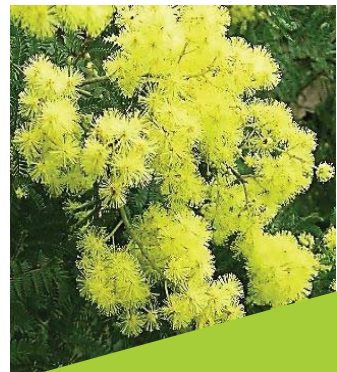


Rare and Threatened Flora of Fairfield Local Government Area



Introduction 3

Environment 4

Vegetation 5

Summary of Threatened Flora 8

Critically Endangered Flora 9

Endangered Flora 13

Vulnerable Flora 24

Regionally Significant Plant Species 25

Useful References 28

Figure 1 - Map of soil landscapes within the Fairfield LGA

Figure 2 - Vegetation communities of the Fairfield LGA

Table 1 - Important remnants within the Fairfield LGA

Table 2 - Differences between Shale Hills Woodlands and Shale Plains
Woodland

Table 3 - Other regionally and locally significant plant species

* All photographs were taken by Teresa James except where credited otherwise.

Although the natural areas of Fairfield City have been extensively modified since European settlement, there are still a variety of native vegetation communities present and interesting plant species. The remnant flora along with the native fauna, however, are becoming increasingly rare and threatened as development encroaches and fragments natural areas, water quality declines and weeds replace native species. This booklet is a guide to what native flora is still present and draws attention to their rarity and vulnerability.

Fairfield City Council's Natural Resources Program aims to reduce and prevent these impacts to ensure our natural areas can be enjoyed by present and future generations. The local community can also play an important role in protecting and enhancing these areas through active involvement with local environmental groups including the Fairfield Indigenous Flora Park group, Fairfield Creeks and Wetlands Group and Fairfield Community Nursery Volunteers.



Creek and Wetlands Group (photograph provided by Fairfield City Council)

The Fairfield local government area covers an area of c. 100 km² and is located 42 km south-west of the Sydney CBD on the Cumberland Plain. The terrain is gently undulating with wide valleys and a hillier landscape to the west of Wallgrove Road and M7 associated with a north to south ridge through Horsley Park and Cecil Park containing the highest point on the Cumberland Plain (Melville Hill) at 159 m above sea level. This ridge-line corridor is now part of the Western Sydney Parklands. The western part of the LGA is still predominantly rural land use and parkland with larger patches of remnant native vegetation contrasting with dense urban development in flatter eastern parts where remnant native vegetation is restricted to small isolated patches and narrow zones along modified creek-lines, roads or railways.

The soils are mostly derived from Wianamatta Shales (Blacktown, Luddenham and Picton soil landscapes) and on the floodplains and valley flats from Quaternary alluvium (South Creek and Richmond soil landscapes). Small patches of Tertiary alluvium (Berkshire Park soil landscape) occur in the vicinity of Prospect Creek. Native vegetation communities within the LGA are closely associated with these soils.

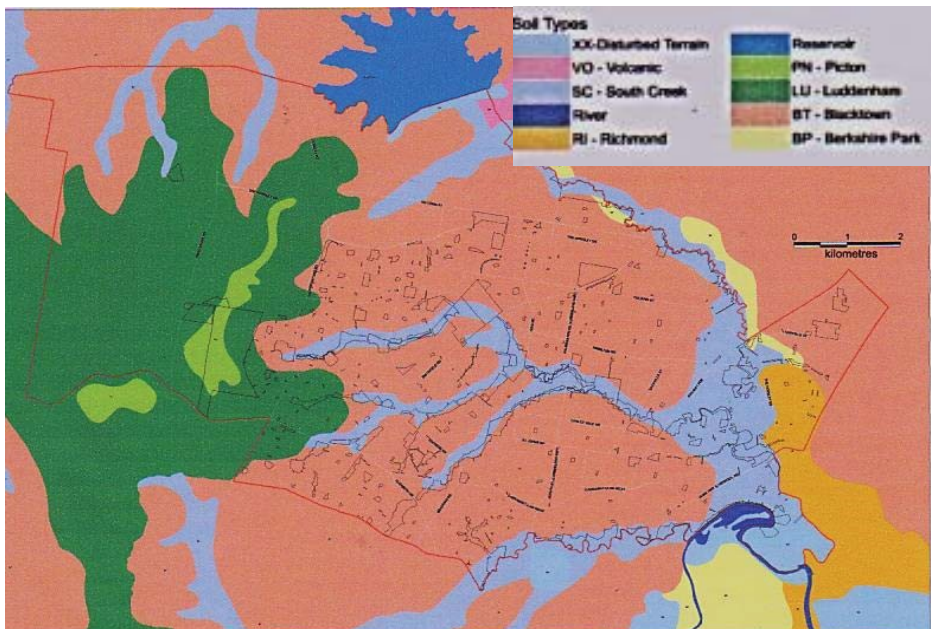


Figure 1: Map of soil landscapes within the Fairfield LGA

The LGA is dissected by Prospect Creek and Orphan School Creek (latter is completely within Fairfield) and the lower section of Cabramatta Creek runs along the south-east boundary, all draining into the George's River. Eastern Creek arises in the north-west of the LGA within the Hawkesbury-Nepean River catchment.

