

# Landscaping Plan Updates

## Waste Resource Recovery Facility

55 Martin Road, Badgerys Creek

Proposed Amendments to approved DA 263/2018

*By Ecological Consultants Australia Pty Ltd TA*

*Kingfisher Urban Ecology and Wetlands*

**Amendments September 2019**





## Landscape Report

The western end will be managed for weed management and bush regeneration in accordance with the Flora and Fauna Report Recommendations (see Figure 2 below), and the remaining of the lot towards the east for landscaping and native planting. Selected flora will depend on local nursery availability. Plants will be in the form of tube stock for native planting rather than larger pot sizes, grasses may be supplied as native grass mix for revegetation grass areas.



Figure 1. Site location. Source SixMaps 2019.



Figure 2a. Proposed weed management, bush regeneration and landscaping zones. Source base SixMaps 2018.

The bush regeneration and weed management/removal is to take place prior to commencement of Landscaping works and is to be conducted by experienced bush regenerators with a minimum of Certificate 3 in bush regeneration. It will consist of hand removal techniques, manual/mechanical

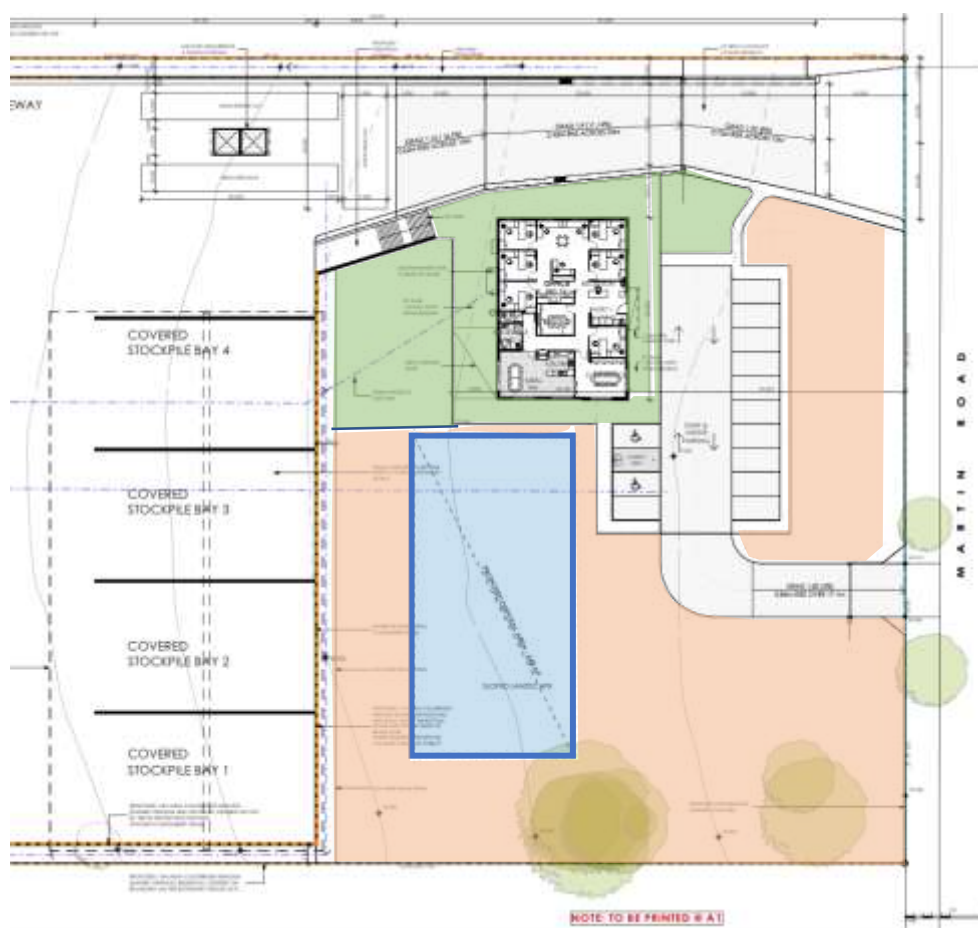
removal using bush regenerator and winter thermal (flame) weeding. This approach will reduce the amount of herbicide used and reduce the amount of off-target damage through spot on application.

