

# APPENDIX J BIODIVERSITY ASSESSMENT MEMORANDUM

Minto Resource Recovery Facility Response to Submissions

15 DECEMBER 2017

Incorporating



**Date** 3/11/2017  
**To** Anita Chiha, Mark Tartak, Shivesh Singh  
**From** Bradley Searle, Claire Hodgson  
**Copy to** Ed Cooper, Jane Rodd and Kate Carrol  
**Subject** Bingo Minto Resource Recovery Facility: Biodiversity Assessment

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## 1 INTRODUCTION

Approval is sought to increase the processing capacity of the existing Minto Resource Recovery Facility, located at 13 Pembury Road, Minto (the Proposal site), from 30,000 tonnes per annum (tpa) to 220,000 tpa. An approval will supersede previous approvals issued over the Proposal site and provide a new suite of operating requirements and mitigation measures commensurate to the increased processing capacity. The facility would continue to process general solid waste (non-putrescible), as described in the Waste Classification Guidelines, 2014, prepared by the NSW Environment Protection Authority (EPA). The facility is defined as a resource recovery facility under Part 3, Division 23 of *State Environmental Planning Policy (Infrastructure)*, 2007 (SEPP).

Amendments are now proposed to the Proposal based on submissions provided by government agencies and the community, as part of design progression, and to provide additional clarity where relevant. To accommodate for design changes as a result of the Proposal Amendments, minor alterations to landscaping would be required. The provision of parking spaces on the western boundary of the Proposal site would require minor clearing of the existing landscaped area. Minor clearing would also be required to construct the additional car spaces provided immediately to the west of the Proposal site access point. Appendix C of the Response to Submissions Report shows the proposed clearing locations.

This memo has been prepared to assess the potential biodiversity impacts associated with the Proposal Amendments on the Minto Resource Recovery Facility. It outlines the results of a preliminary assessment for biodiversity values based on desktop review of existing data and site inspection. The assessment focused on the potential for threatened species, population and communities listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/or the NSW *Biodiversity Conservation Act 2016* (BC Act) to occur on the Proposal site.

## 2 DESKTOP REVIEW

### 2.1 Vegetation mapping

OEH (2013) mapped the native vegetation of the Sydney Metro Catchment Management Authority (CMA) Area. No native vegetation is mapped on the site. The closest area of mapped native vegetation is a 0.9 hectare patch of Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin approximately 0.35 kilometres north-west of the Proposal site.

## 2.2 Database search

A search of the NSW Bionet database, managed by the NSW Office of Environment and Heritage (OEH), was undertaken on 17 October 2017. A coordinate search was undertaken to identify threatened species records listed under the BC Act to within 10 kilometres of the Proposal site (OEH 2017).

There are records of 18 threatened flora species within 10 kilometres of the Proposal site. The closest threatened flora species record is *Pimelea spicata*, located approximately one km to the east of the Proposal site. The record is dated from 2013.

There are records of 43 threatened fauna species within 10 kilometres of the Proposal site. The closest record of threatened fauna species is a Cumberland Plain Land Snail (*Meridolum corneovirens*) located approximately one km east of the Proposal site. This record is dated from 1999.

A search of the Protected Matters Search Tool, managed by the Commonwealth Department of the Environment (DoE) was undertaken on 17 October 2017. The search identified that a total of 27 flora species and 24 fauna species listed under the EPBC Act are known to occur, likely to occur or may occur within 10 kilometres of the site (DoEE 2017)

## 2.3 Site inspection

Arcadis ecologists Jane Rodd and Kate Carroll conducted a Proposal site inspection of 13 Pembury Road, Minto on 19 October 2017. The vegetation in the northern portion of the Proposal site and immediately adjoining the western boundary was traversed by foot and notes were made on the vegetation type, condition and structure as well as potential habitat for threatened flora and fauna.

The northern part of the Proposal site supports planted vegetation along the fencelines, mostly of cultivated non-local native shrubs such as *Banksia integrifolia*, *Grevillea* “Honey Gem”. *Grevillea hookeriana*, *Melaleuca armillaris*, *Callistemon* “Little John” and *Callistemon viminalis*. Exotic species in this area included *Eriobotrya japonica* (Loquat) and *Morus alba* (White Mulberry). The ground layer was predominantly composed of mulch, however there were some planted exotic ornamental species such as *Agave attenuata*, *Aeonium arboreum* var. *atropurpureum* and *Clivia miniata*. In the north-west of the site there were a number of exotic pasture weeds and grasses growing in the mulch, including *Ehrharta erecta* (Panic Veldt-grass), *Brassica* sp. and *Plantago lanceolata* (Plantain).



