

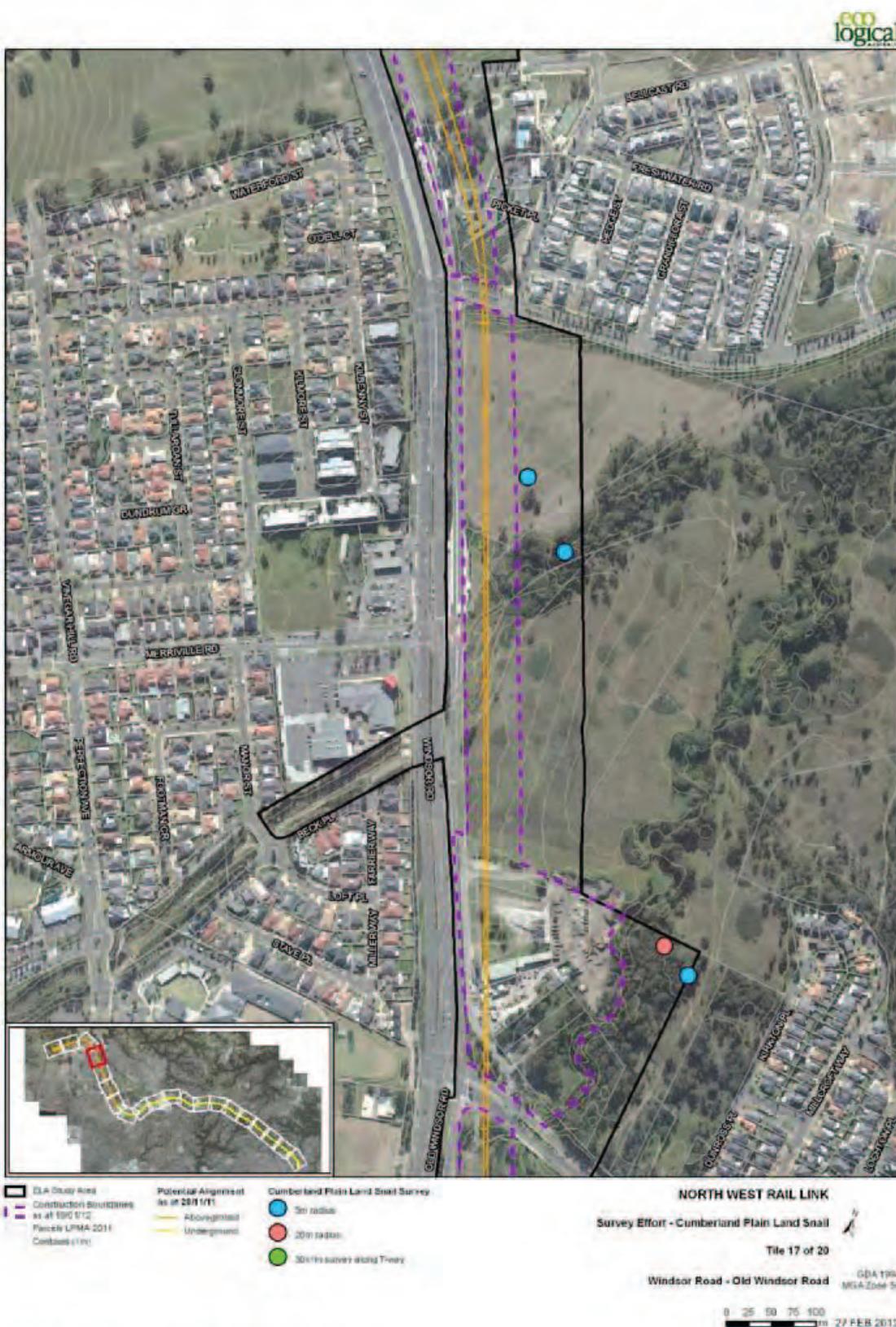
Appendix F Cumberland Plain Land Snail Survey Maps



Balmoral Road - Cumberland Plain Land Snail



Kellyville - Cumberland Plain Land Snail



Windsor Rd - Cumberland Plain Land Snail



First Ponds - Cumberland Plain Land Snail

Appendix G Green & Golden Bell Frog Survey Results

G.1 Survey Site Selection

A Green and Golden Bell Frog (GGBF) site / habitat suitability assessment was undertaken on 18th November 2011. This assessment endeavoured to confirm the presence of suitable GGBF habitat and to rank the habitat quality and map the extent of habitat at the various sites. Primary and secondary habitat is identified in the GGBF habitat maps (see Appendix H).

This preliminary site assessment included a desktop assessment of known GGBF records from the surrounding areas and a recent aerial photo analysis, as well as an on-ground assessment of habitat features. Potential for connectivity with the nearest GGBF population was also taken into account in determining the prioritisation of potential habitat areas for survey.

Whilst suitable potential foraging habitat was found across all areas of the proposed NWRL corridor, only certain sections had suitable permanent water bodies that were considered suitable as potential breeding habitat, and which also had suitable shelter/foraging habitat. Some of these better habitat areas also possessed, in some instances, additional potential ephemeral breeding habitat. These areas were targeted during field surveys and identified in the survey effort maps (Appendix H).

G.2 Field Surveys

Each of the land parcels identified as priority sites for targeted GGBF investigation were individually surveyed using the full suite of survey techniques documented as the preferred survey methodologies for GGBF (NPWS 2003b, DEWHA 2009). Methods included diurnal searches scanning for basking individuals amongst emergent vegetation, searches beneath ground cover for sheltering individuals, as well as dip-netting to detect and identify any tadpoles or fish present. Call imitation was also selectively applied diurnally in an endeavour to elicit a call response from basking, but otherwise undetected, males. Nocturnal searches of the same habitat areas were also undertaken. This included using spotlights and headlamps to scan potential habitat areas for active and foraging individuals, frog auditory survey for calling males, recorded call playback to attempt to elicit a response from non-calling males as well as call imitation for the same purpose.

The application of the above survey methodology was timed to occur within the species' preferred activity period (August to March, NPWS 2003b; DEWHA 2009), as well as timed within this period to occur during suitable climatic conditions (warm to hot temperatures following or during rain events, NPWS 2003b; DEWHA 2009). The survey methodology was repeated over four nights in accordance with DEWHA (2009) survey guidelines. The preferred survey periodicity of four consecutive nights was varied in this instance due to cold nocturnal temperatures (11 °C) experienced on the third survey night and the forecast for high temperatures and substantial rain several days later, which eventuated.

The rationale behind the recommended GGBF survey guidelines (NPWS, 2002; DEWHA 2009) is to endeavour to time surveys to intersect temporally with the GGBF activity period and the breeding activity component of the species' lifecycle when it is most detectable, and when dispersed individuals are more likely to congregate. Furthermore, GGBF tadpoles are quite distinctive and, following spawning, are likely to be present, and therefore detectable, for a substantial period (approximately 12 weeks) when adults may be dispersed and / or absent. Metamorphlings are also likely to remain in the

vicinity of the breeding pond and surrounds for a period after metamorphosis (Pers. Obs. R. Wellington). A further test of this rationale was applied during this survey by undertaking two visits to the nearest GGBF reference site at Riverstone (3 km away in the First Ponds Creek sub-catchment). Both of these visits revealed that GGBF were active and calling the day/night before the current surveys were undertaken, indicating the likely detectability of GGBF at the subject survey sites if present.

Field Survey Results

Surveys of the identified priority habitat areas revealed *Litoria fallax* (Dwarf Green-Tree Frogs) present diurnally from intermittent calls and from a few individuals observed basking. Searches of habitat that included ground cover, where present, around each of the habitat areas revealed *Litoria peronii* (Brown Tree Frogs), and *Limnodynastes peronii* (Brown Striped Marsh Frog). Intermittent diurnal calls revealed *Limnodynastes tasmaniensis* (Spotted Marsh Frogs), *Litoria dentata* (Bleating Tree Frogs), and *Crinia signifera* (Brown Toadlets). Dip netting for tadpoles detected three species of frogs; *Litoria peronii* (Brown Tree Frog), *Limnodynastes peronii* (Brown Striped Marsh Frogs), and Spotted Marsh Frog. Dip netting and diurnal survey of water bodies also revealed the presence of exotic fish and fresh water eels, with Common Carp and Koi Carp varieties of *Cyprinus carpio* being detected in water bodies on properties within First Ponds Creek drainage (Schofields Road sites) and Plague Minnow *Gambusia holbrooki* in water bodies within the Caddies Creek drainage (Windsor Road sites). *Anguilla cf australis* (Freshwater Eels) were visually detected in both sub-catchments. Nocturnal surveys revealed all of the above species, as well as *Litoria verreauxii* (Whirring Tree Frogs) (on the third coolest survey night), *Litoria tyleri* (Tyler's Brown Tree Frog), and the *Uperoleia fusca* (Dusky Brown Toadlet), by call during/following heavy rain, but also visually verified by triangulated capture method. No other frog species or their tadpoles were detected during the diurnal and nocturnal searches of the targeted habitat areas. The results of the field survey are summarised in section 3.3.3.