Woody perennial weeds less than 2 metres in height will require cut and paint or scrape and paint bush regenerator techniques based on the germinating/epicormic behaviour of the plant (especially plants that tend to coppice or sucker).

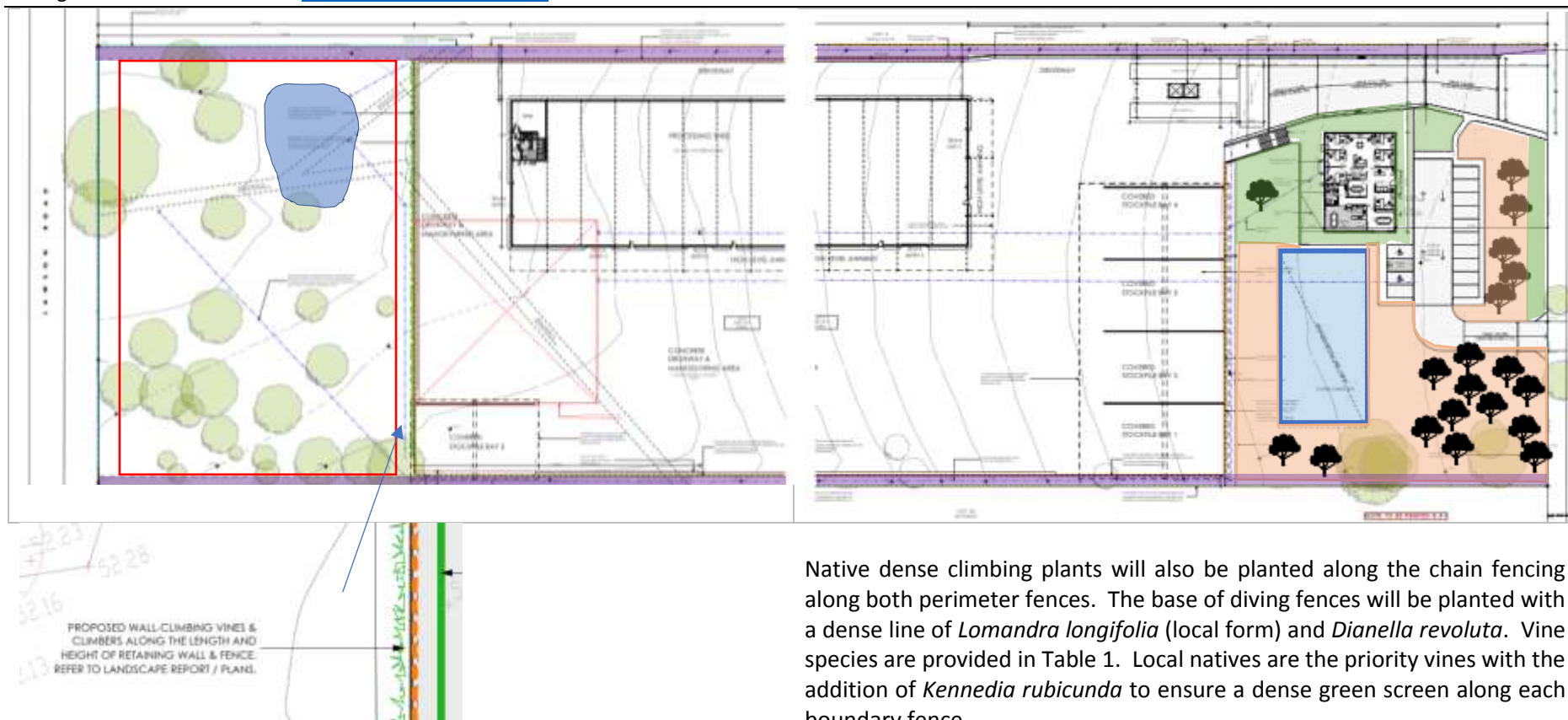
It is recommended that seed heads are removed prior to commencement of primary works. This would be best performed carefully by hand with secateurs with the aim of avoiding the spread flowers or seeds into planting zones.

