Appendix 9

Flora and Fauna Impact Assessment

Flora and Fauna Assessment,
Proposed Resource Recovery Facility,
7 Montore Road, Minto.

March 2020

Aquila Ecological Surveys

Report prepared for:

Camolaw Pty Ltd.

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1. Introduction and Recommendations

AES was contracted by Camolaw Pty Ltd (the applicant) to undertake a fauna and flora assessment of its proposal to use 7 Montore Road, Minto as a resource recovery facility. The extent of the proposed development is illustrated on the site plan (attached at rear) and detailed in the Environmental Impact Statement, which this report accompanies. The aims of this assessment are to determine:

- whether the proposed development is likely to have a significant effect on biodiversity values as defined by the Biodiversity Conservation Act 2016 (BC Act); and
- whether the site represents "core" koala habitat as defined by State Environmental Planning Policy (SEPP) 44 -Koala Habitat Protection; and
- impacts on threatened species and ecological communities under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The main findings of the assessment are as follows:

- Vegetation at the site is heavily modified composed of planted trees and introduced grasses and shrubs that have colonised the underlying sandstone material that was deposited by the Roads and Traffic Authority some years ago. The vegetation does not conform to any Endangered Ecological Community listed on the BC Act or the EPBC Act and has no conservation significance.
- No flora species listed as threatened on either the BC Act or the EPBC Act were detected on the site and it is considered unlikely that any would be present.
- No threatened fauna species were detected on site. It is considered that no threatened fauna species are likely to occur.
- It is considered that the proposal is not likely to have a significant effect on biodiversity values as defined by the BC Act. A request for a BDAR waiver was prepared and the waiver granted (attached at rear).
- The site is not core koala habitat as defined by SEPP 44. The development application may proceed without a plan of management being prepared for the Koala.
- There is unlikely to be a significant effect on threatened species, migratory species or ecological communities listed on the Environment Protection and Biodiversity Conservation Act. Therefore, referral to Federal Minister for the Environment is not required.

2. Environmental Setting

The site is illustrated on Figure 1 below. It covers approximately 2.35ha and is located south-west of Montore Road, 240 metres west of its intersection with Airds Road. Surrounding land use consists of already developed industrial blocks of a similar size.

The site has been cleared for some time and at the time of the survey was being used as a depot for Coates Hire. It is characterised by more or less level ground with some areas of fill. The site drains to Bow Bowing Creek, a tributary of the Georges River. Adjacent to the site and for some distance up and downstream Bow Bowing Creek has been "formalised" into a concrete channel.

Figure 1. Aerial Photo of the Site © NSW Government 2020.

3. Methods

3.1 Literature Review

Prior to undertaking the field survey, a review of literature relevant to the subject site and wider local area and region was undertaken. Documents and databases reviewed included:

- Vegetation mapping of Sydney Metropolitan Area by the NSW Office of Environment and Heritage [OEH] (2013);
- Point records of Bionet [the Atlas of NSW Wildlife] (OEH 2020a); and
- The Commonwealth Department of the Environment and Energy's Protected Matters Search Tool (DEE 2020a).

3.2 Field Survey

Fieldwork was undertaken on 11/01/2019 using the following methods. Conditions during the survey were warm temperatures 24^0C, clear skies and no wind. In relation to a previous proposal, a survey was also conducted on 24/10/2012. Results from that survey are also drawn upon in this report.

3.2.1 Vegetation

The vegetation survey involved random meanders through the site and recording plant species present. Plants not readily identified in the field were collected for identification using standard texts. Checks were made against the Schedules 1 and 2 of the BC Act and the EPBC Act for species, populations and communities of conservation significance.

3.2.2 Fauna

The vegetation community descriptions were used to describe the different fauna habitats that occur on the site. The habitat surrounding the site was also investigated to gain an appreciation of the relative importance of the habitat that occurs on the site.

Notes were made of specific sources of native fauna food and shelter, such as dense shrubs, flowering trees, tree hollows and rock outcrops. The presence, or lack, of particular fauna habitat requirements was noted to enable predictions of species that would be likely to utilise the site.

A search was made for indirect evidence of mammal presence such as droppings, burrows, tracks, diggings and bones. The stormwater pipe that discharges into Bow Bowing Creek just west of the site was checked for the presence of roosting microchiropterans (insectivorous bats) Habitat types and the degree of disturbance were assessed to enable predictions of mammal species presence.

A reptile search was undertaken throughout the site. This involved looking under rocks, bark, fallen timber and leaf litter. Debris found near moist habitats was checked for the presence of frogs and the type of moist habitats present was noted to allow predictions of frog species likely to occur.

4. Results

4.1 Literature Review

4.1.1 Vegetation Mapping

Vegetation mapping by NPWS (2002a), Tozer et al (2010) and OEH (2013) indicates there is no remnant native vegetation on or adjacent to the site.