As the priority sites along the NWRL corridor are not known to have any GGBF records, a single replicate of the GGBF survey guideline methodology (DEWHA 2009; NPWS 2003b) was undertaken, as the more onerous recommended replication of survey effort is only considered necessary in known locations of GGBF records.

Table 28: Green & Golden Bell Frog Survey Results

SURVEY SITE	ADDRESS & CO-ORDINATES	DIURNAL SURVEY EFFORTS			NOCTURNAL SURVEY EFFORTS		
		DATE / TIME	RESULTS	DATE / TIME	RESULTS	DATE / TIME	RESULTS
Tallawong Road to Firth Ponds Creek (Tile 20)	57 Schofields Rd, Rouse Hill 33 41'44.00"S; 150 53'53.86"E	21/11/2011 Start 1630 Finish 1650	No frogs were observed or heard calling. Incidental Observations – <i>Lampropholis delicata</i> , <i>Lampropholis guichenoti</i> ; <i>Chelodina longicollis</i>	21/11/2011 Start 2045 Finish 2115	Auditory Survey and Spotlight/Headlamp search detected: <i>Litoria fallax</i> – 15+; <i>Litoria peronii</i> – 6+; <i>Litoria tyleri</i> – 1; <i>Crinia signifera</i> – 2; <i>Limnodynastes peronii</i> – 5 No other frogs were detected from visual observations, searching of ground cover or from call imitation/call playback.		
	22/11/2011 Start 1445 Finish 1515	No frogs or tadpoles were detected		22/11/2011 Start 2030 Finish 2100	<i>Litoria peronii</i> 4+; <i>Litoria fallax</i> 1; <i>Crinia signifera</i> 1;		
	23/11/2011 Start 1520 Finish 1550	<i>Crinia signifera</i> calling Incidental Observations: <i>Lampropholis delicata</i> , <i>Eulamprus quoyii</i> , Welcome Swallow, Red-rumped Grass Parrot, Australian Raven, Little Grebe, Black Duck, Dusky Moorhen, Chestnut Teal, Masked Lapwing, Sulphur-crested Cockatoo, Indian Myna		23/11/2011 Start 2015 Finish 2040	<i>Crinia signifera</i> 9; <i>Litoria fallax</i> 2 (called in response to disturbance only)		
	29/11/2011 Start 1540 Finish 1610	<i>Limnodynastes peronii</i> ; <i>Litoria peronii</i> (calling and tadpoles) Incidental Observations: Chestnut Teal, Pee Wee, Channel-billed Cuckoo, Red-rumped Grass Parrot, Indian Myna, Starling		29/11/2011 Start 2015 Finish 2045	<i>Litoria fallax</i> 12+; <i>Litoria peronii</i> 8; <i>Limnodynastes peronii</i> 6; <i>Crinia signifera</i> 5		
	21/11/2011 Start 1650 Finish 1715 Southern habitat area	No frogs observed but two unidentified tadpoles (single species) were collected. No other frogs were detected from visual observations, searching of ground cover or from call imitation Incidental Observations: Koi Carp <i>Cyprinus carpio</i>		21/11/2011 Start 2115 Finish 2145	<i>Litoria peronii</i> 6+ calling and an amplexing pair observed and 1 active male observed; <i>Litoria fallax</i> 8+ calling and observed by spotlight. No other frogs were detected from visual observations, searching of ground cover or from call imitation/call playback.		
	21/11/2011 Start 1720 Finish 1745 Northern ephemeral habitat area 0305094; 6269869 GDA 94 Z 56	<i>Litoria dentata</i> heard calling, two tadpole specimens collected, one tadpole was of the Brown Striped Marsh Frog <i>Limnodynastes peronii</i> , the other <i>Limnodynastes tasmaniensis</i> . No other frogs were detected from visual observations, searching of ground cover or call imitation.					
	22/11/2011 Start 1515 Finish 1545	No Frogs or tadpoles detected Incidental Observations: <i>Koi</i> Carp <i>Cyprinus carpio</i> ; <i>Lampropholis delicata</i> ; <i>Rattus rattus</i>		22/11/2011 Start 2100 Finish 2130	<i>Litoria peronii</i> 5+; <i>Litoria fallax</i> 5;		
	23/11/2011 Start 1600 Finish 1630	<i>Limnodynastes peronii</i> tadpoles) Incidental Observations: <i>Eulamprus quoyii</i> , <i>Tiliqua scincoides</i> , <i>Lampropholis delicata</i> , <i>Lampropholis guichenoti</i> , Koi Carp, Magpie, Kookaburra, Double-barred Finch, Black-faced Cuckoo-shrike, Common Bronzewing Pigeon, Pee Wee, Masked Lapwing, Restless Flycatcher, Superb Blue Wren,		23/11/2011 Start 2040 Finish 2100	<i>Limnodynastes peronii</i> 8; <i>Uperoleia fusca</i> 3; <i>Litoria peronii</i> 3; <i>Crinia signifera</i> 6; <i>Litoria dentata</i> 6+ (at a distance from the site) Incidental Observations: Barn Owl <i>Tyto alba</i>		

SURVEY SITE	ADDRESS & CO-ORDINATES	DIURNAL SURVEY EFFORTS				NOCTURNAL SURVEY EFFORTS			
		DATE / TIME	RESULTS	DATE / TIME	RESULTS	DATE / TIME	RESULTS	DATE / TIME	RESULTS
		House Sparrow, Starling							
		Litoria fallax, Limnodynastes peronii (Juvenile and tadpoles)							
		Incidental Observations: <i>Lampropholis delicata</i> , <i>Tiliqua scincoides</i> , Little Corella, Indian Mynah, Common Carp <i>Cyprinus carpio</i> , Magpie, Indian Turtle Dove, House Sparrow, Starling		29/11/2011 Start 2045 Finish 2115	Litoria peronii 5+; <i>Litoria fallax</i> 8; <i>Litoria dentata</i> 3; <i>Uperoleia fusca</i> 2;				
61 Schofields Rd, Rouse Hill 33 41'42.17"S; 150 53'58.11"E	29/11/2011 Start 1610 Finish 1650	Litoria fallax calling; <i>Crinia signifera</i> calling, no other frogs were detected from visual observations, searching of ground cover or from call imitation.		21/11/2011 Start 2145 Finish 2205	Litoria fallax - 8; <i>Litoria peronii</i> - 4 detected calling. No other frogs were detected from visual observations using spotlight/headlamp or from call imitation/call playback.				
	21/11/2011 Start 1745 Finish 1805	Incidental Observations: Common Carp <i>Cyprinus carpio</i> 'Fry' collected during dip-netting and dead adults observed in dried out ephemeral overflow depression; Freshwater Eel <i>Anguilla cf. australis</i> .							
	22/11/2011 Start 1545 Finish 1610	No frogs or tadpoles detected		22/11/2011 Start 2130 Finish 2200					
		Incidental Observations: Koi Carp and Common Carp <i>Cyprinus carpio</i> ;							
	23/11/2011 Start 1730 Finish 1800	<i>Crinia signifera</i> , <i>Limnodynastes peronii</i>		23/11/2011 Start 2100 Finish 2120					
		Incidental Observations: <i>Lampropholis delicata</i> , Red-whiskered Bul Bul, Black-faced Cuckoo-shrike, Magpie, Brown Wood Swallow, White-napped Honeyeater, Channel-billed Cuckoo							
	29/11/2011 Start 1700 Finish 1730	<i>Crinia signifera</i>		29/11/2011 Start 2115 Finish 2130					
		Incidental Observations: Common Carp (fry) and Koi (adult) <i>Cyprinus carpio</i> , Black-faced Cuckoo Shrike, House Sparrow, Restless Flycatcher, Red-whiskered Bul Bul, White-naped Honeyeater, Magpie, Superb Blue-wren, Cuckoo							
68 Schofields Rd, Rouse Hill 33 41'41.56"S; 150 54'10.54"E	21/11/2011 Start 1810 Finish 1830 – main dam; Start 1830 Finish 1845 - Typha pond	Tadpoles of <i>Litoria peronii</i> were collected during dipnetting in main dam. No other frogs were detected from visual observations, searching of ground cover or from call imitation around main dam. <i>Limnodynastes peronii</i> was detected from calls throughout the Typha pond but no other frogs were detected from visual observations, searching of ground cover or from call imitation around the Typha pond.		21/11/2011 Start 2210 Finish 2240 AEDST	Litoria fallax 30+; <i>Litoria peronii</i> 15+; <i>Limnodynastes peronii</i> 15+ calling from sullage pond with Typha on property boundary; <i>Litoria tyleri</i> 2; <i>Litoria verreauxii</i> 1;				
	22/11/2011 Start 1615 Finish 1645	Incidental Observations: Eastern Water Skink <i>Eulamprus quoyii</i> , <i>Lampropholis delicata</i>							
	23/11/2011 Start 1800 Finish 1830	Litoria peronii tadpoles collected; <i>Litoria fallax</i> calling		22/11/2011 Start 2200 Finish 2230	Litoria peronii 8; <i>Litoria verreauxii</i> 1; <i>Limnodynastes peronii</i> 8+; <i>Limnodynastes tasmaniensis</i> 1'; <i>Litoria fallax</i> 10+; <i>Limnodynastes peronii</i> foamy eggmass detected.				
		<i>Crinia signifera</i> , <i>Limnodynastes peronii</i> (calling) and metamorphling captured, <i>Limnodynastes tasmaniensis</i> , <i>Litoria dentata</i>		23/11/2011 Start 2120 Finish 2140	Litoria peronii 2; <i>Crinia signifera</i> 6; <i>Limnodynastes peronii</i> 8; <i>Limnodynastes tasmaniensis</i> 3; <i>Litoria verreauxii</i> 1				