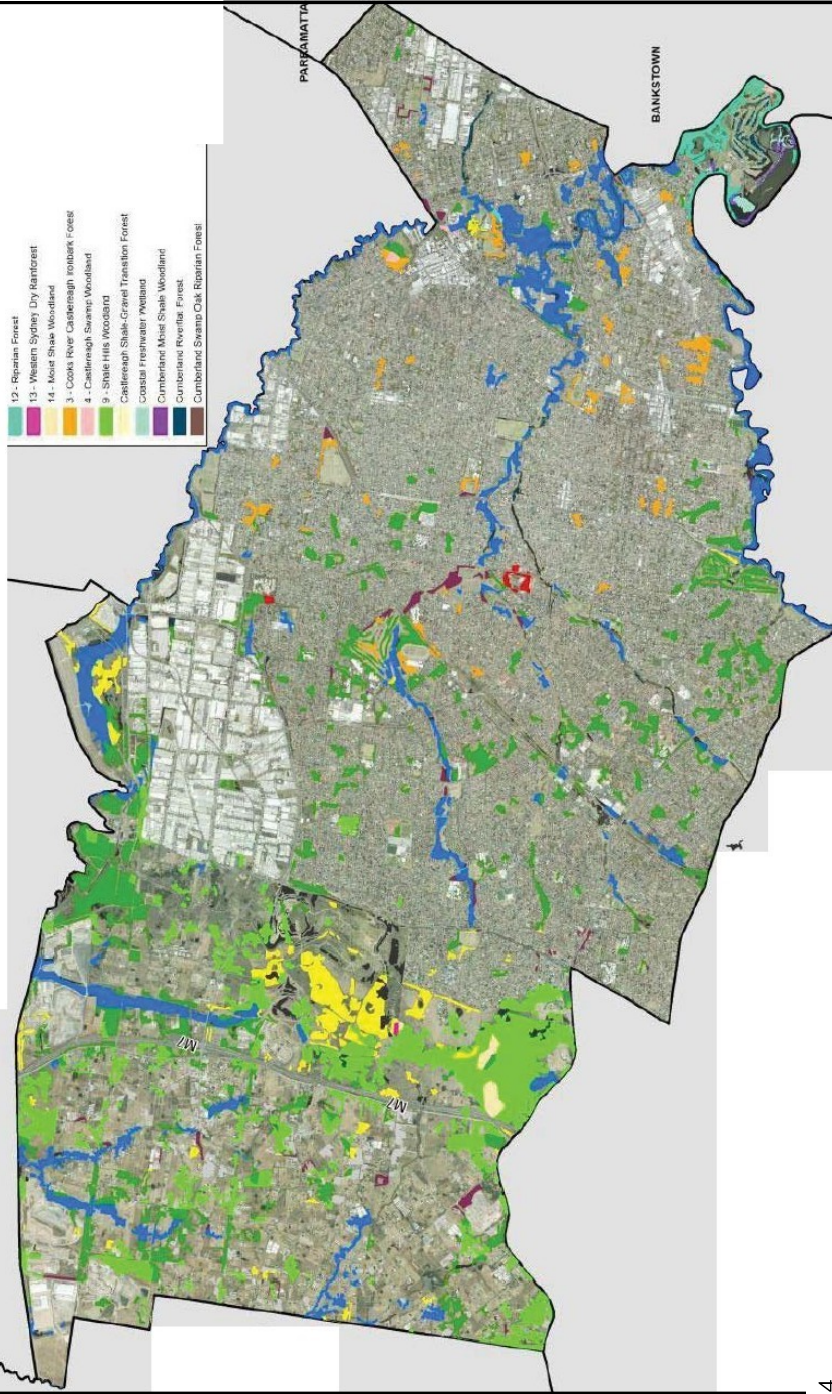
Vegetation

Nine native vegetation communities occur within the Fairfield LGA, most of which are listed as threatened under state and national environmental legislation. Cumberland Plain Woodland (on shale) and River-flat Eucalypt Forest (on recent alluvium) were dominant communities in the original vegetation cover with smaller areas of Cooks River/Castlereagh Ironbark Forest and Shale Gravel Transition Forest (on older Tertiary alluvium), Western Sydney Dry Rainforest (on shale) and Freshwater Wetlands (on recent alluvium) - see figure 2 opposite and enlarged key below.

The only non-threatened community is Estuarine Mangrove Forest and reedland found in the south-east of the LGA. Around 260 native plant species are recorded for the LGA with over a half considered vulnerable and inadequately conserved in western Sydney (Rare Bushland Plants of Western Sydney, James et. al 1999). Important populations of at least four threatened plant species are found - *Acacia pubescens*, *Pimeleas picata*, *Cynanchum elegans*, *Marsdenia viridiflora* subsp.



Figure 2: Vegetation communities of Fairfield LGA



Some important remnants of the original native vegetation cover occurring in Fairfield are identified below.