4.1.2 Threatened Species

Appendix 1 details the conservation status, habitat requirements and likelihood of occurrence at the site of those threatened flora and fauna species that have been detected or are considered to have suitable habitat within five kilometres of the study area (OEH 2020a; DEE, 2020).

4.2 Survey Results

4.2.1 Flora

4.2.1 (a) Vegetation Description

The site has been cleared for some time and the northern third of it has been levelled and occupied by offices and plant of Coates Hire. Vegetation on the site is characterised by rank growth of introduced pasture grasses and broad-leaf weeds. Common species are Kikuyu Grass

(Pennisetum clandestinum), Rhodes Grass (Chloris gayana), African Lovegrass (Eragrostis curvula), Purple-top (Verbena bonariensis), Fireweed (Senecio madagascariensis) and Fennel (Foeniculum vulgare). Patches of Blackberry (Rubus ulmifolius) are also present. There is a line of planted Swamp Oaks (Casuarina glauca), Ribbon Gums (Eucalyptus viminalis) and Manna Gums (E. mannifera) along the western boundary and a few Swamp Oaks near the eastern boundary. Plates 1 and 2 below illustrate the site's vegetation.

Plate 1. Rank grassland in the south of the site with Kennards storage area in background.

Plate 2. Planted Eucalypts along the western boundary.

4.2.1 (b) Conservation Significance of the Vegetation

The site's vegetation is highly modified and has no conservation significance.

4.2.1 (c) Flora Species

A list of flora species detected at the site is provided in Appendix A. No threatened flora species were found at the subject site. Due to the unsuitability of the site's habitat, none of those threatened species listed in Table 1 are considered likely to be present in the soil seedbank and not apparent above ground.

Under the Biosecurity Act 2015, "all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with

any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable."

Of those species recorded, the following are priority weeds in the Greater Sydney Area:

- African Olive (Olea europaea subsp cuspidata)
- Chilean Needle Grass (Nassella neesiana)
- Cape Broom (Genista monspessulana)
- Fireweed (Senecio madagascariensis).

In the core infestation area of African Olive (which includes the Campbelltown LGA), land managers have a duty under the Act to prevent spread from their land where feasible and reduce impacts from the plant on priority assets. The plants on site would be removed as part of the redevelopment of the site.

Apart from the prohibition on importing or selling these species, there are no particular control measures relevant to Chilean Needle Grass, Cape Broom or Fireweed in the Campbelltown LGA.

Chilean Needle Grass (Nassella neesiana) is also a weed of national significance as are Montpellier Broom (Genista monspessulana), Fireweed (Senecio madagascariensis) and Blackberry (Rubus ulmifolius).

4.2.2. Fauna

4.2.2(a) Fauna Habitat Features

The vegetation description broadly outlines fauna habitat. Other features that influence the range and abundance of fauna are:

- The site is within an industrialised and urbanised area limiting the range of abundance of habitat features that may favour the presence of native fauna species.
- There are no tree hollows or stags (standing dead trees) suitable for habitation by vertebrate fauna.
- A small drainage ditch occurs in the middle of the site. Although this may harbour common frog species such as the Eastern Common Froglet (Crinia signifera), no frogs, tadpoles or egg congregations were observed in the pond.

- No suitable roosting niches for microchiropterans were found in the stormwater culvert that discharges into Bow Bowing Creek near the north-western corner of the site.

4.2.2(b) Fauna detected during the field survey

A narrow range of fauna species was detected during the site surveys. Species detected were Grey Goshawk (Accipiter novaehollandiae), White-faced Heron (Egretta novaehollandiae), Galah (Eolophus roseicapilla), Sulphur-crested Cockatoo (Cacatua galerita), Rainbow Lorikeet (Trichoglossus haematodus), Musk Lorikeet (Glossopsitta concinna), Superb Fairy-wren (Malurus cyanea), Red Wattlebird (Anthochaera carunculata), Noisy Miner (Manorina melanocephala), White-plumed Honeyeater (Lichenostomus penicillatus), Willie Wagtail (Rhipidura leucophrys), Grey Butcherbird (Cracticus torquatus), Australian Mudlark (Grallina cyanoleuca), Australian Raven (Corvus coronoides), Common Myna (Sturnus tristis), and Garden Skink (Lamprophilus delicata).

Whilst the lack of fauna is to some degree a reflection of the brevity of the field survey, it is also a function of the limited habitat value of the site and its environs.

4.2.2(c) Threatened Fauna

No fauna species listed as threatened on the BC Act or the EPBC Act were detected during the survey. Due to the unsuitability of the site's habitat, none of those threatened species listed in Table 1 are considered likely to inhabit the site

5. Impacts of the Proposed Development

5.1 Biodiversity Conservation Act

Under Section 7.9 of the BC Act an application for development consent under Part 4 of the Environmental Planning and Assessment Act 1979 for State significant development is to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values. It is considered that the proposal is not likely to have a significant effect on biodiversity values as defined by the BC Act.

Therefore, an application for a BDAR waiver was prepared in accordance with the requirements of DPE (2018). The BDAR waiver was granted in November 2019 (attached at rear).