SURVEY SITE	ADDRESS & CO-ORDINATES	DIURNAL SURVEY EFFORTS		NOCTURNAL SURVEY EFFORTS	
		DATE / TIME	RESULTS	DATE / TIME	RESULTS
		Incidental Observations: Red-rumped Grass Parrot, Magpie, Black-faced Cuckoo-shrike, White-napped Honeyeater, Red Wattle Bird, Reed Warbler, Welcome Swallow, Silver Eye, Red-browed Finch, Starling, Rabbit			
		<i>Litoria fallax</i> ; <i>Limnodynastes peronii</i> ; <i>Litoria peronii</i> (tadpoles)	29/11/2011 Start 1730 Finish 1800	<i>Litoria peronii</i> 15; <i>Litoria fallax</i> 20+; <i>Limnodynastes peronii</i> 30+	<i>Cninia signifera</i> 1;
		Incidental Observations: <i>Eulamprus quoyii</i> 3; <i>Pseudechis porphyriacus</i> ; Dusky Moorhen, Australian Raven; Reed Warbler	29/11/2011 Start 2130 Finish 2155		
		<i>Cninia signifera</i> calling; <i>Litoria fallax</i> calling; <i>Limnodynastes peronii</i> calling from drain leading to ox-bow.	22/11/2011 Start 1655 Finish 1720	<i>Cninia signifera</i> 6; <i>Litoria fallax</i> 6	
		Incidental Observations: Plague Minnow <i>Gambusia holbrooki</i> detected by dip netting and visually.	23/11/2011 Start 1840 Finish 1900	<i>Cninia signifera</i> 2	
		<i>Cninia signifera</i> calling; <i>Limnodynastes peronii</i> calling	23/11/2011 Start 2240 Finish 2300		
		Incidental Observations: Plague Minnow <i>Gambusia holbrooki</i> (fry), <i>Lampropholis delicata</i> , Large Black Cormorant, Little-pied Cormorant, Red-rumped Grass Parrot, Starlings	23/11/2011 Start 2155 – 2220		
		No frogs or tadpoles detected			
		Incidental Observations: Plague Minnow <i>Gambusia holbrooki</i> ; Red-rumped Grass parrots, Starlings, Indian Mynah	29/11/2011 Start 2210 Finish 2230	<i>Cninia signifera</i> 6; <i>Limnodynastes peronii</i> 5; <i>Litoria fallax</i> 6	
		<i>Cninia signifera</i> calling; no other frogs or tadpoles detected.			
		Incidental Observations: Plague Minnow <i>Gambusia holbrooki</i> detected by dip netting and visually.	22/11/2011 Start 1725 Finish 1745	<i>Cninia signifera</i> 2; No other frogs detected.	
		No frogs or tadpoles detected	22/11/2011 Start 2305 Finish 2325		
		<i>Cninia signifera</i>			
		Incidental Observations: Plague Minnow <i>Gambusia holbrooki</i> ; Rainbow Lorikeets, Little Corella, Galah, Magpie, Eastern Rosella	23/11/2011 Start 2230 Finish 2250	<i>Cninia signifera</i> 1; <i>Litoria vereauxii</i> 1 (calling at a distance)	
		<i>Cninia signifera</i> , <i>Litoria dentata</i> ,			
		Site totally unsuitable for GGBF. Forest vegetation with warm temperate rainforest understorey species in heavily shaded gully. Creek with high flow velocity. Veracity of previous GGBF record from vicinity of this site is highly questionable. The site does not warrant any further survey effort for this species and no additional effort was applied.	29/11/2011 Start 2235 Finish 2300	<i>Cninia signifera</i> 5; <i>Litoria fallax</i> 2;	
		Devlin's Creek 33°45'42.19"S; 150°40'20.93"E	Start 1815 Finish 1830		
		Cheltenham (Title 2)			

G.3 Comments

The Riverstone East Precinct of the NWGC is the nearest and most recent sighting of GGBF records, (approximately 3 km from the Schofields Road sites of the NWRL corridor). Drainage from the western-most sections of the NWRL corridor is part of the First Ponds Creek sub-catchment of Eastern Creek, which drains to the north-west through Riverstone to Eastern Creek. The identified Riverstone GGBF element of the Western Sydney GGBF Key Population was identified in the Draft GGBF Recovery Plan (NPWS 2003b) however no regional key population management plan has, as yet, been prepared for this key population though actioned under the Draft GGBF Recovery Plan and Priority Action Statement (PAS) for the species.

One component of the 'biocertification' process was to undertake rigorous targeted GGBF surveys within a specified area at Riverstone (Eco Logical Australia, 2007). This study confirmed the presence of GGBF at Riverstone, and validated all the previous observations in that locality. The study found that GGBF were concentrated at a single location at Riverstone, where a semi-captive colony exists. It also concluded that additional GGBF records from the immediate vicinity were likely emanating from the focal distribution point. Specimens observed were considered likely dispersing individuals and the study triggered additional follow up surveys at other historical western Sydney GGBF sites but the GGBF failed to be redetected (Jurd, 2008).

Consequently there is a desire, as expressed in the Recovery Plan, as well as in each of the nine subsidiary Key Population Management Plans (DECC 2007; 2008), that habitat creation, retention and rehabilitation are desirable outcomes where the GGBF is recorded or known from nearby. Nevertheless there are no known GGBF records in recent times (after 1975) from the immediate proximity of the NWRL study site. However, it is impossible to rule out the possibility of GGBF moving to or from or through the subject corridor lands from time to time but the potential habitat on site is unremarkable. The most suitable areas of habitat observed are artificial human constructed earth walled dams along existing ephemeral/intermittent drainages or modified ox-bows and constructed detention basins. These structures have become vegetated to varying extents with fringing emergent *Typha*, *Juncus*, *Cyperus* and *Eleocharis* spp. that are recognised for their values to the GGBF for shelter and foraging as well as possible basking potential. These same structures may also provide breeding habitat values, although these values are lessened by the proliferation of Plague Minnow *Gambusia holbrooki* and varieties of exotic Carp *Cyprinus carpio*.

GGBF have in more recent times been recorded more regularly successfully breeding in ephemeral locations of which there are few on the subject corridor lands. This phenomenon is thought to be the consequence of the prevalence of Frog Chytrid caused by the pathogen *Batrachochytrium dendrobatidis* that renders more permanent bodies of water less suitable due to the persistence of this pathogen (a Key Threatening Process) in permanent water that does not experience drying episodes which is believed to eliminate it.

Whilst it is not possible to rule out an occasional presence of GGBF from time to time, it is unlikely that the species is present currently. The likelihood of occasional utilisation of the site is most reasonably determined by connectivity to the nearest known site. The extent of roads and other development between the subject land and the Riverstone distribution node, except via drainage lines, makes this consideration unlikely especially for the sites within the Caddies and Elizabeth Macarthur Creek component of the NWRL corridor.

G.4 Recommendations

Where possible, and cognisant of other rehabilitation priorities, GGBF habitat re-creation should be

incorporated into rehabilitation of riparian areas impacted by the NWRL. OEH has prepared a Best Practice Guide to habitat construction (DECC 2007).

Appendix H Green & Golden Bell Frog Habitat Maps



ELA Study Area
Construction Boundary
as at 16/01/12
Parcels LPIA 2011
Contour (1m)

Potential Alignment
as at 20/11/11
Parcels LPIA 2011
Contour (1m)

Green and Golden Bell Frog Habitat
Primary Habitat
Secondary Habitat
Aboveground
Underground

