-8 metres

Trunk Diameter: **Group A:** up to 900mm @ 1.0 metre above ground level

Group B: 300mm-450mm @ 1.0 metre above ground level

Estimated Age: **Group A:** av. 50-80 years+ / old growth specimens up to 100-120 years+

Group B: av. 50-60 years+

Integrity/ Intactness: **Group A:** In addition to canopy trees, understorey/ ground stratum species are present within the group including *Exocarpus cupressiformis*, *Polyscias sambucifolia*, *Pittosporum undulatum*, *Acacia implexa* and *Calochlaena*, *Pteridium*, *Imperata*, *Themeda* and *Lomandra* spp.). Natural recruitment is restricted by current management practices [eg. road/ railway maintenance clearing and tree removals]. Remnant groupings are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.
Group B: Non-contiguous group with heavy pruning/ alignment to canopies.

Condition/ Health: **Group A:** This community has been affected by clearing, soil disturbance, rubbish dumping and weed invasion. The narrow linear configuration of this remnant group further exposes it to a range of ongoing edge conditions and impacts. This group would respond to a bush regeneration strategy. Most trees appear to be in fair to good condition, with minimal pruning to canopies. Trees display a varying level of insect damage, some with cavities/ hollows, dead wood in the crowns and epicormic growth.
Group B: Most trees appear to be in poor to fair condition with heavy pruning (alignment) along the rail corridor boundary, thinning canopies and crown die-back in a number of trees, possibly due to recent drought conditions.

Recommended

Management: **GROUP A: UPGRADE LISTING IN HSLEP TO REGIONAL SIGNIFICANCE. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.**

Investigate opportunities for enhanced natural recruitment/ regeneration, including an appropriately funded bush regeneration strategy along the corridor (road reserve/ rail easement). Identify potential seed sources for propagation and future restoration programs.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees] and bushland

Location: Alexandria Parade, Waitara – Road reserve

GROUP B: RETAIN LOCAL HERITAGE LISTING IN HSLEP (ie. Brush Box).
For further detailed assessment of health, condition and tree management recommendations (Groups A and B), a qualified arborist should be consulted.

Further Comments: Blue Gum High Forest (BGHF) scheduled under EPBC & TSC Acts
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 15.07.1992].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number 1780914

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees/ reserve

Location: Cardinal Avenue, West Pennant Hills – Road reserve [north of Pennant Hills Road]

Image/s:



Caption: View looking south (near Victoria Road intersection) of remnant Blue Gum High Forest (BGHF) group.

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 16.07.200711/ additional: 11.04.2007

Image Path:

Image File: P7160960.jpg

Thumb Nail Path:

Hornsby Heritage Inventory

SHI Number 1780914

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees/ reserve

Location: Cardinal Avenue, West Pennant Hills – Road reserve [north of Pennant Hills Road]

Thumb Nail File: additional P4110425.jpg – view of Samuel Oxley Park looking south-west from Boyd Avenue. Sydney Blue Gums (*Eucalyptus saligna*) dominate this remnant BGHF community; P4110424.jpg – view of Cardinal Avenue and Samuel Oxley Park looking north (near Boyd Avenue) – large group of remnant native trees (Blue Gum High Forest).

Address: Cardinal Avenue, West Pennant Hills – Road Reserve [north of Pennant Hills Road and including Samuel Oxley Park].

Suburb/ Nearest Town: West Pennant Hills NSW 2125

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Major group of remnant native trees in road reserve (public verge), public reserve (Samuel Oxley Park) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees/ reserve trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verge/ private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This large group of native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest (BGHF) has a highly restricted geographic distribution and is typically associated with soils derived from Wianamatta Shale (Tozer 2003). The community has been highly fragmented and modified by urban development, particularly small-scale clearing and alterations associated with residential subdivision, roads and service easement upgrades. Blue Gum High Forest in

Hornsby Heritage Inventory

SHI Number 1780914

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees/ reserve

Location: Cardinal Avenue, West Pennant Hills – Road reserve [north of Pennant Hills Road]

the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*.

The group of trees has significance in terms of its natural, representative, rarity, ecological/ biodiversity, genetic, visual and aesthetic values. Sydney Blue Gums (*Eucalyptus saligna*), and to a lesser degree, Blackbutts (*Eucalyptus pilularis*), of varying age structure, are dominant. Some old growth specimen trees are of individual significance. Throughout much of the road reserve, the BGHF group is fragmented and reduced to remnant canopy trees. Many trees are located within adjoining private residential gardens further extending and reinforcing the integrity of this group.