See 'Flora and Fauna Report' Appendix III for further details. For key weed photo guide see Appendix VIII.

An effluent disposal zone is proposed covering 648m<sup>2</sup> – see SDS report (December 2018) for details. This has been located away from existing trees. Tree planting proposed close by (see Landscape layout below) will not be impacted by the disposal zone. Trees selected are species that are locally native and typical of floodplain environments and occasionally saturated soils. The key species to plant closest are: *Eucalyptus tereticornis* and *Meleuca decora*. Tree planting is set back to retain solar access to the disposal area.



**Figure 2b. Proposed disposal area.** Source pti architecture and AMJ Demolition and Excavation 23<sup>rd</sup> July 2019









Native dense climbing plants will also be planted along the chain fencing along both perimeter fences. The base of diving fences will be planted with a dense line of *Lomandra longifolia* (local form) and *Dianella revoluta*. Vine species are provided in Table 1. Local natives are the priority vines with the addition of *Kennedia rubicunda* to ensure a dense green screen along each boundary fence.

Figure 2. Bush regeneration and landscape map. Source of base plan provided by the client Source: pti Architects 23<sup>rd</sup> July 2019.

**Note: twenty (20) trees to be planted, at least fifteen (15) expected to reach maturity.**

**Table 2. Native planting zones and bush regeneration.**

Zone	Zone Mix	Area m <sup>2</sup> (approx.)	Number of plants (based on ~4/m <sup>2</sup> )
Orange 	Mixed shrubs	2,400	9,600
Light green 	Ground covers	2,250	9,000*
Light blue 	Damp vegetation	1,220	4,880
Red outline 	Bush regeneration	5,500	Depends on results post bush regeneration
Green line 	Retaining wall and boundary fences	(228 front 220 per fence) = 668 linear m <sup>2</sup>	Planting 1 vine every 25cm (4/ linear m) = 2,672 plants
	Trees to be planted NB: shrub planting at tree base to reduce maintenance and protect trees		20

\*Native grass seed mix may be used instead of tube stock.

The twenty trees that will be planted are to be tube stock size with the aim to reach maturity. These will be distributed with a 5-metre centre, this meaning at least a five-metre radius between each planting spot. Five trees are to be planted on the western side of the lot near Lawson Road, and fifteen on the eastern side of the lot near Martin Road. Underneath the trees 2 to 2.5 metres of shrubs are to be planted.






In the dam/stormwater area, there is to be a 20x20 metre planting of sedges and rushes. It is to be located depending on the direction of the water and the final direction of water soak. Wet-tolerant vegetation will be planted in drainage swale areas (see Stormwater plans for details) *Juncus* sp. and *Carex appressa* are recommended for this area.





Along both boundary fences and on the Lawson Rd side of the retaining wall, vines will be planted to cover fence and screen. Native species selected are robust and fast growing. The Lawson Rd wall will also be screened by the shrubs and trees on the western side of the lot. The area to be bush regenerated is 6000 m<sup>2</sup>. After the bush regeneration has occurred, a minimum of 4 native plants per square meter should be present and if not then planted. Boundary fences will have *Lomandra* and *Dianella* base and vines to cover vertical surfaces.






All ground surfaces are to be vegetated, if there is a discrepancy between landscaping plan and final on-ground location, for example of wetland or swale, planting to be modified complying with the actual site conditions. Table 1 summarises the plants proposed. No bare areas greater than 4x4m, should be present. All areas have been estimated by using the scale provided on the site plan of the development application.



**Table 1. Plants proposed for planting.****Note:** species in **red** are highly recommended and are to be prioritized for ordering. **Source of images:** Wikipedia.

