Smeaton Grange Waste Recycling and Transfer Facility

52 Anderson Road, Smeaton Grange

Landscape Management Plan

Prepared for Benedict Industries | 22 June 2018

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Final Draft

Report J15135RP5 | Prepared for Benedict Industries | 22 June 2018

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1 Introduction

This letter outlines Landscape Management Plan for a resource recovery facility at 52 Anderson Road, Smeaton Grange. It has been prepared as per Condition B58 of the development consent for SSD 7424, dated 22 December 2017:

> Prior to the commencement of operation, the Applicant must prepare a Landscape Management plan for the site in consultation with Council to the satisfaction of the Secretary. The plan must form part of the OEMP in Condition C4 and be prepared in accordance with Condition C6. The plan must:
>
> (a) Detail the species to be planted on-site (refer Table 1);
>
> (b) Describe the monitoring and maintenance regime for all landscaping components (refer Section 6); and
>
> (c) Be consistent with the Applicant's Management and Mitigation Measures at Appendix B1 (refer Section 6).

A landscape plan was prepared as part of the Response to Submissions (RTS) document for the SSD 7424 development application. That landscape plan showed the front boundary fence with a 10 m setback from the road reserve. The setback for the front boundary fence is proposed to be reduced to 1 m as part of Modification 1, currently being assessed by the Department of Planning and Environment (DPE).

A revised landscape plan has been prepared to account for the new front boundary fence location. The revised landscape plan is at Figure 1.1. The new location of the fence will not impact the proposed planting.

The landscaping will comprise the vegetation included at Table 1.

All landscaping works will be undertaken by an appropriately qualified landscape contractor.

Planting schedule				
Species	**Common name**	**Maximum height**	**Planting**	**Pot size**
Eucalyptus tereticornis	Forest red gum	30 m	Plant four trees either side of entrance	45 L
Grevillea	Boongala spinebill	2 m	2 m spacing along fenceline	5 L
Callistemon citrinus	Crimson bottlebrush	4 m	2 m spacing along fenceline	5 L
Lomondra longifolia	-	1.5 m	Plant at 0.5 m spacing with mulching	Growth tube

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Landscaping plan

Smeaton Grange Benedict Industries
Landscape Management Plan
Figure 1.1

2 Description of site and proposed works

2.1 Existing condition

The area to be landscaped is generally flat and contains light ground cover, with some weeds present. It serves as an unsealed vehicle entry to the site, with associated damage (Plate 1).

Photograph 2.1 Front of site

2.2 Proposed works

The following works are proposed in the landscape area:

- Provide masonry edge to landscaped area and road reserve to contain imported topsoil and mulch;
- Remove weed species;
- Provide species listed in Table 1 to stabilise and provide screening;
- Provide additional topsoil where required;

Table 1 Plant schedule

Species	Common Name	Maximum height	Pot size	Planting location
Eucalyptus tereicomis	Forest red gum	30 m	45 L	Four trees on either side of driveway
Grevillea sp	Boongala Spinebill	2 m	5 L	2 m spacing along rear landscape boundary, adjacent to driveway
Callistemon citrinus	Crimson Bottlebrush	4 m	5 L	2 m spacing along rear landscape boundary, adjacent to side boundary
Lomondra longolia		1.5 m	Grow tube	Plant and 0.5 m spacing along landscaped area

3 Standards and sampling

3.1 Substitutions

The plant schedule at Table 1 is the accepted document for plant quantities and sizes for the project. In the event that planned species are not available, substitutions will be considered and approved by the site supervisor.

3.2 Inspections

The following inspections will be made, as applicable:

- plants available on site for compliance inspection prior to planting;
- subgrades cultivated and/or prepared prior to placing topsoil;
- plant material set out before planting; and
- completion of planting establishment work.

Trees will comply with AS 2303:2015. One of the eight trees will be sampled for compliance purposes (12% sample). Roots will be inspected by washing and exposing a small section of the rootball to establish the root development from the stem. Unsuitable trees may be rejected, with substitutes to be considered and approved by the site manager.

Bulk materials will be inspected via a 2 kg sample of each type.

3.3 Applicable standards

The following Australian Standards may be referenced during the project, as required:

- AS 4419 – Soils for landscaping and garden use (1998);
- AS 4454 – Composts, soil conditioners and mulches (1997);
- AS 4373 – Pruning of amenity trees (1996); and
- AS 2303 – Tree stock for landscape use (2015).

4 Work activities

4.1 Sequence

Landscape works are to take place after completion of concreting works on site and establishment of front security fence to reduce potential exposure to runoff or damage from construction activities.

4.2 Coordination

The landscape contractor will review final engineering and infrastructure drawings prior to establishment of the landscape area. This will involve coordination with the site supervisor.

Existing services on site at the time of planting may include, but are not limited to, storm water drainage, water, telecommunications and electricity. Locations of all services will be established prior to excavation and cultivation of the landscape area. Excavation within 1 m of underground services will be undertaken by hand.

4.3 Work near trees

Existing street trees will be protected from damage. Materials will not be placed against, under or near trees. Equipment will not be attached to trees.