Notably, the group includes a small but important contiguous cluster of trees centred around Samuel Oxley Park. The massing of mature trees creates an impressive sense of scale and memorable bushland character to this suburban streetscape/ locality. Although only very small in size (0.29Ha), the park conserves a significant remnant of the BGHF community (HSBCS 2006, Appendix 13). The park is likely to conserve a vital seed bank of native understorey and ground stratum species (currently under a regular mowing/ maintenance regime). Furthermore, these trees are part of a much larger, albeit highly fragmented community (BGHF) scattered throughout local road verges, private gardens, public reserves and easements (refer to listings).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees (BGHF community) have been retained/ protected within the public verge, public reserve (Samuel Oxley Park) and gardens of adjoining private properties between Pennant Hills Road and Victoria Road. The group includes the following tree species:-

Common Name(s):

Rough-barked Apple

Grey Ironbark

Blackbutt

Sydney Blue Gum

Botanical Name(s):

Angophora floribunda

Eucalyptus paniculata subsp. *paniculata*

Eucalyptus pilularis

Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Hornsby Heritage Inventory

SHI Number 1780914

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees/ reserve

Location: Cardinal Avenue, West Pennant Hills – Road reserve [north of Pennant Hills Road]

Extent of Influence: Canopies extend over road verges, roadway, public reserve and adjoining private properties. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 25 metres

Trunk Diameter: up to 1000mm (av. 400mm-700mm) @ 1.0 metre above ground level

Estimated Age: av. 40-60 years+ / some old growth specimens up to 100-120 years+

Integrity/ Intactness: Only canopy trees are retained in the group structure [no sub-canopy or understorey species are present]. Adjoining private gardens retain a number of specimen and old growth trees. No.542 Pennant Hills Road (rear garden) retains a multi-trunk regrowth specimen (30 metres high/ 20 metres canopy diameter/approx.1600mm DBH). For all areas, natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and garden maintenance]. Remnant native trees are increasingly vulnerable to further fragmentation and attrition and may be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies [overhead power lines/ canopy alignment]. The trees display a varying level of insect damage, some with large basal cavities (eg. *Eucalyptus saligna* on verges adjacent to No.74 and opposite No.121 Cardinal Avenue) and dead wood in the crowns.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

NOTE: State Heritage Inventory Data Base Number: 1780914 includes the section of Cardinal Avenue south of Pennant Hills Road. HSLEP4 – REVIEW separates Cardinal Avenue into two listings (ie. BEECROFT and WEST PENNANT HILLS). For southern section refer to BEECROFT.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Hornsby Heritage Inventory

SHI Number 1780914

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees/ reserve

Location: Cardinal Avenue, West Pennant Hills – Road reserve [north of Pennant Hills Road]

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy (HSBCS) 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)
Tozer, MG. (2003) *Cunninghamia* 8(4): 1-75

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 29.04.1993].

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Dean Street, West Pennant Hills – Road reserve

Image/s:



Caption: View looking east (near Cardinal Avenue intersection) showing remnant Blue Gum High Forest (BGHF) community dominated by (*Eucalyptus saligna*).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 16.07.2007/ additional: 16.07.2007

Image Path:

Image File: P7160962.jpg

Thumb Nail Path:

Thumb Nail File: additional P7160963.jpg – view of remnant BGHF community looking west opposite No.10 Dean Street.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Dean Street, West Pennant Hills – Road reserve

Address: Dean Street, West Pennant Hills – Road Reserve

Suburb/ Nearest Town: West Pennant Hills NSW 2125

Other/ Former Names: Roadside Trees

Area/ Group/ Complex: Group of remnant native trees in road reserve (public verge) and adjoining private gardens as scheduled.