Scientific Name	Common Name	Type	Purpose	Image
<b>TREES</b>				
<i>Angophora costata</i>  For planting in higher drier parts of the site. Some present on-site already.	Smooth-bark Apple	Tree	Habitat and canopy renewal	
<i>Eucalyptus moluccana</i>	Grey Box	Tree	Habitat and canopy renewal	
<i>Melaleuca decora</i> Plant closest to effluent disposal area	Paperbark	Tree	Habitat and canopy renewal Plant closest to effluent disposal area	
<i>Corymbia gummifera</i>	Red Bloodwood	Tree	Canopy renewal	
<i>Acacia decurrens</i>	Green Wattle	Tree	Canopy renewal	

Scientific Name	Common Name	Type	Purpose	Image
<i>Exocarpos cupressiformis</i>	Cherry Ballart	Small Tree	Screening	
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	Tree	Habitat and canopy renewal	
<i>Allocasuarina littoralis</i>	Black She-oak	Small Tree	Canopy renewal	
<i>Eucalyptus tereticornis</i> Plant closest to effluent disposal area	Forest Red Gum	Tree	Habitat and canopy renewal Plant closest to effluent disposal area	

Scientific Name	Common Name	Type	Purpose	Image
<i>Brachychiton populneus</i>	Kurrajong	Tree	Habitat and canopy renewal	
<i>Pittosporum undulatum</i>	Sweet Pittosporum	Small Tree	Canopy renewal	
<i>Acacia implexa</i>	Hickory Wattle	Small Tree	Canopy and mid-story renewal	
<b>DAMP VEGETATION</b>				
<i>Carex appressa</i>	Tall Sedge	Sedge	Water plant	
<i>Juncus pallidus</i>	Great-soft Rush	Rush	Water plant	



Scientific Name	Common Name	Type	Purpose	Image
<i>Juncus usitatus</i>	Common Rush/Mat Rush	Rush	Water plant	
<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge	Sedge	Water plant	
<b>SHRUBS</b>				
<i>Bursaria spinosa</i>	Native Blackthorn		Mid-story planting	
<i>Jacksonia scoparia</i>	Dogwood		Mid-story planting	






Scientific Name	Common Name	Type	Purpose	Image
<i>Indigofera australis</i>	Native Indigo		Mid-story planting and native butterfly habitat	
<i>Acacia pubescens</i>	Downy Wattle		Mid-story planting	
<i>Polyscias sambuciflora</i>	Elderberry Panax		Mid-story planting	
<i>Olearia viscidula</i>	Wallaby Bush		Mid-story planting and butterfly habitat	
<i>Acacia falcata</i>	Sickle Wattle		Mid-story planting	

Scientific Name	Common Name	Type	Purpose	Image
<i>Eremophila debilis</i>	Winter Apple		Mid-story planting and butterfly habitat	
<i>Pomaderris prunifolia</i>	Plum-leaf Pomaderris		Mid-story planting	
<i>Plectranthus parviflorus</i>	Cockspur Flower		Mid-story and habitat	
<i>Astroloma humifusum</i>	Native Cranberry		Mid-story planting	
<i>Cryptandra spinescens</i>	Spiny Cryptandra		Mid-story planting and habitat	
<i>Hibbertia diffusa</i>	Spreading Guinea Flower		Ground to mid-story planting	



Scientific Name	Common Name	Type	Purpose	Image
<i>Grevillea juniperina</i>	Prickly-leaved Spider-flower		Mid-story planting and habitat	
<i>Hakea sericea</i>	Silky Hakea		Mid-story planting and habitat	
<i>Daviesia ulicifolia</i>	Spiky Daviesia		Mid-story planting and habitat	
<i>Dodonaea viscosa</i>	Wedge-leaf Hop Bush		Mid-story planting	
<i>Lissanthe strigose</i>	Peach Heart		Mid-story planting and habitat	
<i>Melaleuca nodosa</i>			Mid-story planting and habitat	