NORTH WEST RAIL LINK

Green and Golden Bell Frog Habitat

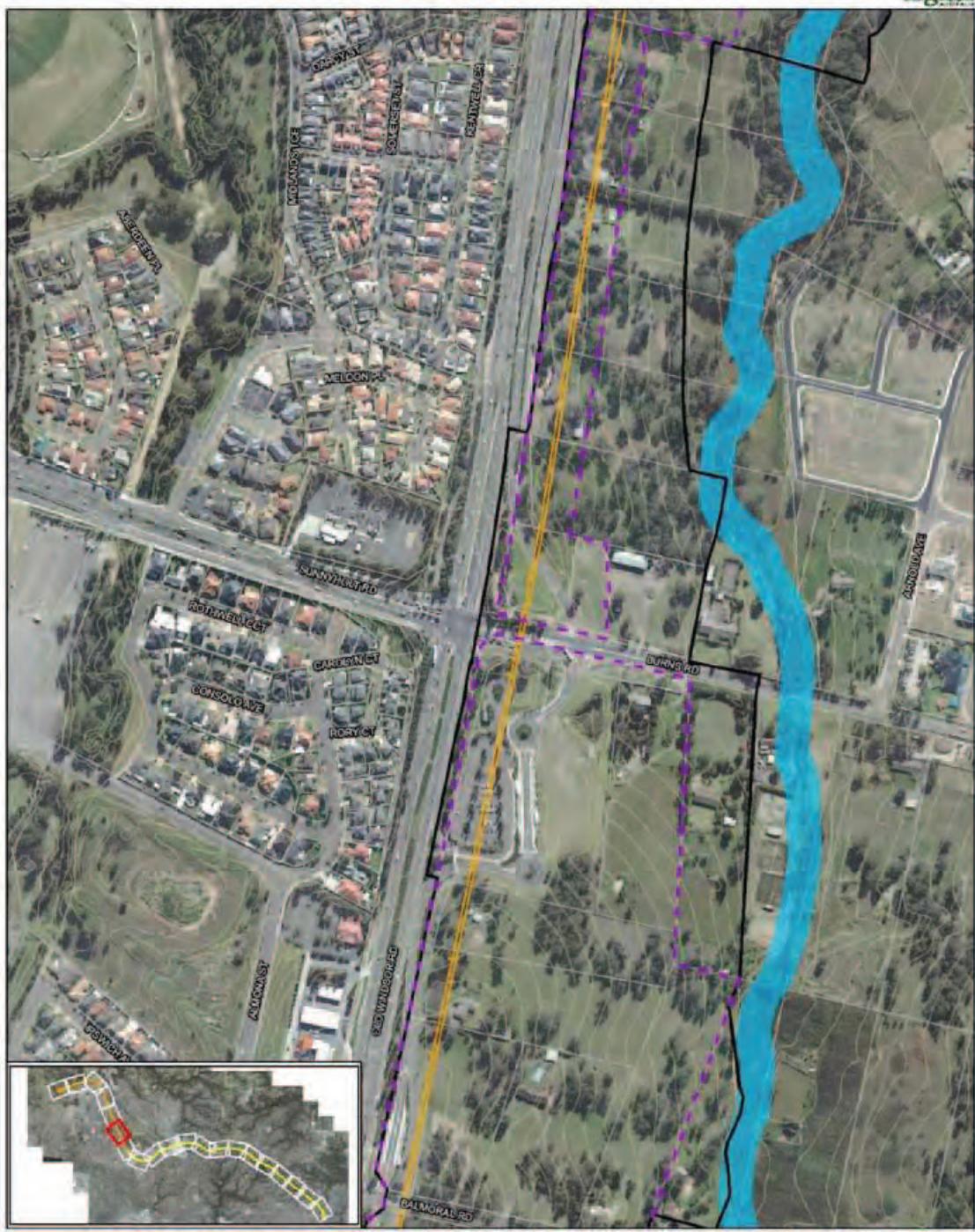
Title 14 of 20

Balmoral Road - Northridge Avenue

GDA 1994
MEGA Zone 58

0 25 50 75 100 m 27 FEB 2012

Balmoral Rd - GGBF



 ELA Study Area
 Construction Boundaries
 as at 10/01/12
 Parcels LPIA 2011
 Contours (1m)

 Potential Alignment:
 as at 20/11/11
 Aboveground
 Underground

 Green and Golden Bell Frog Habitat
 Primary Habitat
 Secondary Habitat

NORTH WEST RAIL LINK

Green and Golden Bell Frog Habitat

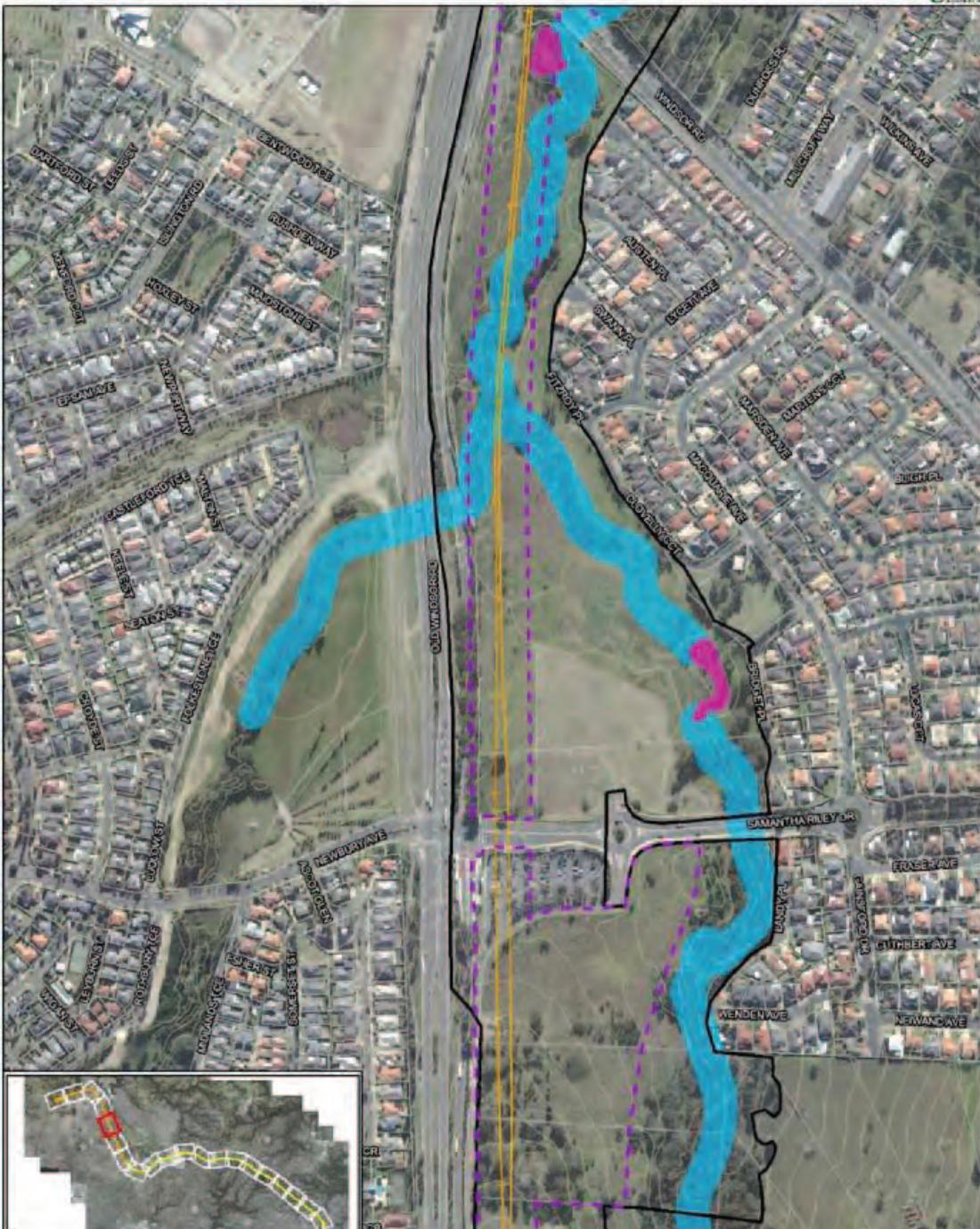
Title 15 of 20

Old Windsor Road - Balmoral Road

GDA 1994
MGA Zone 58

0 25 50 75 100 m 27 FEB 2012

Old Windsor Road - GGBF



ELA Study Area
Construction Boundaries
as at 16/01/12
Dams LPA 2011
Contours (1m)

Potential Alignment
as at 20/11/11
Dams LPA 2011
Contours (1m)

Green and Golden Bell Frog Habitat
Primary Habitat
Secondary Habitat
Aboveground
Underground