5.2 SEPP 44 Koala Habitat

An assessment of the proposed development site was undertaken to ascertain its suitability as Koala habitat. The procedures involved in such an assessment are outlined in State Environmental Planning Policy No. 44 - Koala Habitat Protection.

Step 1 - Is the land potential Koala habitat? - Yes
Ribbon Gum, which is listed as a Koala feed tree in the schedule to the SEPP, occurs on the land and constitutes more than 15% of the trees. Therefore, the land is potential Koala habitat.

Step 2 – Is the land core Koala habitat – No
No signs of the koala inhabiting the site were detected during the field survey. The site is disjunct from the known population of the Koala in the east of the Campbelltown LGA. Therefore, the development application may proceed without a plan of management being prepared for the Koala.

5.3 Commonwealth Environmental Protection & Biodiversity Conservation Act.

Under the EPBC Act an action will require approval from the Minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance (NES). Amongst other things, NES matters include those threatened species, migratory species, communities and World Heritage areas listed on the Act.

No NES matters occur on or adjacent to the site. Therefore, referral to the Federal Minister for the Environment to determine whether the proposed action is a controlled action is not required.

6. Environmental Management Measures and Safeguards

The only specific environmental management measure that is recommended in relation to ecological issues is the removal and/or control of weeds listed in Section 4.2.1(c). This should be done as per the recommendation of the NSW Department of Primary Industries (2020).

References

DEE (2020a) Protected Matters Search Tool. http://www.environment.gov.au/webgis-framework/apps/pmst/pmst-coordinate.jsf.

DEE (2020b) Species Profile and Threats Database. http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl

NSW Department of Primary Industries (2020). NSW WeedWise. https://weeds.dpi.nsw.gov.au/

NSW Department of Planning and Environment (2018). Biodiversity development assessment report waiver determinations for SSD and SSI applications.

OEH (2020a) Atlas of NSW Wildlife: Point records for the Sydney Basin. Point data downloaded January 2020.

OEH (2020b). Threatened species, populations and ecological communities of NSW. http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/.

OEH (2013), The Native Vegetation of the Sydney Metropolitan Area. Version 2.0. Office of Environment and Heritage, Department of Premier and Cabinet, Sydney.

Appendix A. Flora and fauna species of conservation significance previously recorded within the study region and a likelihood of their occurrence

Key

V - Vulnerable; E – Endangered; CE – Critically Endangered.

Species in **bold** have been detected within 5km of the study area (OEH 2020a).

Species not in bold are those which the Protected Matters Search Tool (DEE 2020a) predicted as occurring or are likely to have habitat within 5km of the study area

Species	**Status**		**Habitat (OEH 2020b; DEE 2020b)**	**Likelihood of Occurrence**
	EPBCA	**BCA**		
Asterolasia elegans	E	E	Open forest in sheltered gullies on Narrabeen sandstone in near Wisemans Ferry and the Colo River.	Low. Habitat absent
Allocasuarina glareicola	E	E	Restricted to the Penrith to Richmond area where it grows in Castlereagh woodland on lateritic soil. Found in open woodland with Eucalyptus parramattensis, Eucalyptus fibrosa, Angophora bakeri, Eucalyptus sclerophylla and Melaleuca decora.	Low. Habitat absent
Cynanchum elegans White-flowered Wax Plant	V	V	Usually on the edge of dry rainforest vegetation but also in littoral rainforest, coastal scrubs, Forest Red Gum woodland and Spotted Gum open forest/ woodland.	Low. Habitat absent
Hibbertia puberula	CE	CE	Known only from Tertiary alluvial soil along Airport Creek on Bankstown Airport	Low. Habitat absent
Gyrostemon thesioides	V	E	Grows on hillsides and riverbanks and may be restricted to fine sandy soils. Only ever been recorded at three sites: near the Colo, Georges and Nepean Rivers. The latter two not for 90 and 30 years respectively,	Low. No habitat present
Leucopogon exolasius Woronora Beard-heath	V	V	In woodland on sandstone along the upper Georges River area and Heathcote National Park.	Low. Habitat absent
Acacia bynoeana	V	E	Occurs in heath or dry sclerophyll forest on sandy soils preferring open, sometimes slightly disturbed sites such as trail margins, edges of roadside spoil mounds and in recently burnt patches.	Low. Habitat absent