Table 1: Important remnants within the Fairfield LGA

Remnant location	Threatened communities	Threatened/rare plant species
Western Sydney Parklands, Calmsley City Farm	Cumberland Plain Woodland, Moist Shale Woodland, Western Sydney Dry Rainforest, River-flat Eucalypt Forest	<i>Acacia pubescens</i> , <i>Pimelea spicata</i> , <i>Cynanchum elegans</i> , <i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i> , several rare rainforest species
Fairfield Flora Park and Showground	Cumberland Plain Woodland, Shale Gravel Transition Forest, River-flat Eucalypt Forest, Cooks River Castlereagh Ironbark Forest	<i>Acacia pubescens</i> , <i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i> , <i>Pomaderris prunifolia</i>
Bossley Public School Reserve, Bossley Road	Cumberland Plain Woodland intergrading with Shale Gravel Transition Forest	<i>Acacia pubescens</i> Unusual occurrence of Grey Ironbark <i>Eucalyptus beyeriana</i>
Orphan School Creek Corridor (contains several small remnants)	Cumberland Plain Woodland, River-flat Eucalypt Forest	<i>Acacia pubescens</i> , <i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i>
Prospect Creek & Cabramatta Creek Corridors	River-flat Eucalypt Forest, Western Sydney Dry Rainforest Freshwater Wetlands	<i>Acacia pubescens</i> , <i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i> ; rare rainforest species e.g. <i>Aphanopetalum resinum</i> , <i>Alectryon subcinereus</i>
Northern & eastern remnants away from creek-lines	Cumberland Plain Woodland intergrading with Shale Gravel Transition Forest & Cooks River Castlereagh Ironbark Forest	<i>Acacia pubescens</i> , <i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i> , <i>Persoonia nutans</i> ; Potential - <i>Pultenaea pedunculata</i> , <i>Hibbertia puberula</i> subsp. <i>glabrescens</i>
Chipping Norton Lakes & De Freitas Wetland	Cumberland Plain Woodland, River-flat Eucalypt Forest, Swamp Oak Floodplain Forest, Freshwater Wetlands; Cooks River Castlereagh Ironbark Forest & transitional forest at Lansvale on northern side of lake	Regionally significant wetland species e.g. <i>Cladium procerum</i> and <i>Carex fascicularis</i> .

Listed under :

BC Act (2016) = Biodiversity Conservation Act (NSW) and/or

EPBC Act (1999) = Environment Protection Biodiversity Conservation Act (National)

CRITICALLY ENDANGERED

Ecological Communities

- Cumberland Plain Woodland (BC Act)
- Cumberland Plain Woodland & Shale Gravel Transition Forest (EPBC Act)
- Western Sydney Dry Rainforest (BC Act)
- Western Sydney Dry Rainforest & Moist Shale Woodland (EPBC Act)

Threatened Species

- *Hibbertia puberula* subsp. *glabrescens* - Potential to occur

ENDANGERED

Ecological Communities

- Cooks River Castlereagh Ironbark Forest
- Moist Shale Woodland
- River-flat Eucalypt Forest
- Shale Gravel Transition Forest
- Freshwater Wetlands on Coastal Floodplains

Populations

- *Marsdenia viridiflora* subsp. *viridiflora*
- *Pomaderris prunifolia*

Threatened Species

- *Cynanchum elegans*
- *Pimelea spicata*
- *Persoonia nutans* (old record)
- *Pultenaea pedunculata* – potential to occur

VULNERABLE

Threatened Species

- *Acacia pubescens*

Cumberland Plain Woodland (CPW)



Bossley Public School Reserve



Regenerating CPW at Lalich Av Reserve



Weedy patch of CPW along a road reserve in Horsey Park



Lalich Av Reserve with mown grassland and a small island patch regenerating

Conservation status: Critically endangered under both state & national legislation. National listing includes Shale Gravel Transition Forest. Only around 8% of the original extent survives today.

Description: Typically woodland to open-forest with trees 15-30 m high above an open grassy understorey with smaller trees and scattered shrubs.

Key canopy trees: Grey Box *Eucalyptus moluccana*, Forest Red Gum *E. tereticornis* and Narrow-leaved Ironbark *E. crebra*.

Understorey species: Native Blackthorn *Bursaria spinosa*, Black Wattle *Acacia decurrens*, Native Indigo *Indigofera australis*, Flax Lily *Dianella longifolia*, Kangaroo Grass *Themeda australis* and Weeping Grass *Microlaena stipoides*. There are two forms of CPW (Shale Hills Woodland & Shale Plains Woodland) identified in recent mapping although floristically they are very similar. Spotted Gum Forest can also be recognized as a sub-community of which Fairfield has some good examples e.g. Fairfield Flora Park, Western Sydney Parklands and SW of Prospect Reservoir.

Table 2: Difference between Shale Hills & Shale Plains Woodland

CPW form	Landscape	Dominant canopy species	Understorey indicator
Shale Hills Woodland	Hilly terrain in southern parts of Cumberland Plain	Grey Box, Narrow-leaved Ironbark, Forest Red Gum, (Spotted Gum)	Hickory Wattle <i>Acacia implexa</i> very common
Shale Plains Woodland	Flat to gentle terrain	Grey Box, Forest Red Gum (Spotted Gum, Narrow-leaved Ironbark)	<i>Acacia implexa</i> uncommon

Distribution: Restricted to Cumberland Plain in western Sydney. Remnants are typically small and modified due to clearing, grazing, mowing & weed invasion. Includes scattered trees above grassland & grassland (no trees) as long as good native species cover is present.

Rare species: Spiked Riceflower *Pimelea spicata*, Downy Wattle *Acacia pubescens*, Native Pear *Marsdenia viridiflora* subsp. *viridiflora*, Sydney Plains Greenhood *Pterostylis saxicola*, Juniper-leaved Grevillea *Grevillea juniperina* var. *juniperina* & Matted Bush-pea *Pultenaea pedunculata*. Rare fauna include Cumberland Land Snail, Swift Parrot, Powerful Owl, Yellow-bellied Glider and several micro-chiropteran bats.

Fairfield locations: Larger areas in Western Sydney Parklands and many small remnants scattered through the LGA including:

- Bossley Public School Reserve
- Fairfield Flora Reserve and Showground
- Prout Park, Mt. Pritchard
- Allambie Reserve, Edensor Park
- Lalich Road Reserve
- Wetherill Park Reserve
- Prospect Reservoir (SW corner)



Spotted Gum Woodland at Allambie Reserve

The regeneration of many native species can occur when activities such as mowing are stopped as seen in any council reserves in Fairfield and other parts of western Sydney.