NORTH WEST RAIL LINK

Green and Golden Bell Frog Habitat

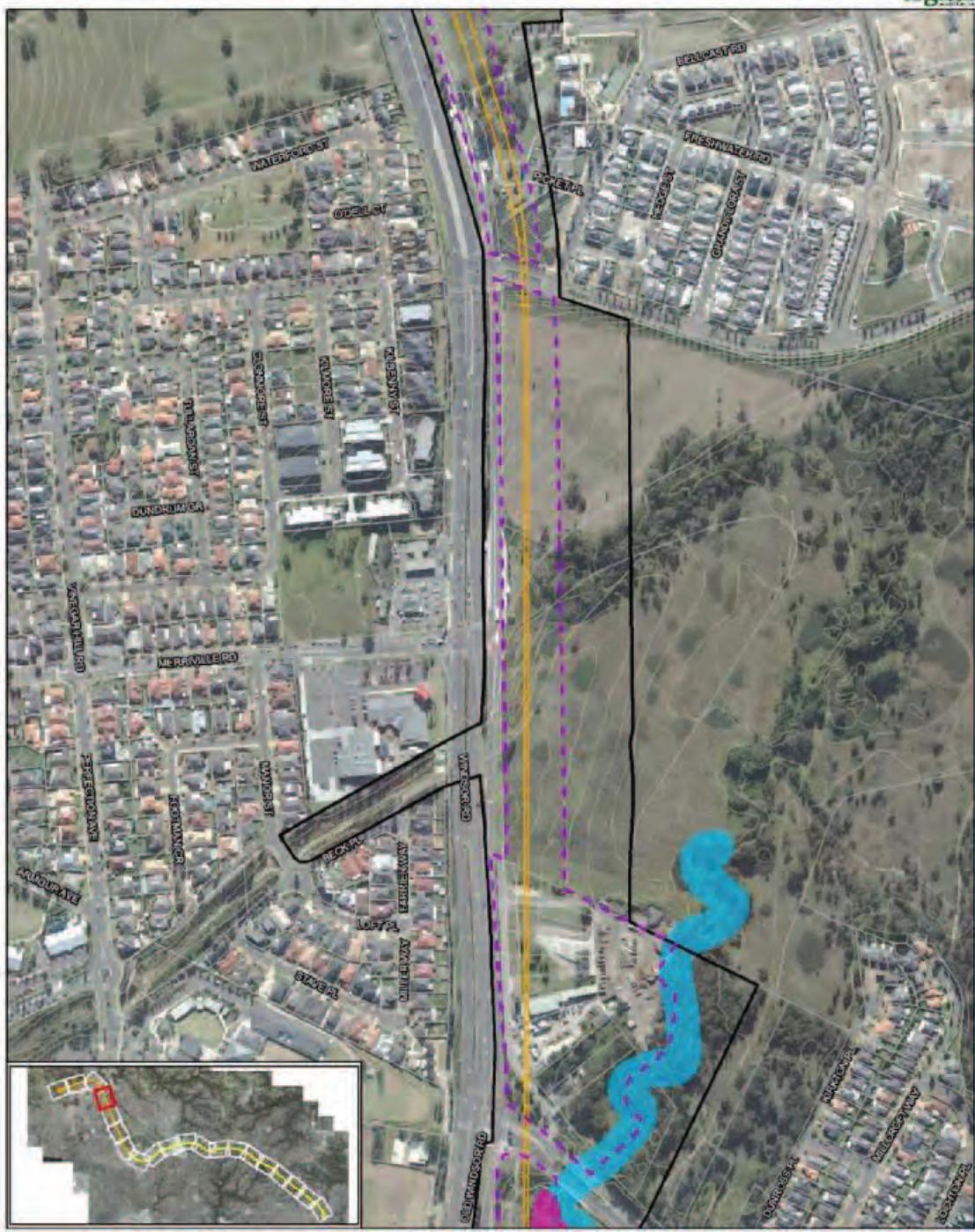
Title 16 of 20

Kellyville Station

GDA 1994
NSW Zone 58

0 25 50 75 100 m 27 FEB 2012

Kellyville - GGBF



ELA Study Area
Construction Boundaries
as of 10/01/12
Parcels LPIA 2011
Contours (1m)

Potential Alignment:
as at 20/11/11
Aboveground
Underground

Green and Golden Bell Frog Habitat
Primary Habitat
Boundary Habitat

NORTH WEST RAIL LINK

Green and Golden Bell Frog Habitat

Title 17 of 20

Windsor Road - Old Windsor Road GDA 1994
NGA Zone 58

0 25 50 75 100 m 27 FEB 2012

Windsor Rd - GGBF



 EUA Study Area
 Construction Boundaries as at 18/01/12
 Parcels LPMA-2011
 Contours (m)

— Potential Alignment as at 20/11/11
— Aboveground
— Underground

■ Primary Habitat
■ Secondary Habitat

NORTH WEST RAIL LINK

Green and Golden Bell Frog Habitat



Tile 20 of 20

First Ponds Creek - Tallawong Road

GJ14-1994
MEGA Zone 58

0 25 50 75 100 m 27 FEB 2012

First Ponds creek - GGBF

Appendix I Opportunistic Sightings



Balmoral Road – Opportunistic Sightings



■ EIA Study Area:
— Construction Boundaries
— at 1100ft
Permit LPMA 2011
Contours (1m)

Opportunistic Sighting
▲ Eastern Spiney-tailed Lizard

NORTH WEST RAIL LINK
Results - Opportunistic Sightings

Tile 15 of 20

Kellyville Station GDA 1994
MEGA Zone 50

0 25 50 75 100 m 27 FEB 2012

Kellyville – Opportunistic Sightings

Appendix J Flora species recorded

Note:

1. An ** before species indicates exotic species, # indicates non-local native.
2. A sample flora assemblage obtained from a short term survey, such as the present one, cannot be considered comprehensive, but rather indicative of the actual flora assemblage. It can take many years of flora surveys to record all of the plant species occurring within any area, especially species that are only apparent in some seasons.
3. Not all species can be accurately identified to species level due to absence of flowering or fruiting material.

FAMILY	SCIENTIFIC NAME	COMMON NAME	Ecological Assessment for the North West Rail Link											
			Cheltenham (Title 2-3)			Epping (Title 1)			Cherrybrook Station (Title 6)			Hills Centre Station (Title 10)		
CPW Q1			CPW Q2			CPW Q3			CPW RM			CPW RM		
Acanthaceae	<i>Brunoniella pumilio</i>	Dwarf Brunoniella	P/E			P/E			P/E			P/E		
Acanthaceae	<i>Reuterantherium variable</i>	Paste Flower		X										
Adiantaceae	<i>Adiantum aethiopicum</i>	Common Maidenhair												
Adiantaceae	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Poison Rock Fern	X	X	X									
Aizooaceae	# <i>Terragonia ferrocnicoides</i>	New Zealand Spinach												
Alliaceae	" <i>Agapanthus praecox</i> subsp. <i>orientalis</i>	African Lily												
Alliaceae	" <i>Nothoscordum borbonicum</i>	Onion Weed												
Astroemeria	" <i>Astroemeria pulchella</i>	Parrot Aistroemeria												
Athyriaceae	" <i>Liquidambar syriaca</i>	Liquidambar												
Amaranthaceae	" <i>Amaranthus sp.</i>													
Anicardiaceae	" <i>Schinus sp.</i>	Pepper Tree												
Anthocoridae	" <i>Chlorophyllum comosum</i>	Spider Plant	X	X	X									
Antennariaceae	" <i>Anthropodium milleflorum</i>	Pale Vanilla-lily		X										
Antennariaceae	<i>Dichopogon finitimus</i>	Nodding Chocolate Lily					X	X						
Antennariaceae	<i>Tricygne elatior</i>	Yellow Autumn-lily						X						
Apiaceae	" <i>Foeniculum vulgare</i>	Fennel			X				X			X		
Apiaceae	<i>Centella asiatica</i>					X			X			X		
Apiaceae	<i>Hydrocotyle sp.</i>													
Apiaceae	<i>Xanthosia pilosa</i>	Woolly Xanthosia		X										
Apiaceae	<i>Xanthosia tridentata</i>	Rock Xanthosia												
Apocynaceae	" <i>Aralia scabrifera</i>	Moth Vine	X											
Apocynaceae	" <i>Merluca oleander</i>	Oleander												
Apocynaceae	" <i>Vinca major</i>	Blue Periwinkle												
Apocynaceae	<i>Parsonsia straminea</i>	Common Silkpod											X	
Apocynaceae	<i>Tylophora barbata</i>	Bearded Tylophora												
Araceae	" <i>Montereya sp.</i>											X		
Araliaceae	" <i>Hedera helix</i>	Elderberry										X		
Araliaceae	" <i>Physcias sambucifolia</i>	Panax	X	X	X				X			X		
Arecaceae	" <i>Phoenix canariensis</i>	Canary Island Date Palm						X				X		

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FAMILY	SCIENTIFIC NAME	COMMON NAME							
Arecaceae	<i>Livistona australis</i>	Cabbage Fan-palm							
Asparagaceae	* <i>Asparagus aethiopicus</i>	Asparagus Fern	x	x	x	x	x		x
Asparagaceae	* <i>Asparagus asparagoides</i>	Bridal Creeper	x	x	x	x	x		x
Asparagaceae	* <i>Asparagus plumosus</i>	Climbing Asparagus	x	x	x	x	x		x
Asphodelaceae	* <i>Aloe sp.</i>	Cordylime sp.		x	x	x	x		
Asteraceae	* <i>Ageratina adenophora</i>	Crofton Weed	x	x	x	x	x		x
Asteraceae	* <i>Arcyotheca calendula</i>	Cape Weed	x	x	x	x	x		x
Asteraceae	* <i>Eidemis pilosa</i>	Cobblers Pegs	x	x	x	x	x		x
Asteraceae	* <i>Chrysanthemoides monilifera</i> subsp. * <i>monilifera</i>	Boneseed	x	x	x	x	x		x
Asteraceae	* <i>Cirsium vulgare</i>	Spear Thistle	x	x	x	x	x		x
Asteraceae	* <i>Conyza bonariensis</i>	Flaxleaf Fleabane	x	x	x	x	x		x
Asteraceae	* <i>Coryza sp</i>		x	x	x	x	x		x
Asteraceae	* <i>Erigeron Karvinskianus</i>	Seaside Daisy	x						x
Asteraceae	* <i>Dahlia sp</i>		x						
Asteraceae	* <i>Gampsocolea calycigera</i>	Cudweed	x	x	x	x	x		x
Asteraceae	* <i>Hypochoeris radicata</i>	Catsear	x	x	x	x	x		x
Asteraceae	* <i>Lactuca serriola</i>	Prickly Lettuce	x	x	x	x	x		x
Asteraceae	* <i>Senecio angulatus</i>		x	x	x	x	x		x
Asteraceae	* <i>Senecio madagascariensis</i>	Fireweed	x	x	x	x	x		x
Asteraceae	* <i>Senecio sp.</i>		x	x	x	x	x		x
Asteraceae	* <i>Sonchus asper</i>	Prickly Sowthistle	x	x	x	x	x		x
Asteraceae	* <i>Sonchus oleraceus</i>	Common Sowthistle	x	x	x	x	x		x
Asteraceae	* <i>Sonchus sp.</i>		x	x	x	x	x		x
Asteraceae	* <i>Taraxacum officinale</i>	Dandelion	x						x
Asteraceae	* <i>Xanthium spinosum</i>	Bathurst Burr	x						x
Asteraceae	<i>Calotis cuneifolia</i>	Burr Daisy	x						x
Asteraceae	<i>Euchiton sp.</i>		x						x
Asteraceae	<i>Euchiton sphaericus</i>		x						x
Asteraceae	<i>Ozoanthamus dominoi</i>	Rice Flower	x						x

FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)											
			STIF Q1	STIF Q2	CSF Q3	CSF Q4	STIF Q5	STIF Q6	STIF Q7	BGHF Q1	BGHF Q2	CPW Q1	CPW Q2	P/E
Asteraceae	<i>Sigesbeckia orientalis</i> subsp. <i>orientalis</i>	Indian Weed	x											
Basellaceae	<i>Aneddera cordifolia</i>	Madeira Vine												
Bignoniaceae	<i>Jacaranda mimosifolia</i>	Jacaranda	x											
Bignoniaceae	<i>Pandorea pandorana</i> subsp. <i>pandorana</i>	Wonga Wonga Vine	x	x	x	x	x	x	x	x	x	x	x	x
Boraginaceae	<i>Echium plantagineum</i>	Paterson's Curse												
Brassicaceae	<i>Brassica sp.</i>													
Brassicaceae	<i>Capsella bursa-pastoris</i>	Shepherd's Purse												
Brassicaceae	<i>Cardamine sp.</i>													
Buxaceae	<i>Buxus sempervirens</i>	Box Hedge												
Cactaceae	<i>Opuntia stricta</i>	Common Prickly Pear												
Campanulaceae	<i>Wahlenbergia gracilis</i>	Sprawling Bluebell												
Campanulaceae	<i>Wahlenbergia sp.</i>													
Caprifoliaceae	<i>Lonicera japonica</i>	Japanese Honeysuckle	x	x	x	x	x	x	x	x	x	x	x	x
Caryophyllaceae	<i>Paronychia brasiliensis</i>	Chilean Whitlow Wort												
Caryophyllaceae	<i>Stellaria media</i>	Common Chickweed												
Casuarinaceae	<i>Allocasuarina littoralis</i>	Black She-oak	x	x	x	x	x	x	x	x	x	x	x	x
Casuarinaceae	<i>Allocasuarina torulosa</i>	Forest Oak	x	x	x	x	x	x	x	x	x	x	x	x
Casuarinaceae	<i>Casuarina cunninghamiana</i>	River Oak												
Casuarinaceae	<i>Casuarina glauca</i>	Swamp Oak												
Chenopodiaceae	<i>Atriplex sp.</i>													
Chenopodiaceae	<i>Enactia hastata</i>	Berry Saltbush	x											
Clusiaceae	<i>Hypericum perforatum</i>	St. John's Wort												
Clusiaceae	<i>Hypericum graminifolium</i>	Small St. John's Wort												
Commelinaceae	<i>Tradescantia fluminensis</i>	Wandering Jew	x	x	x	x	x	x	x	x	x	x	x	x
Commelinaceae	<i>Commelinia cyanea</i>	Native Wandering Jew	x	x	x	x	x	x	x	x	x	x	x	x
Convolvulaceae	<i>Ipomoea cairica</i>	Coastal Morning Glory	x	x	x	x	x	x	x	x	x	x	x	x
Convolvulaceae	<i>Ipomoea indica</i>	Morning Glory	x	x	x	x	x	x	x	x	x	x	x	x

FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)													
			STIF Q1	STIF Q2	CSF Q3	CSF Q4	STIF Q5	STIF Q6	STIF Q7	STIF Q8	STIF Q9	STIF Q10	STIF Q11	STIF Q12	STIF Q13	STIF Q14
Ericaceae - Styphelioidae	<i>Leucopogon lanceolatus</i>	Peach Heath	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ericaceae - Styphelioidae	<i>Lissanthe strigosa</i>															
Euphorbiaceae	<i>Euphorbia peplus</i>	Petty Spurge														
Euphorbiaceae	<i>Homalanthus polystachyus</i>	Bleeding Heart														
Fabaceae - Faboideae	<i>Ceratista monosperma</i>	Monpellier Broom														
Fabaceae - Caesalpinioidae	<i>Caesalpinia gilliesii</i>															
Fabaceae - Caesalpinioidae	<i>Senna pendula</i>	Bird-of-Paradise Shrub	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Fabaceae - Faboideae	#/ <i>Indigofera australis</i>	Australian Indigo														
Fabaceae - Faboideae	<i>Lotus sp.</i>															
Fabaceae - Faboideae	<i>Medicago sp.</i>															
Fabaceae - Faboideae	<i>Robinia pseudoacacia</i>	Black Locust														
Fabaceae - Faboideae	<i>Trifolium sp.</i>															
Fabaceae - Faboideae	*/ <i>Kia sp.</i>															
Fabaceae - Faboideae	<i>Boswellia obovata</i>	Spiry Boswellia	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Fabaceae - Faboideae	<i>Daviesia ulicina</i>	Gorse Bitter Pea														
Fabaceae - Faboideae	<i>Desmodium sp.</i>															
Fabaceae - Faboideae	<i>Desmodium varians</i>	Slender Tick-trefoil	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Fabaceae - Faboideae	<i>Glycine clandestina</i>															
Fabaceae - Faboideae	<i>Glycine microphylla</i>	Small-leaf glycine	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Fabaceae - Faboideae	<i>Glycine sp.</i>															
Fabaceae - Faboideae	<i>Glycine latiflora</i>															
Fabaceae - Faboideae	<i> Hardenbergia violacea</i>	Hardenbergia violacea	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Fabaceae - Faboideae	<i>Kennedia rubicunda</i>	Dusky Coral Pea	x	x	x	x	x	x	x	x	x	x	x	x	x	x

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FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)															
			STIF Q1	STIF Q2	CSF Q3	CSF Q4	STIF Q5	STIF Q6	STIF Q7	STIF Q8	STIF Q9	STIF Q10	STIF Q11	STIF Q12	STIF Q13	STIF Q14	STIF Q15	STIF Q16
Fabaceae - Faboideae	<i>Phyllobium formosum</i>	Handsome Flat Pea																
Fabaceae - Faboideae	<i>Pittosporum tuberculata</i>	Wreath Bush-pea																
Fabaceae - Faboideae	<i>Zornia sp.</i>																	
Fabaceae - Mimosideae	# <i>Acacia saligna</i>	Golden Wreath Wattie																
Fabaceae - Mimosideae	# <i>Acacia sp.</i>																	
Fabaceae - Mimosideae	<i>Acacia decurrens</i>	Black Wattie																
Fabaceae - Mimosideae	<i>Acacia falcata</i>																	
Fabaceae - Mimosideae	<i>Acacia linifolia</i>	Sydney Golden Wattie																
Fabaceae - Mimosideae	<i>Acacia longifolia</i> subsp. <i>longifolia</i>																	
Fabaceae - Mimosideae	<i>Acacia parramattensis</i>	Parramatta Wattie	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Fabaceae - Mimosideae	<i>Acacia suaveolens</i>																	
Fabaceae - Mimosideae	<i>Acacia ulicifolia</i>																	
Fagaceae	* <i>Quercus lobatae</i>	Prickly Moses	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Gentianaceae	* <i>Centaurium sp.</i>	Pin Oak																
Geraniaceae	<i>Geranium solanderi</i>	Native Geranium																
Geraniaceae	<i>Geranium sp.</i>																	
Gleicheniaceae	<i>Schizophragma integrifolium</i>	Shiny Fan Fern																
Goodeniaceae	<i>Goodenia sp.</i>																	
Haemodoraceae	<i>Haemodorum corymbosum</i>																	
Haloragaceae	* <i>Myriophyllum aquaticum</i>	Parrot Feather																
Iridaceae	* <i>Herberlesia latue</i>	Raspwort																
Iridaceae	* <i>Watsonia meriana</i>	Bulbil Watsonia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Juncaceae	<i>Pattersonia glabrata</i>	Leathy Purple-flag	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Juncaceae	* <i>Juncus acutus</i>	Sharp Rush																
Juncaceae	<i>Juncus usitatus</i>																	
Lamiaceae	# <i>Westringia sp.</i>																	

FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)														
			STIF Q1	STIF Q2	CSF Q3	CSF Q4	STIF Q5	STIF Q6	STIF Q7	STIF Q8	STIF Q9	STIF Q10	STIF Q11	STIF Q12	STIF Q13	STIF Q14	STIF Q15
Lamiaceae	"Lavandula sp.	Lavender															
Lamiaceae	"Plectranthus paniculatus	Cockspeur Flower	x														
Lamiaceae	Plectranthus sp.																
Lauraceae	"Cinnamomum camphora	Camphor Laurel	x														
Lauraceae	Cassytha glabella																
Lauraceae	Cassytha pubescens																
Liliaceae	"Lilium formosanum	Formosan Lily															
Liliaceae	"Lilium sp.																
Lindsaeaceae	Lindsaea linearis	Screw Fern	x														
Lindsaeaceae	Lindsaea microphylla	Lacy Wedge Fern		x													
Lobiellaceae	Lobelia dentata		x														
Lobeliales	Pratia purpurascens	Whiteroot	x	x				x	x	x							
Loganiaceae	Logania albiflora				x												
Lomandraceae	#Lomandra longifolia	Spiny-headed Mat-rush			x		x										
Lomandraceae	Lomandra cylindrica	Needle Mat-Rush	x														
Lomandraceae	Lomandra filiformis	Wattle Mat-rush	x	x			x										
Lomandraceae	Subsp. <i>filiformis</i>																
Lomandraceae	Lomandra gracilis		x														
Lomandraceae	Lomandra longifolia	Spiny-headed Mat-rush	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lomandraceae	Lomandra multiflora subsp. <i>multiflora</i>	Many-flowered Mat-rush	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lomandraceae	Lomandra obliqua		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lomandraceae	Lomandra sp.																
Luzuriagaceae	Eustrephus latifolius	Wombat Berry	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Luzuriagaceae	Geitonoplesium cymosum	Scrambling Lily			x	x	x	x	x	x	x	x	x	x	x	x	x
Lyticeae	"Lagerstroemia sp	Crepe Myrtle															
Malaceae	"Coloneaster glaucophyllus	Cotoneaster	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Malaceae	"Rhampholobus indica	Indian Hawthorn			x												
Malvaceae	"Hibiscus sp																
Malvaceae	"Modiola caroliniana	Red-flowered Mallow					x	x	x	x	x	x	x	x	x	x	x
Malvaceae	"Sida rhombifolia	Paddy's Lucerne	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Meliaceae	<i>Melia azedarach</i>	White Cedar	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Moraceae	#Ficus sp.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

FAMILY	SCIENTIFIC NAME	COMMON NAME	Cheltenham (Title 2-3)									
			STIF Q1	STIF Q2	STIF Q3	STIF Q4	STIF Q5	STIF Q6	STIF Q7	STIF Q8	STIF Q9	STIF Q10
			CSSF Q1	CSSF Q2	CSSF Q3	CSSF Q4	CSSF Q5	CSSF Q6	CSSF Q7	BGHF Q1	BGHF Q2	BGHF Q3
			P/E	P/E	P/E	P/E	P/E	P/E	P/E	PE	PE	PE
			Castle Hill Station (Title 8)	SSTF Q1	SSTF Q2	SSTF Q3	SSTF Q4	SSTF Q5	SSTF Q6	STFE TR	CPW Q1	CPW Q2
			P/E	PE	PE	PE	PE	PE	PE	CPW RM	Kellyville (Samantha Bailey to Burns) (Title 14)	CPW RM
			Norwest Station (Title 12)	STFE TR	STFE TR	STFE TR	CPW Q1	CPW Q2	CPW Q3	CPW RM	Kellyville (Burns to Samantha Bailey) (Title 15)	CPW RM
			P/E	PE	PE	PE	PE	PE	PE	RFEF RM	Kellyville (Samantha Bailey to Wind sor) (Title 17)	RFEF RM
			CPW RM	RFEF Q1	RFEF Q2	RFEF Q3	RFEF Q4	RFEF Q5	RFEF Q6	CPW RM	Kellyville (Samantha Bailey to Rose Hill) (Title 18)	CPW RM
			P/E	P/E	P/E	P/E	P/E	P/E	P/E	First Ponds Crk to Tallawong Rd (Title 20)	P/E	P/E

FAMILY	SCIENTIFIC NAME	COMMON NAME	Ecpping (Title 1)														
			STIF Q1	STIF Q2	CSF Q3	CSF Q4	SSTF Q5	SSTF Q6	BGHF Q1	BGHF Q2	SSTF TR	CPW Q1	CPW Q2	CPW Q3	P/E	Keltyville (Burns to Balmoral) (Title 13)	
Myrtaceae	<i>Eucalyptus pilularis</i>	Blackbutt															Keillyville (Burns to Balmoral) (Title 13)
Myrtaceae	<i>Eucalyptus piperita</i>	Sydney Peppermint															
Myrtaceae	<i>Eucalyptus punctata</i>	Narrow-leaved Scrubby Gum															
Myrtaceae	<i>Eucalyptus racemosa</i>																
Myrtaceae	<i>Eucalyptus resinifera</i>	Red Mahogany	x	x	x	x	x	x	x	x	x	x	x	x	x		
Myrtaceae	<i>Eucalyptus saligna</i>	Sydney Blue Gum															
Myrtaceae	<i>Eucalyptus tereticornis</i>	Forest Red Gum															
Myrtaceae	<i>Kunzea ambigua</i>	Tick Bush					x	x	x	x	x	x	x	x	x		
Myrtaceae	<i>Lophostemon polystachyum</i>					x											
Myrtaceae	<i>Melaleuca decora</i>																
Myrtaceae	<i>Melaleuca erubescens</i>																
Myrtaceae	<i>Melaleuca nodosa</i>	Prickly-leaved Paperbark															
Myrtaceae	<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark															
Myrtaceae	<i>Melaleuca styphelioides</i>	Prickly-leaved Tea Tree															
Myrtaceae	<i>Synapheia glomerulifera</i>	Turpentine	x	x	x	x	x	x	x	x	x	x	x	x	x		
Nandinaeae	<i>Nandina domestica</i>	Japanese Sacred Bamboo	x	x	x	x	x	x	x	x	x	x	x	x	x		
Ochnaceae	<i>Ochna serrulata</i>	Mickey Mouse Plant	x	x	x	x	x	x	x	x	x	x	x	x	x		
Oleaceae	<i>Fraxinus excelsior</i>	Golden Ash															
Oleaceae	<i>Jasminum sp.</i>																
Oleaceae	<i>Ligustrum lucidum</i>	Large Leaved Privet	x	x	x	x	x	x	x	x	x	x	x	x	x		
Oleaceae	<i>Ligustrum sinense</i>	Small Leaved Privet	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Oleaceae	<i>Olea europaea subsp. cuspida</i>	African Olive												x	x	x	
Oleaceae	<i>Notelaea longifolia</i>	Large Mock-orange															
Onagraceae	<i>Luwigia peruviana</i>	Peruvian Primrose												x	x	x	
Orchidaceae	<i>Acanthias sp.</i>																
Orchidaceae	<i>Caladenia sp.</i>													x	x	x	
Orchidaceae	<i>Calochilus sp.</i>													x	x	x	
Orchidaceae	<i>Corybas sp.</i>													x	x	x	

FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)														
			STIF Q1	STIF Q2	STIF Q3	STIF Q4	STIF Q5	STIF Q6	STIF Q7	STIF Q8	STIF Q9	STIF Q10	STIF Q11	STIF Q12	STIF Q13	STIF Q14	STIF Q15
Orchidaceae	<i>Cryptostylis</i> sp.																
Oxalidaceae	" <i>Oxalis</i> sp.																
Oxalidaceae	<i>Oxalis perennans</i>																
Pasifloraceae	" <i>Passiflora</i> sp.																
Phormiaceae	<i>#Dianella</i> sp.																
Phormiaceae	<i>Dianella caerulea</i> var. <i>caerulea</i>	Blue Flax Lily	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Phormiaceae	<i>Dianella longifolia</i> var. <i>longifolia</i>																
Phormiaceae	<i>Dianella revoluta</i>	Blueberry Lily			x	x	x	x	x	x	x	x	x	x	x	x	x
Phyllanthaceae	<i>Breynia oblongifolia</i>	Coffee Bush				x	x	x	x	x	x	x	x	x	x	x	x
Phyllanthaceae	<i>Glochidion ferdinandi</i>	Cheese Tree	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Phyllanthaceae	<i>Phyllanthus hirtellus</i>	Thyme Spurge				x	x	x	x	x	x	x	x	x	x	x	x
Phyllanthaceae	<i>Phyllanthus</i> sp.																
Phyllanthaceae	<i>Poranthera microphylla</i>																
Phytolaccaceae	<i>Phytolacca octandra</i>	Ink Weed															
Picrodendraceae	<i>Picrodendron</i> encioides																
Pinaceae	" <i>Abies</i> sp.																
Pinaceae	" <i>Pinus</i> sp.																
Pittosporaceae	<i>#Bursaria spinosa</i>	Blackthorn	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pittosporaceae	<i>Billardiera scandens</i>	Hairy Apple Berry	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pittosporaceae	<i>Bursaria spinosa</i>	Blackthorn	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pittosporaceae	<i>Pittosporum revolutum</i>	Wild Yellow Jasmine			x	x	x	x	x	x	x	x	x	x	x	x	x
Pittosporaceae	<i>Pittosporum undulatum</i>	Native Daphne	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Plantaginaceae	" <i>Plantago lanceolata</i>	Lamb's Tongues				x	x	x	x	x	x	x	x	x	x	x	x
Plantaginaceae	" <i>Platanus</i> sp.	Plane Tree					x	x	x	x	x	x	x	x	x	x	x
Poaceae	" <i>Aira</i> sp.																
Poaceae	" <i>Avena fatua</i>	Wild Oats															
Poaceae	" <i>Eruca sativa</i>	Quaking Grass															
Poaceae	" <i>Eruca sativa</i>	Shivery Grass															
Poaceae	" <i>Eruca sativa</i>	Prairie Grass															
Poaceae	" <i>Eromus cathericus</i>	Rhodes Grass	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	" <i>Eromus</i> sp.																
Poaceae	" <i>Chloris gayana</i>	Pampas Grass	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	" <i>Coradina selliana</i>																

FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)											
			STIF Q1	STIF Q2	CSSF Q3	CSSF Q4	STIF Q5	STIF Q6	BGHF Q1	BGHF Q2	CPW Q1	CPW Q2	CPW Q3	CPW Q4
Poaceae	<i>Ehrhartia erecta</i>	Panic Veldtgrass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Eragrostis curvula</i>	African Lovegrass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Lolium perenne</i>	Perennial Ryegrass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Paspalum dilatatum</i>	Paspalum	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Pennisetum clandestinum</i>	Kikuyu	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Pennisetum villosum</i>	Feathertop	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Phalaris aquatica</i>	Phalaris	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Poa annua</i>	Winter Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Setaria palmifolia</i>	Palm Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Setaria sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Sporobolus sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Stenotaphrum secundatum</i>	Buffalo Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Tripia myuros</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Anisopogon avenaceus</i>	Oat Speargrass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Aristida vagans</i>	Threeawn Speargrass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Austrodanthonia sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Austrodanthonia sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Austrostipa pubescens</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Austrostipa verticillata</i>	Slender Bamboo Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Chionis truncata</i>	Windmill Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Cynodon dactylon</i>	Couch	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Dichelachne micrantha</i>	Shorthair Plumegrass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Dichelachne sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Digitaria parviflora</i>	Small- flowered Finger Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Echinopogon caespitosus</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Echinopogon ovatus</i>	Forest Hedgehog Grass	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Echinopogon sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Entolasia marginata</i>	Bordered Panic	x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Entolasia stricta</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Eragrostis sp.</i>		x	x	x	x	x	x	x	x	x	x	x	x
Poaceae	<i>Imperata cylindrica</i>	Blady Grass	x	x	x	x	x	x	x	x	x	x	x	x

FAMILY	SCIENTIFIC NAME	COMMON NAME	Epping (Title 1)												
			STIF Q1	STIF Q2	CSSE Q3	CSSE Q4	STIF Q5	STIF Q6	STIF Q7	BGHF Q1	BGHF Q2	CPW Q1	CPW Q2	P/E	Norwest Station (Title 10)
Ranunculaceae	* <i>Ranunculus</i> sp.	Old Man's Beard	x	x	x	x	x	x	x	x	x	x	x	x	P/E
Ranunculaceae	<i>Clematis aristata</i>	Headache Vine													P/E
Ranunculaceae	<i>Clematis glycinoides</i>														P/E
Restionaceae	<i>Lepidium sativum</i>														P/E
Rosaceae	* <i>Prunus serrulata</i>	Japanese Cherry													P/E
Rosaceae	* <i>Fragaria</i> sp.														P/E
Rosaceae	* <i>Rubus</i> sp.	Blackberry													P/E
Rosaceae	* <i>Rubus parviflorus</i>														P/E
Rubiaceae	* <i>Gaultheria aparine</i>	Goosegrass													P/E
Rubiaceae	<i>Aperula conferta</i>	Common Woodruff													P/E
Rubiaceae	* <i>Romax umbellata</i>														P/E
Rutaceae	* <i>Coleonema pulchellum</i>	Diosma													P/E
Rutaceae	<i>Zenobia smithii</i>	Sandfly	x	x	x	x	x	x	x	x	x	x	x	x	P/E
Salicaceae	* <i>Populus alba</i>	White Poplars													P/E
Salicaceae	* <i>Salix</i> sp.	Weeping Willow													P/E
Santalaceae	<i>Eriocarpus cypriiformis</i>	Cherry Ballart													P/E
Santalaceae	<i>Eriocarpus</i> sp.														P/E
Santalaceae	<i>Leptomeria acida</i>														P/E
Sapindaceae	* <i>Acer negundo</i>	Native Currant	x	x	x	x	x	x	x	x	x	x	x	x	P/E
Sapindaceae	* <i>Acer palmatum</i>	Boxelder Maple													P/E
Sapindaceae	* <i>Cordiospermum grandifolium</i>	Japanese Maple													P/E
Sapindaceae	<i>Dodonaea triquetra</i>	Balloon Vine													P/E
Schizaceae	<i>Schizaea bifida</i>	Large-leaved Hop-bush	x	x	x	x	x	x	x	x	x	x	x	x	P/E
Schizophiliaceae	<i>Veronica plebeja</i>	Forked Comb Fern													P/E
Smilacaceae	<i>Smilax glyciphylla</i>	Trailing Sweet Sarsaparilla	x	x	x	x	x	x	x	x	x	x	x	x	P/E
Solanaceae	* <i>Cestrum parqui</i>	Green Cestrum													P/E
Solanaceae	* <i>Lycium ferocissimum</i>	African Boxthorn													P/E
Solanaceae	* <i>Solanum elaeagnoides</i>	White-top Nightshade													P/E
Solanaceae	* <i>Solanum laxum</i>	Potato Climber													P/E
Solanaceae	* <i>Solanum mauritianum</i>	Wild Tobacco Bush	x	x	x	x	x	x	x	x	x	x	x	x	P/E

Ecological Assessment for the North West Rail Link

FAMILY		SCIENTIFIC NAME	COMMON NAME	Ecological Assessment for the North West Rail Link																		
		<i>Solanaceae</i>	<i>Solanum nigrum</i>	Black-berry Nightshade																		
		<i>Solanaceae</i>	<i>Solanum pseudocapsicum</i>	Madeira Winter																		
		<i>Solanaceae</i>	<i>Solanum sp.</i>																			
		<i>Solanaceae</i>	<i>Solanum pinnphyllum</i>	Forest Nightshade																		
		<i>Solidaeaceae</i>	<i>Stackhousia viminea</i>	Slender Stackhousia																		
		<i>Sterculiaceae</i>	# <i>Brachychiton acerifolius</i>	Flame Tree																		
		<i>Styliacae</i>	<i>Stylium lineare</i>	Narrow-leaved Triggerplant																		
		<i>Theaceae</i>	# <i>Camellia sp</i>																			
		<i>Thymelaeaceae</i>	<i>Prunella lanifolia</i>	Slender Rice Flower																		
		<i>Typhaceae</i>	<i>Typha orientalis</i>	Broadleaf Cumbungi																		
		<i>Ulmaceae</i>	<i>Celtis sinensis</i>	Japanese Hackberry																		
		<i>Ulmaceae</i>	<i>Trema tomentosa</i>	Peach																		
		<i>Urticaceae</i>	# <i>Urtica incisa</i>	Stinging Nettle																		
		<i>Verbenaceae</i>	" <i>Lantana camara</i>	Lantana	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		<i>Verbenaceae</i>	" <i>Verbena bonariensis</i>	Purpletop	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		<i>Verbenaceae</i>	" <i>Verbena rigida</i>	Veined Verbena																		
		<i>Violaceae</i>	" <i>Viola odorata</i>	Sweet Violet		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		<i>Vitaceae</i>	<i>Cissus antarctica</i>	Kangaroo Vine																		
		<i>Vitaceae</i>	<i>Cissus hypoglauca</i>	Water Vine		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		<i>Xanthorrhoeaceae</i>	<i>Xanthorrhoea arborea</i>			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		<i>Xanthorrhoeaceae</i>	<i>Xanthorrhoea sp.</i>			x																
		<i>Zingiberaceae</i>	" <i>Hedychium gardnerianum</i>	Ginger Lily		x																

* denotes exotic species
denotes native planned or non-indigenous to the area

Vegetation Community Acronyms
 BGHF Blue Gum High Forest
 CPW Cumberland Plain Woodland
 CSSF Coastal Shale/Sandstone Forest

P/E	Planted / Exotic
RFEF	River Flat Eucalyptus Forest
SSTF	Shale/Sandstone Transitional Forest
STIF	Sydney Turpentine-Ironbark Forest

Abbreviations for Vegetation Survey Methods

Q	Bio-banking Quadrat
RM	Random Meander
TR	Traverse