Acacia pubescens	V	V	Open woodland and forest, in a variety of plant communities, including Cooks River/ Castlereagh Ironbark Forest, Shale/ Gravel Transition Forest and Cumberland Plain Woodland.	Low. Habitat absent
Haloragis exalata subsp. exalata Wingless Raspwort	V	V	Protected and shaded damp situations in riparian habitats.	Low. Habitat absent
Eucalyptus benthamii Camden White Gum	V	V	Open forest in alluvial soils along the Nepean River and its tributaries.	Low. Habitat not present.
Eucalyptus scoparia **Wallangarra White Gum**	V	E	Northern tablelands species frequently planted in gardens and parks well outside its natural distribution.	Low. Site well beyond habitat area.
Melaleuca deanei Deane's Melaleuca	V	V	Heath and woodland on clay-influenced sandstone ridgetops.	Low. Habitat not present.
Persoonia bargoensis Bargo Geebung	E	E	Occurs in woodland or dry sclerophyll forest on sandstone in a small area south-west of Sydney on the western edge of the Woronora Plateau and the northern edge of the Southern Highlands.	Low. Outside species' range.
Persoonia hirsuta **Hairy Geebung**	E	E	Woodland to dry sclerophyll forest on clayey and gravelly laterite.	Low. Habitat absent.
Grevillea parviflora subsp. parviflora	V	V	In a range of vegetation types from heath and shrubby woodland to open forest on sandy or light clay soils usually over thin shales.	Low. Habitat absent.
Pimelea spicata **Spiked Rice-flower**	E	E	On the Cumberland Plain it is associated with Grey Box and Ironbark on well-structured clay soils.	Low. Formerly suitable habitat now heavily modified.
Pomaderris brunnea Rufous Pomaderris	V	V	Moist woodland or forest on clay and alluvial soils of flood plains and creek lines.	Low. Formerly suitable habitat heavily modified.
Pelargonium sp. striatellum (G.W.Carr 10345) Omeo Stork's-bill	E		Just above the high water level of irregularly inundated or ephemeral lakes.	Low. Habitat absent.
Cryptostylis hunteriana Leafless Tongue-orchid	V	V	Occurs in a range of communities, including swamp-heath and woodland.	Low. Habitat absent.
Genoplesium baueri **Yellow Gnat-orchid**	E	E	Moss gardens on sandstone outcrops	Low. Habitat not present.
Pterostylis saxicola **Sydney Plains Greenhood**	E	E	Known from Forest Red Gum woodland in the Illawarra. Apparently extinct in western Sydney.	Locally extinct.
Thelymitra kangaloonica Kangaloon Sun-orchid	CE	CE	Only known from three swamps that are above the Kangaloon Aquifer in the Moss Vale/ Kangaloon/ Fitzroy Falls area.	Low. Habitat absent.

Thesium australe	V	V	Occurs in grassland on coastal headlands or grassland and grassy woodland away from the coast. Often found in association with Kangaroo Grass (Themeda australis).	Low. Locally extinct (local record is from 1830).

Species	**Status EPBCA**	**BCA**	**Habitat (OEH 2020b)**	**Likelihood of Occurrence**
FAUNA				
REPTILES				
Hoplocephalus bungaroides Broad-headed Snake	E	E	Confined to sandstone bushland, within approximately 250 km of Sydney. It shelters in rock crevices and under flat sandstone rocks on exposed cliff edges during autumn, winter and spring; and moves to shelters in hollows in large trees within 200 m of escarpments in summer.	Low. Habitat absent.
FROGS				
Heleioporus australiacus Giant Burrowing Frog	V	V	Heath, woodland and open dry sclerophyll forest on a variety of soil types except those that are clay based	Low. Habitat absent.
Pseudophryne australis Red-crowned Toadlet		V	Almost totally confined to drainage lines in areas of Hawkesbury Sandstone, especially those that support weathered shale lenses.	Low. Habitat absent.
Litoria aurea Green and Golden Bell Frog	V	E	Marshes, dams and stream-sides, particularly those containing bullrushes (Typha spp.) or spikerushes (Eleocharis spp.). Optimum habitat includes water-bodies that are unshaded, free of predatory fish such as Plague Minnow (Gambusia holbrooki), have a grassy area nearby and diurnal sheltering sites available.	Low. Habitat absent.
Litoria littlejohnii Littlejohn's Tree Frog	V	V	Forages in heath and breeds in the upper reaches of permanent streams and in perched swamps.	Low. Habitat absent.
Litoria raniformis Southern Bell Frog	V	E	Permanent or ephemeral Black Box/Lignum/Nitre Goosefoot swamps, Lignum/Typha swamps and River Red Gum swamps or billabongs along floodplains and river valleys.	Low. Outside species' range.
BIRDS				
Common Sandpiper Actitis hypoleucos	M		Wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins or rocky shores and rarely on mudflats.	Low. Habitat absent.