Western Sydney Dry Rainforest (WSDRF)



Calmsley City Farm



Irelands Bridge Reserve

Conservation status: Endangered at state level, critically endangered at national level. Restricted to small patches in western Sydney, poorly conserved.

Description: On steep protected slopes on shale, often in gullies or near creeks. **Trees/shrubs** include Prickly-leaved Paperbark, *Melaleuca styphelioides*, Grey Myrtle *Backhousia myrtifolia*, Whalebone Tree *Streblus brunonianus*, Hairy Clerodendrum *Clerodendrum tomentosum* & the Fig *Ficus rubiginosa*. Scattered emergent trees include Forest Red Gum *Eucalyptus tereticornis*, Spotted Gum *Corymbia maculata* & Rough-barked Apple *Angophora floribunda*. The **understorey** is dominated by ferns, herbs & grasses. Vines are common and include Wombat Berry *Eustrephus latifolius* and Native Grape *Cayratia clematidea*.

Distribution: Sporadic in western Sydney e.g. Cobitty, Calmsley City Farm, Kurrajong and Cattai. An interesting patch has been found on the disturbed bank of Cabramatta Creek in Irelands Bridge Reserve with similar species also known along Prospect Creek (Holroyd).

Rare species: The climber *Cynanchum elegans* (White-flowered Wax Plant) and several regionally rare rainforest species e.g. Native Quince *Alectryon subcinereus*, Gum Vine *Aphanopetalum resinosum*, Sicyos *australis*, Cockspur Thorn *Maclura cochinchinensis* & Whale Bone *Streblus brunonianus*.



Whale Bone Tree

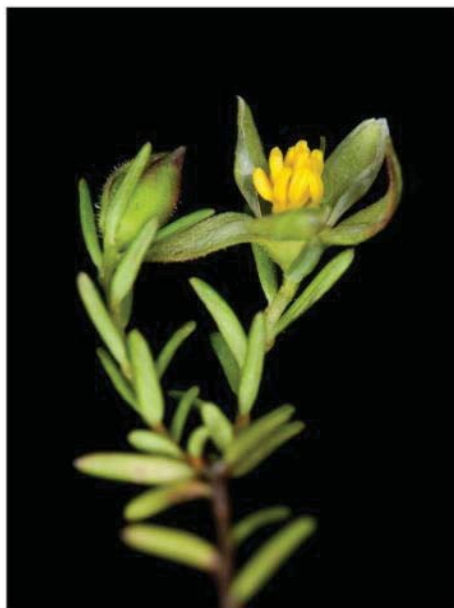


Gum Vine

Hibbertia puberula subsp. *glabrescens*

(Listed under BC Act as *Hibbertia* sp. Bankstown)

*Located in Bankstown, has potential to occur in Fairfield.



Images taken from Plant Net (RBG Sydney)

Family Dilleniaceae. **Description:** Small shrub growing over the ground with spreading, wiry branches to 40 cm long. Leaves are lance-shaped or oblong 3- 6 mm long. Flowers are yellow with notched petals.

Distribution: Known only from Bankstown Airport (just on the other side of the George's River from Fairfield) south of Chipping Norton Lakes.

Conservation status: Listed as critically endangered under the *BC Act* & *EPBC Act*. Not known to be in a NPWS conservation reserve. A recently discovered species.

Habitat: Occurs in sandy soils with a high silt content on Tertiary alluvium. Found in Cook's River/Castlereagh Ironbark Forest (an endangered ecological community).

Ecology: Not well known. Flowers October to December.

Threats: Only known from one site (vulnerable to changes in its environment, disease, inbreeding etc.), airport grounds maintenance and modification, future development activities and invasive weeds.

Shale Gravel Transition Forest (SGTF)



Smithfield Cemetery



Fairfield Showground

Conservation status: Endangered under state legislation. Nationally listed as critically endangered as one community with Cumberland Plain Woodland.

Description: Woodland to open-forest transitional between CPW and Castlereagh Woodland with scattered shrubs and a grassy/herb layer.

Key canopy trees: Broad-leaved Ironbark *Eucalyptus fibrosa*, Grey Box *Eucalyptus moluccana* and Spotted Gum *Corymbia maculata* in Fairfield. Paperbark *Melaleuca decora* is a dominant smaller tree.

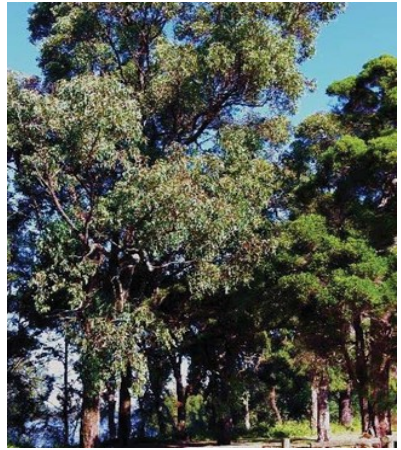
Understorey species: Native Blackthorn *Bursaria spinosa*, *Daviesia ulicifolia*, *Dillwynia sieberi*, *Lissanthe strigosa*, *Acacia falcata*, *Lomandra multiflora*, Native Flax Lily *Dianella revoluta*, Kangaroo Grass *Themeda australis* and *Eragrostis brownii*.

Distribution: Cumberland Plain where found on shallow deposits of Tertiary alluvium (Berkshire Park soil landscape) that overlie shale or patches of iron-indurated gravels within shale (e.g. Blacktown soil landscape). It grades into Castlereagh Ironbark Forest where deposits are thicker and Cumberland Plain Woodland where shale is the dominant underlying geology.

Rare species: Downy Wattle *Acacia pubescens*, Native Pear *Marsdenia viridiflora* subsp. *viridiflora*, Juniper-leaved Grevillea *Grevillea juniperina* var. *juniperina*. One record of *Pomaderris prunifolia* from Fairfield Showground.