Scientific Name	Common Name	Type	Purpose	Image
<i>Dillwynia tenuifolia</i>		Small Shrub	Mid-story planting and habitat	
<i>Chorizema parviflorum</i>		Small Shrub	Mid-story planting and habitat	
<i>Einadia nutans</i>	Climbing Saltbush		Mid-story planting and habitat	
<i>Hovea linearis</i>	Narrow-leaved Hovea		Herbaceous	
<i>Kunzea ambigua</i>	Tick Bush		Small Shrub	

Scientific Name	Common Name	Type	Purpose	Image
<i>Ozothamnus diosmifolius</i>	White Dogwood		Weak Shrub	
<i>Pimelea spicata</i>	Spiked Rice-flower		Small Shrub	
<i>Pultenea pendunculata</i>	Matted Pea-bush		Small Shrub	
<i>Pultenea parviflora</i>			Small Shrub	
<b>GROUND COVER</b>				
<i>Microlaena stipoides</i>	Weeping Grass	Grass	Ground Surfaces	







Scientific Name	Common Name	Type	Purpose	Image
<i>Dichondra repens</i>	Kidney Weed	Creeper	Ground Surfaces	
<i>Dianella longifolia</i>	Blue Flax-lily	Perennial Herb	Ground Surfaces	
<i>Dianella revoluta</i>	Blue Flax Lily	Perennial Herb	Ground Surfaces	
<i>Entolasia marginata</i>	Bordered Panic	Grass	Ground Surfaces	
<i>Eragrostis brownii</i>	Brown's Love-grass	Grass	Ground Surfaces	
<i>Lomandra longifolia</i>	Spiny Mat Rush	Grass	Ground Surfaces	

Scientific Name	Common Name	Type	Purpose	Image
<i>Centella asiatica</i>	Asiatic Pennywort	Creeper	Ground Surfaces	
<i>Panicum effusum</i>	Hairy Panic	Grass	Ground Surfaces	
<i>Scleria mackaviensis</i>		Perennial herb	Ground Surfaces	
<i>Bulbine bulbosa</i>	Native Leek	Perennial herb	Ground Surfaces	
<i>Commelina cyanea</i>	Trad	Ascending Herb	Ground Surfaces	

Scientific Name	Common Name	Type	Purpose	Image
<i>Caesia parviflora</i>	Pale Grass-lily	Perennial Herb	Ground Surfaces	
<i>Wurmbea dioica</i>	Early Nancy		Ground Surfaces	
<i>Themeda triandra</i>	Kangaroo Grass	Grass	Ground Surfaces	
<i>Bossiaea prostrata</i>			Ground Surfaces	
<b>VINES and CLIMBERS</b>				
<i>Cayratia clematidea</i>	Slender Grape	Climber	Retaining Wall	
<i>Clematis glycinoides</i>	Headache Vine/Old Man's Beard	Woody Climber	Retaining Wall	



Scientific Name	Common Name	Type	Purpose	Image
<i>Convolvulus erubescens</i>	Pink Bindweed	Twiner	Retaining Wall	
<i>Cynanchum elegans</i>	White-flowered Wax Plant	Woody Climber	Retaining Wall	
<i>Glycine clandestina</i>		Scrambler	Retaining Wall	
<i>Glycine microphylla</i>		Scrambler	Retaining Wall	
<i>Glycine tabacina</i>		Scrambler	Retaining Wall	
<i>Hardenbergia violacea</i>	False Sarsaparilla	Twiner	Retaining Wall	
<i>Kennedia rubicunda</i>	Red Kennedy Pea	Twining Herb	Retaining Wall	

Scientific Name	Common Name	Type	Purpose	Image
<i>Marsdenia viridiflora</i>	Native Pear	Woody Twining Shrub	Retaining Wall	
<i>Pandorea pandorana</i>	Wonga Wonga Vine	Woody Climber	Retaining Wall	
<i>Parsonsia straminea</i>	Common Silkpod	Woody Vine	Retaining Wall	
<i>Rubus parvifolius</i>	Native Raspberry	Scrambling Shrub	Retaining Wall	

**Note:** species in red are highly recommended. **Source of images:** Wikipedia.