Species	Status EPBCA BCA	Habitat (OEH 2020b)	Likelihood of Occurrence
Sharp-tailed Sandpiper Calidris acuminata	M	Muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline salt lakes inland	Low. Habitat absent.
Calidris ferruginea Curlew Sandpiper	CE	Non-breeding summer migrant intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes and lagoons near the coast, and ponds in saltworks and sewage farms. They are also recorded inland, though less often, including around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters.	Low. Habitat absent
Pectoral Sandpiper Calidris melanotos	M	shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands	Low. Habitat absent
Numenius madagascariensis Eastern Curlew	CE	Non-breeding summer migrant intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes and lagoons near the coast, and ponds in saltworks and sewage farms. They are also recorded inland, though less often, including around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters.	Low. Habitat absent
Tringa nebularia Common Greenshank	M	A wide variety of inland wetlands and sheltered coastal habitats of varying salinity. It occurs in sheltered coastal habitats, typically with large mudflats and saltmarsh, mangroves or seagrass. Habitats include embayments, harbours, river estuaries, deltas and lagoons and are recorded less often in round tidal pools, rock-flats and rock platforms. The species uses both permanent and ephemeral terrestrial wetlands, including swamps, lakes, dams, rivers, creeks, billabongs, waterholes and inundated floodplains, claypans and saltflats.	Low. Habitat absent
Rostratula benghalensis s. lat. Painted Snipe	E,M E	Fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber.	Low. Habitat absent

Species	Status EPBCA	Status BCA	Habitat (OEH 2020b)	Likelihood of Occurrence
Gallinago hardwickii Latham's Snipe	M		Flooded meadows, seasonal or semi-permanent swamps, or open waters and surrounding habitats.	Low. Habitat absent
Botaurus poiciloptilus Australasian Bittern	E	E	Permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes (Typha spp.) and spikerushes (Eleocharis spp.).	Low. Habitat absent
Ardea alba Great Egret	M		Variety of wetland habitats including swamps and marshes; margins of rivers and lakes; damp or flooded grasslands, pastures or agricultural lands; reservoirs; sewage treatment ponds; drainage channels; salt pans and salt lakes; salt marshes; estuarine mudflats, tidal streams; mangrove swamps; coastal lagoons; and offshore reefs.	Low. Habitat absent
Ardea ibis **Cattle Egret**	M		Forages in low lying grasslands, improved pastures, croplands and grazing areas. Roosts in trees, or amongst ground vegetation in or near lakes and swamps.	Low. Habitat absent
Pandion haliaetus Osprey	M	V	Coasts and estuaries	Low. Habitat absent
Haliaeetus leucogaster **White-bellied Sea-Eagle**	M		Forages over large areas of open water (e.g. rivers, estuaries, seas) and their margins. Generally, breeds in tall open forest or woodland adjacent to these habitats.	Low. Habitat absent
Hieraaetus morphnoides **Little Eagle**		V	Open eucalypt forest, woodland or open woodland	Low. Habitat absent
Square-tailed Kite		V	Found in a variety of timbered habitats including dry woodlands and open forests. Shows a preference for timbered watercourses.	Low. Habitat absent
Callocephalon fimbriatum **Gang-gang Cockatoo**		V	Forest and woodland containing hollow-bearing trees.	Low. Habitat absent.
Calyptorhynchus lathami **Glossy Black-Cockatoo**		V	Eucalypt woodland and feeds almost exclusively on casuarina fruit.	Low. Rarely feeds on Swamp Oak and no chewed cones found..
Glossopsitta pusilla **Little Lorikeet**		V	Eucalyptus forest and woodland, particularly along water courses.	Low. Habitat absent.
Lathamus discolor **Swift Parrot**	E	E	Non-breeding migrant to Australian south-east mainland from Tasmania between March and October. Occurs in areas where eucalypts are flowering profusely or where there is abundant lerp (from sap-sucking bugs) infestations. Favoured feed trees include winter flowering species	Low. Habitat absent.

Species	Status EPBCA BCA	Habitat (OEH 2020b)	Likelihood of Occurrence
		such as Swamp Mahogany Eucalyptus robusta, Spotted Gum Corymbia maculata, Red Bloodwood C. gummifera, Mugga Ironbark E. sideroxylon, and White Box E. albens. Commonly used lerp infested trees include Inland Grey Box E. microcarpa, Grey Box E. moluccana and Blackbutt E. pilularis.	
Ninox strenua **Powerful Owl**	V	A range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. It preys mainly on arboreal mammals and nest in large tree hollows.	Low. Habitat absent
Merops ornatus Rainbow Bee-eater	M	Breeding migrant to southern Australia occurring in usually occurs in open, cleared or lightly-timbered areas that are often, but not always, located in close proximity to permanent water. Nests in burrows constructed in the banks of rivers, creeks or dams, or similar exposed substrates.	Low. Habitat absent
Cuculus saturatus Oriental Cuckoo	M	Forest and woodland. Uncommon in western Sydney.	Low. Habitat absent
Chrysococcyx osculans Black-eared Cuckoo		Dry woodlands, scrublands, mallee, mulga, lignum, saltmarsh, riverside thickets (Pizzey & Knight undated).	Low. Habitat absent
Apus pacificus Fork-tailed Swift	M	Forages for insects over a wide variety of habitats	Moderate. Species may forage aerially over site but unlikely to be affected proposed action.
Hirundapus caudacutus White-throated Needletail	M	Forages for insects over a wide variety of habitats	Moderate. Species may forage aerially over site but unlikely to be affected proposed action.
Motacilla flava Yellow Wagtail	M	Rare visitor to SE Australia. Inhabits saltmarsh.	Low. Habitat absent.
Myiagra cyanoleuca Satin Flycatcher	M	Heavily vegetated gullies in eucalypt-dominated forests and taller woodlands, and on migration, occur in coastal forests, woodlands groves and drier woodlands and open forests	Low. Habitat absent.