Fairfield locations: Small isolated and often highly modified remnants. Best examples are found at Fairfield Showground, Smithfield Cemetery and highest part of Bossley Public School Reserve.

Cooks River / Castlereagh Ironbark Woodland



Northern edge of Chipping Norton Lakes →

Conservation status: Endangered at state level & critically endangered at national level.

Description: Open-forest to woodland with **canopy** dominated by Broad-leaved Ironbark *Eucalyptus fibrosa* and Paperbark *Melaleuca decora*, and sometimes Woollybutt *Eucalyptus longifolia*. Dense shrubby **understorey** with *Melaleuca nodosa*, *Daviesia ulicifolia*, *Lissanthe strigosa*, *Cryptandra spinescens*, *Lomandra multiflora*, *Dianella revoluta*, *Entolasia stricta*, *Lepidosperma laterale* and *Themeda australis*.

Distribution: Western Sydney on deeper deposits associated with higher terraces of Tertiary or Quaternary alluvium (Berkshire Park and Richmond soil landscapes) overlying shale or on patches of iron-indurated gravels. Mainly in the Castlereagh and Holsworthy areas. Can intergrade with Castlereagh Swamp Woodland in moist depressions. Difficult to distinguish from Shale Gravel Transition Forest as floristically similar, they intergrade and remaining patches are isolated and highly modified.

Rare species: Downy Wattle *Acacia pubescens*, Juniper-leaved Grevillea *Grevillea juniperina* var. *juniperina*, *Dillwynia tenuifolia*, *Pultenaea parviflora*, *Pomaderris prunifolia* and *Persoonia nutans*.

Fairfield locations: Higher parts of gently undulating topography e.g. along Victoria Street (upslope of Smithfield Cemetery) and River Avenue (Villawood railway station) or benches/terraces close to Prospect Creek and Cabramatta Creek (e.g. Lansvale between lake and Hume Highway). Often only remaining as scattered remnant trees in gardens and along roads.

Moist Shale Woodland (MSW)



Moist Shale Woodland on steep south-facing slopes at Calmsley City Farm
Hairy Clerodendrum tomentosum (top right) Wild Yellow Jasmine
Pittosporum revolutum (below right)

Conservation status: Endangered at state level and critically endangered at national level together with Western Sydney Dry Rainforest (as one community).

Description: A moist form of Cumberland Plain Woodland on shale soils.

Dominant canopy trees: Grey Box *Eucalyptus moluccana*, Forest Red Gum *E. tereticornis*, Narrow-leaved Ironbark *Eucalyptus crebra* and Spotted Gum *Corymbia maculata*.

Understorey species: Hickory Wattle *Acacia implexa*, Breyia *oblongifolia*, Hairy *Clerodendrum tomentosum* (lower photo below), Native Indigo *Indigofera australis*, Siegesbeckia *orientalis*, Kanagaroo Grass *Themeda australis* and Weeping Grass *Microlaena stipoides*.

Distribution: More rugged hilly country in southern parts of Cumberland Plain. Typically on steeper south and east-facing slopes. In Wollondilly, Liverpool, Fairfield, Camden, Campbelltown and Penrith local government areas.

Rare species: Spiked Rice-flower *Pimelea spicata*, Downy Wattle *Acacia pubescens*, Native Pear *Marsdenia viridiflora* subsp. *viridiflora* & *Cynanchum elegans*.

Fairfield locations: Abbotsbury in Western Sydney Parklands and Calmsley City Farm.

River-flat Eucalypt (RFEF)



River-flat Eucalypt Forest along Orphan School Creek at Allambie Road Reserve, Edensor Park

Conservation status: Endangered at both state & national levels. About 10% of the original extent within western Sydney remains.

Description: Includes two main forms - Riparian Woodland restricted to wettest areas along creek-lines and adjacent swampy areas dominated by Swamp Oak *Casuarina glauca* and Cabbage Gum *Eucalyptus amplifolia*. Groundcover with moist-loving and wetland herbs, sedges & grasses. Alluvial Woodland usually occurs in slightly drier habitat with *Eucalyptus amplifolia*, Forest Red Gum *E. tereticornis*, *Angophora floribunda* & *A. subvelutina*, and in Fairfield, Blue Box *Eucalyptus baueriana*.

Smaller trees: *Melaleuca* species & *Acacia parramattensis*.

Understorey species: Native Blackthorn *Bursaria spinosa* with grassy ground layer of *Microlaena stipoides*, *Juncus usitatus*, *Oplismenus aemulus*, *Entolasia marginata* & *Echinopogon ovatus*. Herbs: *Plectranthus parviflorus*, *Alternanthera denticulata*, *Persicaria* spp., & *Pratia purpurascens*. Climbers /twiners: *Glycine* species and *Clematis glycinoides*.

Distribution: Widely distributed on coastal floodplains. Within western Sydney occurs along creek banks and floodplains of the Cumberland Plain.

Rare species: Native Pear *Marsdenia viridiflora* subsp. *viridiflora* & regionally or significant Pygmy Panic *Panicum pygmaeum*.

Fairfield example locations: Western Sydney Parklands, Prospect Creek, Orphan School Creek, Cabramatta Creek, Georges River, Reedy Creek, Green Valley Creek.

Freshwater Wetlands of Coastal Floodplains



Freshwater Wetlands & Swamp Oak Forest at Chipping Norton Lake

Conservation status: Endangered at state level (BC Act).