Planted vegetation adjoining northern fenceline



Planted vegetation adjoining northern fenceline

The vegetation along the western boundary of the Proposal site consists of scattered trees over a disturbed understorey. The strip of vegetation adjoining the western boundary appears to be on fill. Two planted trees of the non-local native species *Eucalyptus nicholii* (Narrow-leaved Black Peppermint) are located in the northern strip of grassland adjoining the western boundary. Further to the south are stands of *Casuarina glauca* (Swamp Oak) and a few trees of the local native species *Eucalyptus tereticornis*

(Forest Red Gum) and *Eucalyptus moluccana* (Grey Box). Midstorey species observed in this area included the local native species *Pittosporum undulatum* (Sweet Pittosporum), the non-local native species *Acacia saligna* and the exotics *Olea europaea* subsp. *cuspidata* (African Olive), *Senna pendula* var. *glabrata* and *Cotoneaster* sp. The ground layer is dominated by exotic grasses, with dense cover of *Pennisetum clandestinum* (Kikuyu) and *Chloris gayana* (Rhodes Grass). Native ground layer species are largely absent, except for a small number of *Einadia trigonos* (Fishweed) growing around the base of one of the eucalypts.



Planted non-local native tree outside western boundary



Stands of *Casuarina glauca* outside western boundary

### 3 FAUNA HABITAT

The Proposal site has limited fauna habitat values. It is located in an industrial precinct and lies adjacent to a modified drainage line. It is largely devoid of vegetation with the exception of two patches at the northern end which contain planted trees and shrubs with a mulched understorey. Fruiting trees and flowering shrubs were present which would provide foraging habitat for birds and arboreal mammals that are adapted to urban and industrial environments. This includes common urban birds observed at the site including Noisy Miner (*Manorina melanocephala*), Common Myna (*Sturnus tristis*) and Australian Magpie (*Gymnorhina tibicen*).

## 4 BIODIVERSITY CONSTRAINTS

### 4.1 Threatened ecological communities

There are no native vegetation communities within the Proposal site. The native trees along the western boundary of the Proposal site are growing in fill and the groundlayer beneath them is composed almost entirely of exotic grasses and pasture weeds. The vegetation on and adjoining the Proposal site does not conform to any threatened ecological communities listed under the TSC Act or the EPBC Act.

### 4.2 Threatened species

*Eucalyptus nicholii*, recorded along the western boundary of the site, is listed as Vulnerable under the EPBC Act and TSC Act. *Eucalyptus nicholii* is endemic to the Northern Tablelands of NSW, occurring from Nundle to north of Tenterfield (Brooker and Kleinig 2006, OEH 2014). The species is widely planted as a street tree in south-eastern Australia. These planted individuals are not of conservation significance.

There is no suitable potential habitat for locally occurring threatened flora species either within or adjacent to the Proposal site.



Vegetation on the Proposal site is unlikely to provide habitat to any terrestrial threatened fauna with the possible exception of Grey-headed Flying-fox (*Pteropus poliocephalus*), listed as Vulnerable under the EPBC Act and BC Act. The species is known to forage on *Banksia integrifolia*, which are present.

## 5 BIODIVERSITY ASSESSMENT REQUIREMENTS

The *Biodiversity Conservation Act 2016* was enacted on 25 August 2017. The Savings and Transitional arrangements relating to pending planning applications are outlined in the *Biodiversity Conservation (Savings and Transitional) Regulation 2017*. Relevant to the Amended Proposal, a pending planning approval is defined as an application for planning approval (or for the modification of a planning approval) made within 18 months of the 25 August 2017, provided the Secretaries' Environmental Assessment Requirements (SEARs) were issued prior to the 25 August 2017. This is the case for the Proposal, therefore the NSW Biodiversity Offset Scheme (underpinned by the Biodiversity Assessment Method) does not apply.