Aboriginal Area:

Curtilage/ Boundary: see description

Item Type: Landscape – Natural

Group: Vegetation community – remnant tree group/ Blue Gum High Forest (BGHF)

Category: Trees – street trees [informal group]

Owner: Hornsby Shire Council/ private

Current Use: public verge/ private gardens

Former Uses:

Assessed Significance: LOCAL (HSHS Perumal Murphy Wu 1993/ HSLEP 1994)

Endorsed Significance: REGIONAL (HSLEP-4 REVIEW LandArc 2007)

Statement of Significance: This fragmented group of native trees are remnant components (canopy trees) of the Blue Gum High Forest (BGHF) community. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is listed as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*. This group retains primarily mature Sydney Blue Gums (*Eucalyptus saligna*) of similar age structure. The dramatic size and scale of these trees create a memorable sense of place and outstanding aesthetic quality to this suburban streetscape. Together the trees have local significance in terms of their natural, representative, rarity, ecological/ biodiversity, visual and aesthetic values. Some old growth specimen trees, particularly within adjoining private gardens, are of individual significance.

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]
Location: Dean Street, West Pennant Hills – Road reserve

Blue Gum High Forest has a very restricted geographical distribution which has been further reduced by urban development. Remnant trees are now largely scattered throughout local road verges, private gardens and drainage reserves. These trees in Dean Street are important components of this highly fragmented BGHF community (refer to other BGHF listings).

Historical Notes or

Provenance: All items of natural occurrence [ie. not cultivated].

Physical Description: These native trees have been retained/ protected within the public verge and adjoining private gardens. The group includes the following native species:-

Common Name(s):

Rough-barked Apple

Blackbutt

Red Mahogany

Sydney Blue Gum

Botanical Name(s):

Angophora floribunda

Eucalyptus pilularis

Eucalyptus resinifera subsp. *resinifera*

Eucalyptus saligna [dom.]

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopies extend over public verge, roadway and adjoining private properties. The root zones are likely to extend to a similar or possibly larger area of influence.

Height: up to 25-30 metres

Canopy Spread: up to 25 metres

Trunk Diameter: up to 1000mm (av. 600mm-800mm) @ 1.0 metre above ground level

Estimated Age: av. 60-80 years+/- some old growth specimens up to 100-120 years+

Integrity/ Intactness: Notably, adjoining private gardens retain a significant proportion of the Dean Street BGHF group. Some private gardens retain particularly large old growth specimens (eg. *E. pilularis* in front garden of No.41 and *E. saligna* in gardens of Nos.20, 36 and 48-50A).

Only canopy and sub-canopy species are retained within group structure [no understorey species present] – natural recruitment is restricted by current management practices [eg. regular mowing/ pruning, tree removals and general garden maintenance]. This remnant group is increasingly vulnerable to further fragmentation and attrition and is likely to be lost altogether over time unless these management issues are properly addressed.

Condition/ Health: Most trees appear to be in fair to good condition with minimal pruning to canopies [overhead power lines/ canopy alignment]. The group displays a

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Dean Street, West Pennant Hills – Road reserve

varying level of insect damage, hollows/ cavities and dead wood in the crowns.

Recommended

Management: UPGRADE THIS ITEM LISTING IN HSLEP TO **REGIONAL SIGNIFICANCE**. THIS ITEM IS A VITAL COMPONENT OF A CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY OF NATIONAL AND STATE SIGNIFICANCE.

Investigate opportunities for enhanced natural recruitment/ regeneration and connectivity particularly within gaps along the public road reservation. Identify potential seed sources for propagation and future restoration programs. Seek to establish a broader palette of locally-sourced BGHF species. For further detailed assessment of health, condition and tree management recommendations, a qualified arborist should be consulted.

Further Comments: Remnant native canopy species (BGHF scheduled under EPBC & TSC Acts)
Ecological/ biodiversity and genetic values (including faunal habitat)
Aesthetic/ visual significance (local neighbourhood/ streetscape)

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) item possesses rare or endangered aspects of NSW's natural history (EPBC Act 1999 and TSC Act 1993)

Criteria g) item is important in demonstrating the principal characteristics of a class of natural places or natural environments.

References: Hornsby Shire Council, Biodiversity Conservation Strategy (HSBCS) 2006
Smith, P & Smith, J. Native Vegetation Communities of Hornsby Shire, 2007
NSW Scientific Committee – final determinations, DE&CC (NSW), 2007
Benson, D & Howell, J. (1994) *Cunninghamia* 3(4): 677-780
Benson, D & McDougall, L. (1998) *Cunninghamia* 5(4): 808-983
Benson, D & Howell, J. (1990) *Taken for Granted*. (Kangaroo Press)

Studies: Hornsby Shire Heritage Study, Perumal Murphy Wu Pty Ltd for Hornsby Shire Council and the NSW Department of Planning (1993) [Survey by: Ashton, W 28.04.1993].