Description: Freshwater wetlands occur on land where soils are waterlogged permanently, seasonally or ephemerally and support vegetation dominated by sedges, rushes, reeds and wet-loving herbs. There is often a mosaic of vegetation units related to changes in water depth and periods of inundation.

Open-water – Tall Spike-rush *Eleocharis sphacelata*, Water Primrose *Ludwigia peploides* ssp. *montevidensis*, Water Ribbons *Triglochin procera*, Water-milfoil *Myriophyllum variifolium*.

Reedland – Bulrush *Typha* species, Common Reed *Phragmites australis*.

Sedgeland/herbland - *Juncus usitatus*, *Cyperus* spp, *Carex appressa*, *Schoenoplectus validus*, *Isachne globosa*, *Paspalum distichum*, *Ranunculus inundatus*, *Pericaria* species, *Alternanthera denticulata*, *Hydrocotyle peduncularis*.

Distribution: Widely distributed on coastal floodplains but restricted in extent in western Sydney. Extensively cleared and modified (e.g. drained to prevent flooding).

Rare species: No listed species but regionally significant wetland species e.g. Leafy Twig-rush *Cladium procerum* & Tassel Sedge *Carex fascicularis*.

Fairfield locations: De Freitas Wetland (Prospect Creek), Osmond Reserve (Cabramatta Creek) and Chipping Norton Lakes (Georges River). Many of the sites have been extensively rehabilitated or re-created (e.g. Chipping Norton Lakes).

Swamp Oak Floodplain Forest (SOFF)



Conservation status: Endangered at state level (BC Act)

Description: Swampy areas with an estuarine influence dominated by Swamp Oak *Casuarina glauca*. **Smaller trees** may include *Melaleuca* (Paperbarks), Lilly pillly (*Acmena smithii*) and Cheese Tree (*Glochidion ferdinandi*). The understorey is sparse with low species richness. **Groundcover** with moist- loving and wetland herbs, sedges, grasses, ferns & vines e.g. *Juncus kraussii*, *Carex appressa*, *Gahnia clarkei*, *Lomandra longifolia*, *Commelina cyanea*, *Persicaria* species, *Alternanthera denticulata*, *Phragmites australis*, *Hypolepis muelleri*, *Stephania japonica* var. *discolor* and *Parsonsia straminea*.

Distribution: Widely distributed on coastal floodplains and saline or sub- saline soils. Restricted to eastern parts of the Cumberland Plain along the Georges River and potentially lower parts of Cabramatta and Prospect Creeks where tidal influence. Often associated with mangroves (Grey Mangrove *Avicennia marina* and River Mangrove *Aegiceras corniculatum*).

Fairfield example locations: Chipping Norton Lakes e.g. south-west of Howard Street. Most of this Swamp Oak Floodplain Forest has been created following the cessation of sand and gravel mining. The original extent of the community at this site is unknown but is likely to have been relatively small.

Marsdenia viridiflora subsp. viridiflora Native Pear

Family: APOCYNACEAE **Habit:** Woody twining shrub with potato-like tubers and stems to 4 m long that exude a milky sap, growing over shrubs or along the ground. **Leaves** are narrow, 2-12 cm long, 2-18 mm wide, broader towards base, thick, mid-vein is prominent, 1-5 minute glands present at base of leaf. **Flowers** are greenish or yellow 3-4 mm diam. with five spreading lobes, bell-shaped, several together in a cluster.

Fruit: Large pear-shaped, 4-8 cm long, to 3.5 cm wide, smooth, splitting to release plumed seeds.

Flowers: Nov to Dec. with fruit mature in autumn.

Habitat: Woodland on gravelly clay soils or in vine thickets, close to creeks or in open, exposed sites.

Distribution: Central and southern parts of western Sydney. Occurs in Cumberland Plain Woodland, Moist Shale Woodland, River-flat Eucalypt Forest and Western Sydney Dry Rainforest.

Conservation status: It is listed as an endangered population under the BC Act in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool & Penrith local government areas.

Fairfield locations: Sartor Crescent Reserve, Allambie Road Reserve (Edensor Park), Wylde Park, Greenfield Park, Elouera Bushland Reserve, Tasman Parade Reserve, Curran Street Reserve, Fairfield Showground.



Pomaderris prunifolia Plum-leaf Pomaderris

Family RHAMNACEAE

Habit: Shrub 1-3 m high; stems with rusty star-shaped hairs. **Leaves** 2-4 cm long, 8-15 mm wide, margins obscurely toothed, upper surface wrinkled with short rough hairs, lower surface paler with dense star-shaped hairs. **Flowers** are small, yellowish in small clusters, petals absent. **Fruit** a small capsule with long rusty hairs.

Flowering: August to October, buds held for several months before flowering.

Habitat: Open- forest on clay or sandy loam soils sometimes associated with rocky outcrops or gravels often in transitional environments (e.g. shale/sandstone or shale/tertiary alluvium).

Distribution: Rare, only a few remaining sites –along a roadside reserve at Rydalmere and one site at Fairfield. It is likely extinct now from Bankstown and Flemington. Recorded from Cumberland Plain Woodland, Castlereagh Ironbark Forest/Shale Gravel Transition Forest & Shale Sandstone Transition Forest.

Conservation status: It is listed as an endangered population under the BC Act in the Parramatta, Auburn, Strathfield & Bankstown local government areas.

Notes: Threats include clearing, roadside construction and maintenance, weed invasion and small population size.

Fairfield locations: One site at Fairfield Showground.



Cynanchum elegans White-flowered Wax Plant

Family APOCYNACEAE

Habit: Woody climber or twiner with stems becoming corky, watery latex exuded when cut. **Leaves** are broader near base and abruptly tapered at tip, 1.5-5.5 cm long, to 25 mm wide, mostly hairless, 2 small glands at base; leaf stalks 5-25 mm long. **Flowers** are white c. 5 mm long, 10-12 mm diam., 5-lobed, few in a cluster.