Further, the SEARs for the Proposal (SSD 7462) do not include biodiversity as a key issue. As such, there are no specific assessment requirements that must be satisfied. Notwithstanding, the provisions of the Commonwealth EPBC Act and NSW BC Act make it an offense to harm threatened species, populations and ecological communities (biota), or their habitat. An assessment of the significance of potential impacts to EPBC Act and BC Act listed biota must therefore be made.

No threatened flora species or ecological communities occur or have the potential to occur within the Proposal site. One threatened fauna species is considered to have a moderate likelihood of occurring within the Proposal site. As such, the significance of potential impacts to Grey-headed Flying-fox have been assessed in accordance with the Commonwealth Significant Impact Guidelines 1.1 (DoEE 2013) and Section 7.3 of the BC Act. The full details of these assessments are included in Attachment 1. In summary, these significance assessments determined that the Amended Proposal would not result in a significant impact therefore referral to the Department of Environment and Energy or further assessment under the BC Act is not required.

## 6 CONCLUSIONS

The biodiversity assessment of Amended Proposal for the Bingo Minto Resource Recovery Facility found that the Proposal site contains predominantly planted native (both endemic and non-endemic) species and opportunistic weeds. Although this vegetation provides some visual amenity, it is of low conservation significance. No threatened flora species or ecological communities occur or have the potential to occur within the Proposal site. Potential foraging resources for Grey-headed Flying-fox were recorded within the Proposal site. These resources would not support a permanent camp or maternity camp and their removal would result in a minor loss of foraging resources within the species' home range. The Amended Proposal would not result in a significant impact to this species.

The Proposal site is considered to be of relatively low biodiversity value therefore no specific mitigation is deemed necessary.

## 7 REFERENCES

- Brooker and Kleinig 2006. Field Guide to Eucalypts
- DECCW 2009. Draft National Recovery Plan for the Grey-headed Flying-fox
- DoEE 2013. Matters of National Environmental Significance. Significant impact guidelines 1.1
- DoEE 2117. Protected Matters Search Tool
- OEH 2013. The Native Vegetation of the Sydney Metropolitan Catchment Management Area
- OEH 2014. Narrow-leaved Black Peppermint *Eucalyptus nicholii* profile
- OEH 2017. Bionet Atlas of NSW Wildlife

# ATTACHMENT 1

## Grey-headed Flying-fox Assessments of Significance

### EPBC ACT

Grey-headed Flying-fox is listed as Vulnerable under the EPBC Act. In NSW, the Grey-Headed Flying-Fox occurs along the east coast, eastern slopes of the Great Dividing Range and the tablelands. The species may be found in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps, while additional foraging is provided by urban gardens and cultivated fruit crops.

A large number of Grey-Headed Flying-Foxes have been recorded in the locality including a record approximately 1.2km north of the site from 2002 (OEH 2017). The Proposal site offers a small area of marginal foraging habitat to the species, due to the presence of a known feed tree - *Banksia integrifolia* (Coastal Banksia). This tree occurs in planted vegetation at the northern end of the site.

**An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:**

#### **Lead to a long-term decrease in the size of an important population of a species**

Important populations are those that may be identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal;
- populations that are necessary for maintaining genetic diversity; and/or
- populations that are near the limit of the species range.

The Grey-headed Flying-fox has no separate or distinct populations. The species constantly exchanges genetic information between camps throughout its geographic range. The Proposal site is not used for permanent roosting or as a maternity camp. It is not at the limit of the species range. The removal of a small amount of potential foraging habitat for the species would not lead to a long-term decrease in the size of the population, including any local camps.

#### **Reduce the area of occupancy of an important population**

The Amended Proposal would result in the removal of a very small amount of potential foraging habitat for the Grey-headed Flying-fox in an industrial and developed environment. This would not reduce the area of occupancy of the species.

#### **Fragment an existing important population into two or more populations**

The removal of potential foraging habitat for the Amended Proposal would not fragment the population of the Grey-Headed Flying-Fox into two or more populations.