Species	Status EPBCA	Status BCA	Habitat (OEH 2020b)	Likelihood of Occurrence
Symposiachrus melanopsis Black-faced Monarch	M		Rainforests, wet sclerophyll forest, scrubs and gullies. More open woodland during migration (Pizzey 1997).	Low. Habitat absent.
Symposiachrus trivirgatus Spectacled Monarch	M		Understorey of rainforests, thickly wooded, waterside vegetation (Pizzey 1997).	Low. Habitat absent.
Rhipidura rufifrons Rufous Fantail	M		Undergrowth of rainforest and wet eucalypt forest. On migration may turn up in urban areas (Pizzey 1997).	Low. Habitat absent.
Dasyornis brachypterus brachypterus Eastern Bristlebird	E	E	Dense, low vegetation including heath and open woodland with a heath understorey.	Low. Habitat absent.
Anthochaera phrygia **Regent Honeyeater**	E,M	CE	Inhabits dry open forest and woodland, particularly Box-Ironbark woodland, riparian forests of River Oak and occasionally planted or remnant trees in urban areas. Woodland habitats have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes.	Low. Habitat absent.
Melithreptus gularis gularis **Black-chinned Honeyeater**		V	upper levels of drier open forests or woodlands dominated by box and ironbark eucalypts, especially Mugga Ironbark (Eucalyptus sideroxylon), White Box (E. albens), Inland Grey Box (E. microcarpa), Yellow Box (E. melliodora), Blakely's Red Gum (E. blakelyi) and Forest Red Gum (E. tereticornis).	Low. Habitat absent.
Grantiella picta Painted Honeyeater	V	V	A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus Amyema.	Low. Habitat absent.
Daphoenositta chrysoptera **Varied Sittella**	V		Eucalypt forests and woodlands, especially rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland	Low. Habitat absent.
Artamus cyanopterus cyanopterus **Dusky Woodswallow**		V	dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and groundcover of grasses or sedges and fallen woody debris.	Low. Habitat absent.
MAMMALS				
Dasyurus maculatus Spotted-tailed Quoll	V	V	Wet and dry sclerophyll forests through to rainforests. Males known to move up to 8km in one night.	Low. Habitat absent.

Species	Status EPBCA	Status BCA	Habitat (OEH 2020b)	Likelihood of Occurrence
Phascolarctos cinereus Koala	V	V	Forest and woodland containing preferred feed tree species.	Low. Habitat absent.
Cercartetus nanus Eastern Pygmy-possum		V	Heathland, woodland and rainforest that support a large number of proteaceous and myrtaceous plants.	Low. Habitat absent.
Petauroides volans Greater Glider	V		Moist eucalypt forests with relatively old trees and abundant hollows. Single local record from Maroota Ridge SCA 1996.	Low. Habitat absent.
Potorous tridactylus tridactylus Long-nosed Potoroo (SE mainland)	V	V	Coastal heaths and dry and wet sclerophyll forests.	Low. Habitat absent.
Petrogale penicillata Brush-tailed Rock-wallaby	V	E	Rocky escarpments, outcrops and cliffs with a preference for complex structures with fissures, caves and ledges facing north. Known from near Warragamba Dam.	Low. Habitat absent.
Pteropus poliocephalus Grey-headed Flying-fox	V	V	Roosts in large camps in moist gullies, the nearest being at Warwick Farm (OEH 2016a). Forages widely on fruiting and flowering trees.	Low. Habitat absent.
Pseudomys novaehollandiae New Holland Mouse	V		Open heathlands, open woodlands with a heathland understorey and vegetated sand dunes	Low. Habitat absent.
Chalinolobus dwyeri Large-eared Pied Bat	V	V	Roosts in caves (near their entrances), crevices in cliffs, old mine workings and in the disused, bottle-shaped mud nests of the Fairy Martin (Hirundo ariel), frequenting low to mid-elevation dry open forest and woodland close to these features.	Low. Habitat absent.
Mormopterus norfolkensis Eastern Freetail-bat	V		Dry sclerophyll forest and woodland east of the Great Dividing Range. Roosts mainly in tree hollows but will also roost under bark or in man-made structures	Low. Habitat absent.
Scoteanax rueppellii Greater Broad-nosed Bat	V		Variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, though it is most commonly found in tall wet forest. Usually roosts in tree hollows, but has also been found in buildings.	Low. Habitat absent.
Miniopterus schreibersii oceanensis Eastern Bentwing-bat	V		Roosts in caves, mines tunnels etc. Forages over large areas of open forest.	Low. Habitat absent.
Miniopterus australis Little Bentwing-bat	V		Roosts in caves, mines tunnels etc. Forages over large areas of open forest.	Low. Habitat absent.