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Street trees [Roadside trees]

Location: Dean Street, West Pennant Hills – Road reserve

Latitude:

Longitude:

Location Validity:

Map Name:

Spatial Accuracy:

AMG Zone:

Map Scale:

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Sydney Blue Gum

Location: 540 Pennant Hills Road, West Pennant Hills [Lot 11 DP 818114]

**RECOMMENDATION: REMOVE ITEM FROM HERITAGE LISTING/
INCLUDE WITHIN EXPANDED GROUP LISTING**

Image/s:



Caption: View of multi-trunk regrowth specimen Sydney Blue Gum (*Eucalyptus saligna*) in rear garden of No.540 Pennant Hills Road (photo taken from Cardinal Avenue).

Copyright: Hornsby Shire Council

Image By: Noel Ruting, LandArc Pty Limited

Image Date: 16.07.2007

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Sydney Blue Gum

Location: 540 Pennant Hills Road, West Pennant Hills [Lot 11 DP 818114]

Image Path:

Image File: P7160961.jpg

Thumb Nail Path:

Thumb Nail File:

Address: 540 Pennant Hills Road, West Pennant Hills NSW 2125 [Lot 11 DP 818114]
SITE INVESTIGATION: No property address identified as 540 Pennant Hills Road (Nos. 538 and 542 only).

Suburb/ Nearest Town: West Pennant Hills NSW 2125

Other/ Former Names:

Area/ Group/ Complex:

Aboriginal Area:

Curtilage/ Boundary: Lot 11 DP 818114 – rear garden

Item Type: Landscape – Natural

Group: Vegetation community – remnant of Blue Gum High Forest (BGHF)

Category: Tree [individual specimen]

Owner: private

Current Use: private garden

Former Uses:

Assessed Significance: LOCAL (State Heritage Inventory Data Base 2001/ HSLEP 1994)

Endorsed Significance: NOT SIGNIFICANT AS INDIVIDUAL SPECIMEN -
INCLUDE WITHIN CARDINAL AVENUE [NORTH] LISTING
(HSLEP-4 REVIEW LandArc 2007)

This Sydney Blue Gum (*Eucalyptus saligna*) is part of a larger contiguous group of heritage listed trees (BGHF community) – refer to Cardinal Avenue

Hornsby Heritage Inventory

SHI Number

Hornsby Heritage Inventory – Stage 4

Item Name: Sydney Blue Gum

Location: 540 Pennant Hills Road, West Pennant Hills [Lot 11 DP 818114]

[north] listing. This multi-trunk regrowth specimen (old growth) appears to be of similar size and scale to many other mature and old growth trees in this BGHF group (no detailed investigation) and is not considered to be of individual significance. Nevertheless, this Sydney Blue Gum has significance as a component of the remnant tree group and should be included within the broader listing. Blue Gum High Forest in the Sydney Basin Bioregion (BGHF) is scheduled as a critically endangered ecological community in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and NSW *Threatened Species Conservation Act 1995*.

Historical Notes or Provenance:

Physical Description: Remnant individual specimen tree (BGHF community) located in rear garden.

Common Name(s):
Sydney Blue Gum

Botanical Name(s):
Eucalyptus saligna

Origin: natural occurrence (BGHF remnant)

Extent of Influence: Canopy extends over this private garden and adjoining properties. The root zone is likely to extend to a similar or possibly larger area of influence.

Height: 30 metres

Canopy Spread: 20 metres

Trunk Diameter: 1600mm? @ 1.0 metre above ground level

Estimated Age: 100-120 years+

Integrity/ Intactness:

Condition/ Health: This tree appears to be in good condition. No detailed investigation was conducted due to restricted access to property (11/04/2007 and 16/07/2007).

Recommended

Management: INCLUDE ITEM WITHIN THE CARDINAL AVENUE [NORTH] LISTING AND REMOVE SINGLE ITEM LISTING (ie. 540 Pennant Hills Road) IN HSLEP.

References: State Heritage Inventory Data Base Number – not shown (HSLEP amendment No.59 Gazettal Date: 22/06/2001 No.100, page 4376).

Studies: No Inventory Sheet (HSHS 1993).