Compaction of the ground under trees will be avoided. Top soil will not be added or removed within tree drip lines. Where it is necessary to cut tree roots, cutting will not unduly disturb the remaining root system.

Any damage to trees to be retained will be reported to Council and attended to by a qualified arborist who will prepare a report covering rectification works. Remedial works will be undertaken as required, including removal and replacement if so recommended.

5 Site preparation

5.1 Initial site clearing and stripping

Initial earthworks on the site will involve the clearing and stripping of the site. The landscape area will be cleared, along with existing weeds. This process will involve:

- stripping and drubbing of all existing site vegetation and weeds, including roots and topsoil;
- stockpiling and separation of all existing vegetation and vegetation impact soils from site earthworks;
- if there are sufficient quantities, mulching any larger material for potential reuse on site; and
- removing vegetated material from site to approved facilities as required.

5.2 Weed management

Remaining and re-established weeds will be eradicated by low impact physical and chemical methods. A non-residual glyphosate herbicide will be applied, as per manufacturer's instruction. Weeds and rubbish will be removed, by hand, prior to subsoil preparation.

5.3 Subsoil preparation

Planting holes and bases will be cultivated to 150 mm. Augurs will not be used without cultivation of sides and base. Cultivation of soils near services or tree roots will be done by hand. Cultivation of soils within 300 mm of paths or structures will be done by hand.

Stones exceeding 25 mm and clods of earth exceeding 50 mm will be removed. Any weeds, rubbish or other unfavourable material uncovered during cultivation will be removed.

Any additives to topsoil placed in the landscape area will be incorporated by cultivating through the topsoil prior to placement.

The surface will be trimmed to the required design levels after cultivation.

5.4 Soil type and quality

Soils will comply with AS 4419-1998. Soils texture will be 'Medium – (sandy Loam)' or 'Coarse – (sand soil)'.

Soil for the landscape works will be certified as weed free, including onion weed, nut grass, clover, wandering jew, bindii and oxalis. Soil will be placed to all planting bed areas and individual tree locations as required.

All spoilt or excess soil excavated in the process of implementing the landscaping will be removed by the landscape contractor.

5.5 Soil placement

Soil will be placed on the prepared subsoil, with an even spread and grade. Allowances will be made for compaction, with final levels allowing for mulch to be placed to the top of paving and masonry edges.

The soil service level will be:

- smooth and free from stones or lumps of soil;
- graded to drain freely without ponding, to catchment points;
- graded evenly into adjoining ground surfaces; and
- ready for planting.

5.6 Compost and fertiliser

Compost will consist of well rotted vegetative material, animal manure or other approved material. It will be free from harmful chemicals, grass and weed growth and with a neutral pH.

Fertiliser will be delivered in sealed and labelled bags or containers, including recommended uses and application rates. Fertiliser will be used in accordance with the manufacturer's recommendations.

5.7 Mulching

Mulch will be placed within the tree drip lines and *Lomondra longolia* planted areas. It will be free of deleterious and extraneous matter, such as soil, weeds, sticks and stones. Mulch will be clear of plant stems, and raked to an even surface with the finished levels.

6 Establishment and maintenance

6.1 Establishment maintenance period

A twelve month establishment maintenance period will commence upon occupation of the site.

A planting maintenance program will be performed by the contractor on a quarterly basis. Maintenance work will be recorded in a log book, noting the activities and materials that have been used.

Following completion of the establishment maintenance period, the site owner will be responsible for on-going maintenance and monitoring of the site in accordance with this management plan.

Maintenance activities are outlined in Table 2.

Table 2 Maintenance plan

Maintenance measure	Action	Timing
Weed management (maintenance weeding)	Hand removal of herbs and seedlings	Quarterly during establishment period
	Spot spraying of grasses, herbs and seedlings	Quarterly upon completion of the establishment period
Weed monitoring	Inspections noting: - Presence of weeds (species diversity, infestations, new species) - Recommendations for adaptive management, changes to weed control regime and corrective measures.	Quarterly during establishment period Quarterly upon completion of the establishment period
Mulch reinstatement	Mulched surfaces will be reinstated if necessary	Quarterly during establishment period Annually upon completion of the establishment period
Plant replacement	Failed, damaged or stolen plants will be replaced for the extent of the planting establishment period.	Monthly during establishment period Annually upon completion of the establishment period
Reporting	Monitoring results to be reported during the establishment period. Following the establishment period, the land owner will be responsible for ongoing maintenance and monitoring of site in accordance with the maintenance plan.	Quarterly monitoring reports during establishment period Annual monitoring reports following landscape establishment period.
General	The area around the entrance to the facility is kept tidy and litter free.	As required.

6.2 Weed management

In the first instance, weeds will be removed by hand, pulling the whole stem of each plant from the ground or digging out plants with a hand held tool.

In the event that chemical control is required, the spot spraying of an appropriate herbicide may be applied in the manner prescribed on the label:

- spraying of the foliage of individual plants or clumps;
- spraying the basal stems of plants;

In the event that herbicides are used, they must be selective, with spray drift must be minimised, with spray directed away from neighbouring sites.