#### **Adversely affect habitat critical to the survival of a species**

Habitat that is critical to the survival of the species as identified in the species' National Recovery Plan (DECCW 2009) is natural foraging habitat that meets at least one of the following criteria:

- Productive during winter and spring, when food bottlenecks have been identified
- Known to support populations of >30,000 individuals within a 50 kilometre radius (the maximum foraging distance of an adult)
- Productive during the final weeks of gestation, and during the weeks of birth, lactation and conception (September to May)
- Productive during the final stages of fruit development and ripening in commercial crops affected by Grey-headed Flying-foxes (months vary between regions)
- Known to support a continuously occupied camp

The Proposal site is unlikely to be critical to the survival of the species.

**Disrupt the breeding cycle of an important population**

There is no known maternity roosting camp of Grey-headed Flying-foxes at the Proposal site, nor could it support one. The breeding cycle of this species would not be disrupted as a result of the Amended Proposal.

**Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline**

The Amended Proposal would involve the removal of a small number of feed trees of the Grey-headed Flying-fox. This foraging resource does not comprise a significant area of foraging habitat within the locality such that the species is likely to decline.

**Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat**

The action is unlikely to result in the establishment of an invasive species that is harmful to the Grey-Headed Flying-Fox.

**Introduce disease that may cause the species to decline, or**

The action is highly unlikely to introduce disease that may cause the Grey-Headed Flying-Fox to decline.

**Interfere with the recovery of the species**

There is currently no approved Recovery Plan in place for the Grey-Headed Flying-Fox. A Draft National Recovery Plan for the Grey-headed Flying-fox was prepared in July 2009 (DECCW 2009). The Draft National Recovery Plan lists 13 specific objectives for the five-year timeframe of the Plan. Of these, two could be considered relevant to the Amended Proposal:

- Objective 1: To identify and protect foraging habitat critical to the survival of Grey-headed Flying-foxes throughout their range.
- Objective 2: To protect and increase the extent of key winter and spring foraging habitat of Grey-headed Flying-foxes.

The Amended Proposal is consistent with these two objectives of the Draft National Recovery Plan. The potential foraging habitat that would be removed as a result of the Amended Proposal is not likely to be key winter or spring foraging habitat nor is it likely to be critical to the survival of this species in the locality.

**Conclusion**

The Amended Proposal would require the removal of a small amount of potential foraging habitat for this species. The amount of potential foraging habitat to be cleared is not considered to be a significant area of habitat or of importance to the long-term survival of Grey-headed Flying-fox in the locality. As a result, it is considered unlikely that the Amended Proposal represents a significant impact to the vulnerable species Grey-headed Flying-fox. A Referral to the Minister is not required for this species.

## **BC ACT**

**The following is to be taken into account for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats:**

- a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,



There is no known maternity roosting camp of Grey-headed Flying-foxes at the Proposal site, nor could it support one. Though there is a small amount of potential foraging habitat at the Proposal site, this habitat is located in an industrial area, subject to frequent disturbance. It is unlikely to be important habitat for the Grey-headed Flying-fox. The removal of small amount of suboptimal foraging habitat and lack of impact to any breeding habitat means the proposal would be unlikely to impact any local viable populations of Grey-headed Flying-fox such that they are placed at risk of extinction.

- b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:**
  - i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or**
  - ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,**

Not applicable.

- c) in relation to the habitat of a threatened species or ecological community:**
  - i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and**

A few individual planted *Banksia integrifolia* that could provide foraging habitat for the Grey-headed Flying-fox would be removed for the proposal.

- whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and**

The Amended Proposal would not fragment or isolate habitat across the landscape. The vegetation to be removed is a very small amount of planted vegetation in an industrial landscape.

- i) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,**

The potential habitat to be removed is located in an industrial area, subject to frequent disturbance. It is unlikely to be important habitat for the long term survival of the Grey-headed Flying-fox.

- (a) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),**

There are no declared areas of outstanding biodiversity value at or near the proposal site. The proposal would not have an adverse effect on any areas of outstanding biodiversity value.

- (b) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.**

The proposal is not or is not part of a key threatening process.

## **Conclusion**

The Amended Proposal would require the removal of a small amount of potential foraging habitat for this species. The amount of potential foraging habitat to be cleared is not considered to be a significant area of habitat or of importance to the long-term survival of Grey-headed Flying-fox in the locality. As a result, it is considered unlikely that the Amended Proposal represents a significant impact to the vulnerable species Grey-headed Flying-fox. A Species Impact Statement is not required for this species.