Fruit: Large follicle, 6-7 cm long splitting to release seeds with silky hair tuft.

Flowers: Warmer months.

Habitat: Edge of dry rainforest & in moist woodland on richer soils.

Distribution: Calmsley City Farm, Cobitty, Kurrajong.

Conservation status: Listed as an endangered species at state and national levels. Occurs in Western Sydney Dry Rainforest, Moist Shale Woodland and River-flat Eucalypt Forest.

Notes: Can re-sprout after occasional slashing or grazing. It is easily confused with the exotic Moth Vine (*Araujia sericiflora*) but latter has dense short white hairs on lower surface of leaves.



Photo:
Peter Ridgeway
(2 close-ups)

Pimelea spicata Rice-flower

Family THYMELAEACEAE **Description:** A small, slender shrub to c. 50 cm high with opposite leaves 5-20 mm long. **Flowers** small, tubular with 4 spreading lobes, white to pinkish in terminal spikes. It is distinguished from other local species by absence of conspicuous bracts below flower head, pinkish-white flowers and hairless stems and leaves.

Distribution: Main occurrence on the Cumberland Plain in Blacktown, Holroyd, Fairfield and Liverpool. It has appeared in several council reserves in Blacktown where no-mow zones have been established.

Conservation status: Listed as an endangered species under the BC Act & EPBC Act.

Habitat: Occurs on shale in Cumberland Plain Woodland and Moist Shale Woodland.

Ecology: Flowers Dec-Feb although mostly in response to rain. Can re-sprout or establish from seed.

Threats: Clearing, physical disturbance (e.g. mowing & grazing), habitat degradation, herbicides and inappropriate fire regimes.

Fairfield locations: Older records from Wetherill Park, Horsley Park & Mt. Pritchard. Recently confirmed from Cobham Street Road Reserve at Horsley Park.



Disturbed Cumberland Plain Woodland habitat along unformed section of Cobham Road where recently found (above). Plants were confined to small patches of native dominated ground cover.



Persoonia nutans Nodding Geebung

Family PROTEAECAE

Description: An erect to spreading shrub mostly to 1 m high with sparse, narrow leaves 1-3 cm long, 1-2 mm wide. **Flowers** yellow held on pendulous stalks; fruit a greenish fleshy drupe. Flowers summer.

Distribution: Found in Castlereagh Woodlands on Tertiary alluvium with its main occurrence on the Cumberland Plain in the Castlereagh – Berkshire Park districts but with a number of outlier populations e.g. in Liverpool.

Conservation status: Listed as an endangered species under the BC Act & EPBC Act.

Fairfield locations: One old record from Old Guildlford near Yennora. Likely to now be extinct in Fairfield.



Photo: Jaimie Plaza
RGB Sydney

Pultenaea pedunculata Matted Pea-bush

Family PROTEAECAE



Description: Low-growing shrub often forming mats. **Leaves** narrow to 11 mm long, shortly pointed, paler below; conspicuous brown stipules at base of leaves. Orange yellow & red pea flowers in spring to early summer.

Distribution: On shale (where ironstone gravels) and transitional soils associated with Tertiary alluvium or sandstone. Southern parts of the Cumberland Plain e.g. Liverpool & Appin.

Conservation status: Listed as an endangered species under BC Act.

Fairfield locations: No known records but potential to occur in Fairfield particularly in Cooks River Castlereagh Ironbark Forest. It is known to occur on the eastern side of Woodville Road and just to the north in Holroyd along the Lower Canal.

VULNERABLE FLORA

Acacia pubescens Downy Wattle

Family Fabaceae **Description:** A spreading shrub 1-4 m high. Leaves are finely divided; leaves and branches finely hairy. **Flowers** bright yellow, in round heads arranged in a raceme, August to October.

Distribution: Mostly on the Cumberland Plain, also Auburn to Bankstown, Strathfield, Canterbury to Sutherland.

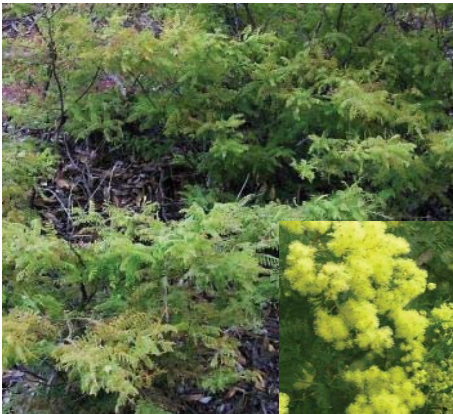
Conservation status: Listed as vulnerable under both state and national legislation. Only known to be protected within Scheyville National Park.

Habitat: On shale or shale/sandstone or shale/Tertiary alluvium transition. The soils are often gravelly or with ironstone gravels. Found in open woodland or forest in Cumberland Plain Woodland, Shale Gravel Transition Forest, Castlereagh Woodlands and rarely in Shale/Sandstone Transition Forest.

Ecology: A clonal species that can re-sprout from root suckers. The seed can survive for 50+ years in the soil.

Threats: Habitat loss, habitat degradation, disease and hybridization with other *Acacia* species e.g. the frequently cultivated Cootamundra Wattle.

Fairfield locations: Several sites including Bossley Public School Reserve, Western Sydney Parklands, Fairfield Flora Park, Villawood Railway Station, Smithfield Cemetery & Prospect Reservoir.