Species	Status EPBCA BCA	Habitat (OEH 2020b)	Likelihood of Occurrence
INVERTEBRATES			
Meridolum corneovirens **Cumberland Land Snail**	V	Intact remnants of Cumberland Plain Woodland where it lives amongst litter of bark, leaves and logs, or shelters in loose soil around grass clumps. Occasionally shelters under rubbish.	Low. Habitat absent.

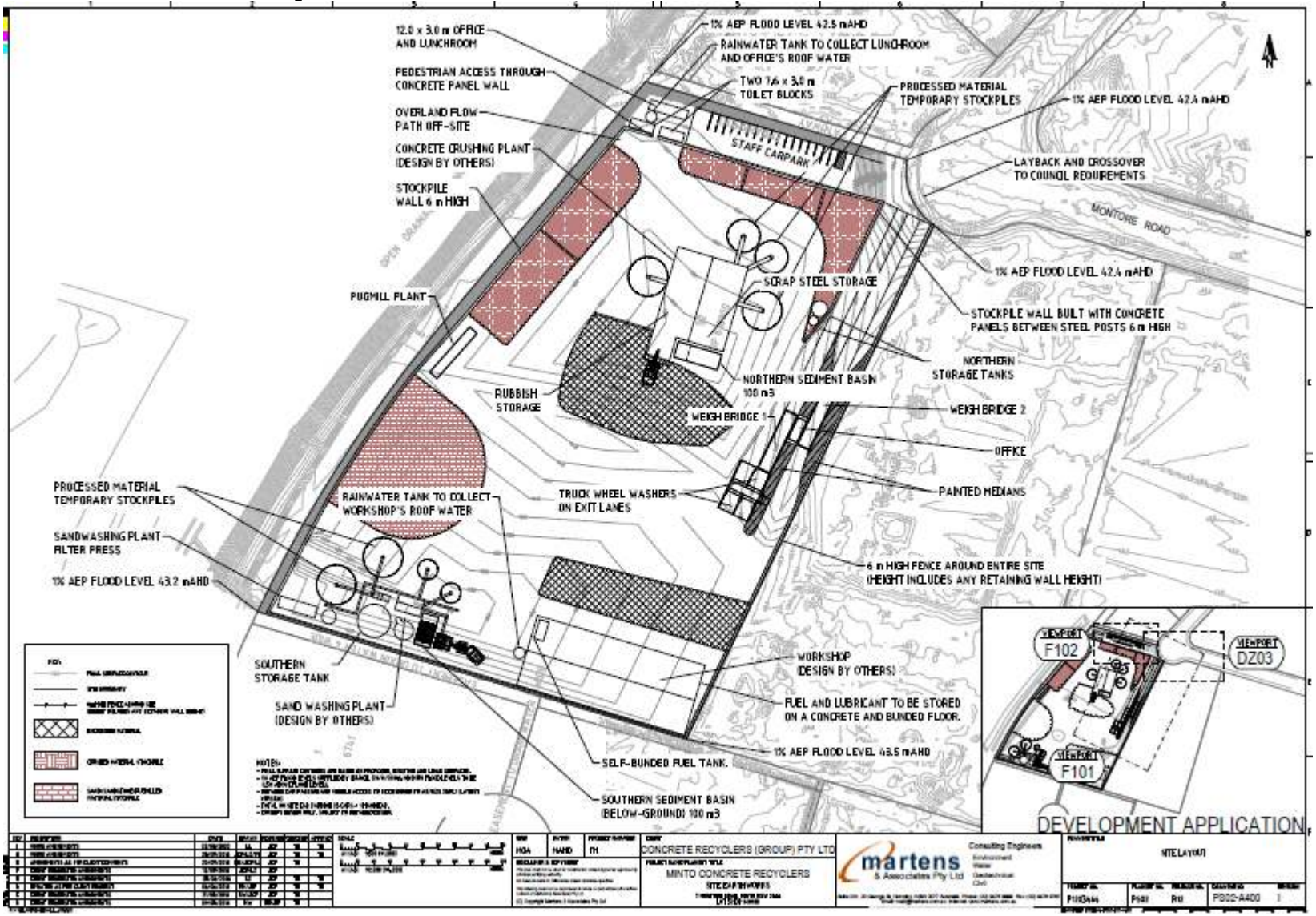
Appendix B – Plant Species List

* denotes introduced species

Scientific Name	Common Name
MAGNOLIOPSIDA	**FLOWERING PLANTS**
MAGNOLIIDAE	**DICOTYLEDONS**
APIACEAE	
Dichondra repens	Kidney Weed
Foeniculum vulgare*	Fennell
APOCYNACEAE	
Araujia sericifera *	Moth Vine
Gomphocarpus fruticosus*	Narrow-leaved Cotton Bush
ASTERACEAE	
Bidens pilosa*	Cobbler's Pegs
Cirsium vulgare*	Spear Thistle
Conyza canadensis*	Fleabane
Hypochaeris radicata*	Catsear
Onopordum illyricum subsp. illyricum*	Illyrian Thistle
Senecio madagascariensis*	Fireweed
Sonchus asper*	Prickly Sowthistle
Sonchus oleraceus*	Sowthistle
BORAGINACEAE	
Echium plantagineum*	Patterson's Curse
BRASSICACEAE	
Brassica sp*	
Lepidium sp*	
CASUARINACEAE	
Casuarina glauca	Swamp Oak
CHENOPODIACEAE	
Chenopodium album*	Fat Hen
Einadia nutans	Climbing Saltbush
CONVOLVULACEAE	
Convolvulus erubescens	Blushing Bindweed
EUPHORBIACEAE	
Ricinus communis*	Castor Oil Plant
FABACEAE	
Sub-Family Faboideae	
Genista monspessulana*	Montpellier Broom
Hardenbergia violacea	Purple Coral Pea
Trifolium angustifolium*	Narrow-leaved Clover
Vicia sp*	Vetch
Sub-family Mimosoidea	
Acacia parramattensis	Parramatta Green Wattle
MALVACEAE	
Modiola caroliniana*	Red-flowered mallow
Sida rhombifolia*	Paddy's Lucerene
MELIACEAE	
Melia azedarach var. australasica	White Cedar
MORACEAE	
Mora alba*	Mulberry
MYRSINACEAE	
Anagallis arvensis*	Scarlet Pimpernel
MYRTACEAE	
Callistemon sp*	Bottlebrush

Scientific Name	Common Name
Eucalyptus mannifera*	Brittle Gum
Eucalyptus viminalis*	Ribbon Gum
OLEACEAE	
Fraxinus pennsylvanica*	Green Ash
Ligustrum lucidum*	Large-leaf Privet
Olea europaea subsp. cuspidata*	African Olive
PLANTAGINACEAE	
Plantago lanceolata*	Lamb's Tongue
POLYGONACEAE	
Rumex crispus*	Curled Dock
ROSACEAE	
Rubus ulmifolius*	Blackberry
RUBIACEAE	
Asperula conferta	Common Woodruff
ULMACEAE	
Fraxinus angustifolius*	Narrow-leafed Ash
VERBENACEAE	
Verbena bonariensis*	Purple-top
Verbena litoralis*	
LILIIDAE	MONOCOTYLEDONS
CYPERACEAE	
Cyperus eragrostis*	Umbrella Sedge
JUNCACEAE	
Juncus subsecundus	Common Rush
POACEAE	
Avena sativa*	Wild Oats
Cenchrus setaceus*	Fountain Grass
Cenchrus clandestinum*	Kikuyu