REGIONALLY SIGNIFICANT PLANT SPECIES

Many plant species although not threatened with extinction are nevertheless significant within a western Sydney context at a regional or local level. Some examples are provided.

Sicyos australis

Family: CUCURBITACEAE

Description: Climbing or trailing herb with branched tendrils. **Leaves** large, 3-5 lobed, bristly. **Flowers** whitish, c. 3 mm long, several flowers together on distinct stalks. **Fruit** ovoid, 7-12 mm long, green, softly bristly.

Flowers: Summer.

Habitat: At edge of rainforest in range of soils.

Distribution: Rare in or near rainforest.

Conservation status: Rare, regionally significant in western Sydney.

Fairfield locations: Calmsley City Farm, Abbotsbury.



Eucalyptus baueriana Blue Box

Family: MYRTACEAE

Description: Tree to 20 m tall. Bark rough, persistent, box-type. **Adult leaves** ovate to c. 10 cm long and to 5 cm wide, green or bluish. **Flowers** in terminal panicles; buds 7, club or diamond-shaped; capsules cone-shaped to 7 mm long, valves 3 or 4 enclosed.

Habitat: Alluvial soils on floodplains.

Distribution: Restricted to southern & far western Cumberland Plain.

Conservation status: Regionally significant.






Fairfield locations: Lower parts of Orphan School Creek, Prospect Creek & Cabramatta Creek e.g. Irelands Bridge Reserve, Fairfield Park, Chipping Norton Lakes.



Top photo:
Shane Stephenson

Table 3: Other regionally & locally significant plant species

Plant Name	Fairfield Locations/Notes	Photograph
<i>Acacia terminalis</i> Sunshine Wattle	Lansvale - Riverside Road, Lansvale East Primary School. Unusual occurrence of a sandstone species near Georges River. Other sandstone species also found: <i>Persoonia linearis</i> , <i>Phebalium squamulosum</i> , <i>Acacia ulicifolia</i>	
<i>Cladium procerum</i> Leafy Twig Rush	Chipping Norton Lakes & Cabramatta Creek Flying Fox Colony. A large sedge in swamps, often brackish. Now rare due to loss of habitat. Photo: Helen Pollard	
<i>Cryptandra spinescens</i> Spiny Cryptandra	Villawood Railway Reserve, Tasman Parade Reserve & Richards Road Reserve. Small shrub with spinescent branches and small tubular flowers. Found on gravelly soils in Castlereagh Ironbark Forest and Shale Gravel Transition Forest.	
<i>Eucalyptus beyeriana</i> Beyer's Ironbark	Bossley Public School Reserve & Wetherill Park Reserve. Unusual occurrence, more typically found near northern and western margins of Cumberland Plain. Associated with gravelly or sandy soils.	
<i>Eucalyptus bosistoana</i> Bosisto's Box	Fairfield Park, Fairfield City Farm Green Valley Creek, St Johns Park, Irelands Bridge Reserve. Found on creek flat sand floodplains, now rare Photo: Fairfield City Council	

Plant Name	Fairfield Locations/Notes	Photograph
<i>Hybanthus stellarioides</i> Orange Spade Flower	Fairfield Flora Park Short-leaved herb with orange or yellow spade-shaped flowers, rare in Cumberland Plain Woodland	
<i>Lotus australis</i> Australian Trefoil	Horsley Park including recent record from corner Chandos and Ferrers Road, Horsley Park, Prospect Reservoir. Small herb with pink or white flowers found in moist sites of Cumberland Plain Woodland	
<i>Pultenaea microphylla</i>	Horsley Park including recent record corner Chandos & Ferrers Road, Horsley Park, Prospect Reservoir, Bossley Public School Reserve A shrub found in Cumberland Plain Woodland and Shale Gravel Transition Forest	
<i>Scutellaria humilis</i> Dwarf Skullcap	Horsley Park Corridor, Calmsley City Farm. Small herb rare in moister sites of Cumberland Plain Woodland and Moist Shale Woodland. Photo: Greg Steenbeeke	
<i>Senna barronfieldii</i> (<i>Senna odorata</i>)	Fairfield Showground Corner Mistral Street and Greenfield Road, Greenfield Park A rare shrub in western Sydney occurring in river-flat forest and near rainforest.	

Useful References

- Native Flora of Cumberland Plain Woodland – An Identification Guide, Teresa James, 2013 [contact t.james@optusnet.com.au]
- Cumberland Plain Woodland Species for your Garden (2005), Blacktown and District Environmental Group.
- Key to the Grasses of Sydney (2002), Van Klaphake.
- Key to the Commoner Species of Sedges and Rushes of Sydney and the Blue Mountains (2004), Van Klaphake.
- Eucalypts of the Sydney Region (2009), Van Klaphake.
- Rare Bushland Plants of Western Sydney (1999), T. A. James, L. McDougall & D.H. Benson. Royal Botanic Gardens, Sydney.
- Field Guide to the Native Plants of Sydney (1997) Revised Edition. L. Robinson (Kangaroo Press: Kenthurst).
- NSW Flora Online <http://plantnet.rbgsyd.nsw.gov.au/>
- Native Plants of the Sydney District: an identification guide (1989). A. Fairley & P. Moore (Kangaroo Press: Kenthurst).
- Taken for Granted: the bushland of Sydney and its suburbs (1990). D. H. Benson & L. McDougall. Kangaroo Press and Royal Botanic Gardens.
- NSW Office of Environment and Heritage
www.environment.nsw.gov.au/threatenedspecies/
- Mt. Annan Botanic Garden – Ecology of Cumberland Plain Woodland
www.rbgsyd.nsw.gov.au/science/Evolutionary_Ecology_Research/Ecology_of_Cumberland_Plain_Woodland