Chloris gayana*	Rhodes Grass
Cynodon dactylon*	Couch
Eragrostis curvula*	African Lovegrass
Lolium perrene*	Perennial Ryegrass
Microlaena stipoides	Weeping Meadow Grass
Nassella neesiana*	Chilean Needle Grass
Paspalum dilatatum*	Paspalum
Themeda australis	Kangaroo Grass
TYPHACEAE	
Typha orientalis	Cumbungi

Attachment 1. Plan of Proposal



Attachment 2 (overleaf) BDAR waiver.

NSW GOVERNMENT | Planning, Industry & Environment

Mr Neil Kennan
Nexus Environmental Planning Pty Ltd
P.O. Box 212
CONCORD NSW 2137

Our ref: EF19/12317

Dear Mr Kennan,

Subject: Request to waive requirement to prepare a Biodiversity Development Assessment Report

I refer to your correspondence received on 5 September 2019 seeking to waive the requirement to prepare a biodiversity development assessment report (BDAR) to be submitted with the state significant development application for Resource Recovery Facility Minto.

Description of proposed development

The construction and operation of a resource recovery facility to receive and process up to 155,000 tonnes per annum (tpa) of recyclable materials comprising fully commingled recyclable materials (FCM) from kerbside collections and source-separated cardboard and paper from commercial collections.

Under section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act):

"*Any such application is to be accompanied by a biodiversity assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on the biodiversity values*".

This letter is to confirm that the Secretary of the Department of Planning, Industry and Environment and the Chief Executive of the Environment, Energy and Science Division have determined that the proposed development as described above is not likely to have any significant impact on biodiversity values and that a BDAR is therefore not required to accompany any application for development consent for the proposed development.

Evidence that the Chief Executive of the Environment, Energy and Science Division has determined that the proposed development is not likely to have any significant impacts on biodiversity values is attached and dated 24 October 2019.

If there are any amendments to the proposed development, a fresh request for a BDAR waiver determination will be required or a BDAR may need to be prepared.

Should you have any further enquiries, please contact Katelyn Symington, Planning and Assessment, at the Department on (02) 8275 1216.

Yours sincerely

C. Ritchie 4/11/19

Chris Ritchie
Director
Industry Assessments, Planning and Assessment
(as nominee of the Secretary)