

## GENERAL MANAGER'S REPORT TO COUNCIL

(continued)

<b>SECTION:</b>	<b>Planning – Division Decision</b>
<b>ITEM NUMBER:</b>	<b>Item 10</b>
<b>SUBJECT:</b>	<b>Development Application 17/2010 – Balala Composting Pty Ltd</b>
<b>File Reference:</b>	DA 17/2010
<b>Reason:</b>	To consider development application for a composting facility.
<b>Objective:</b>	To determine development application
<b>Budget Implication:</b>	Nil
<b>Operational Plan:</b>	Principle Activity 5.1

### Information:

An application has been received for a composting facility by Balala Composting Pty Ltd on behalf of R Jones. The property is Lot 223 DP 844146 on Balala Road, Balala. The composting facility will consist of the following components:

1. Processing area – windrow composting pad, feedstock receival zone, mixing bays and vehicle wash down bay.
2. Leachate storage dam
3. Infrastructure – machinery, vehicle and maintenance shed, site administration office.
4. Internal gravel access road.

The operation will occupy an area of approximately 2.5 ha.

The operation has been designed in accordance with the Minimum Design Requirements of the Department of Environment and Conservation (NSW), *Environmental Guidelines: Composting and Related Organics Processing Facilities, July 2004*.

The property has an area of 373 ha.

The composting process consists of a mixture of raw organic material as feedstock for windrows.

The zoning of the land is RU1 - Rural Primary Production. Council is required to consider the application under the provisions of the Uralla LEP 1988 as this was the current instrument at the time of submission of the development application to council.

Currently the applicant has been trialling Dissolved Air Floatation (DAF) sludge. This comes from the Baiada Chicken processing plant in Tamworth. The chicken meat is continually washed and cleaned with water. This waste water is collected and processed through a treatment plant where the proteins and fats are concentrated and skimmed off. The skimmed off product is the DAF. Licensing for the use of this product is not required by the EPA. Licensing is required for the use of hatchery waste, tannery waste and grease trap waste. This application is for the use of DAF and Hatchery Waste.

Therefore staging will consist of the use of DAF as Stage One and Hatchery Waste as Stage Two. Baiada is required to get a resource recovery exemption from the EPA after the approval has been issued from Council for the composting facility. The applicant is not required to gain the approval. No details of the tannery waste or grease trap waste is available yet, therefore it will be subject to a further application.

A copy of the Statement of Environmental Effects is in Attachment A.

Supporting the Statement of Environmental Effects were four independent planning assessments being a threatened species assessment, noise assessment, geotechnical soils assessment and aboriginal cultural heritage assessment. A copy of the executive summary, conclusions and recommendations for each assessment is in Attachment B.

## GENERAL MANAGER'S REPORT TO COUNCIL

(continued)

### Threatened Species Assessment

The key recommendations:

- Offset plantings – covered under the CMA Property Vegetation Management Plan.
- Control of foxes to be implemented.
- Locally native species of flora to be used in landscaping
- Logs, dead wood and felled trees remove from the development envelope should be relocated as habitat off site, if not used as fence posts or firewood on the property.

### Noise Assessment

The key conclusions:

- Sound levels will peak during the construction phase of the development, with Balala being the receptor of the construction noise.

### Geotechnical Soils Assessment

The key recommendations:

- Compost pad - insitu materials the recommendations for Composting Guidelines in regard to integrity and permeability.
- Compost pad – groundwater contamination is considered unlikely.
- Compost pad – consideration should be given to the construction subsurface interception drain for placement down slope of the compost pad to direct shallow groundwater to the holding pond.
- Compost pad - imported gravel is required for the upper 0.15 metres to improve durability.
- Compost pad – a compacted liner of insitu materials is recommended to a thickness of 0.3m.
- Holding pond – the insitu materials do not meet Composting Guidelines for permeability rate. Several other options exist to design and construct holding pond to meet guidelines.

### Aboriginal Cultural Heritage Assessment

Management recommendations:

- There is no requirement to make application to the Office of Environment and Heritage for an Aboriginal Heritage Impact Permit.
- The development be monitored by representative of the registered Aboriginal Groups for ground disturbance during excavations of the 'cut and fill' for the construction of the composting pad and excavation during construction of the swale drain and leachate dam.
- All site personnel involved in development works should be briefed on the obligations related to the discovery of Aboriginal objects according to the *National Parks and Wildlife Act 1974*.

### Notification

The application was notified as per the provisions under Chapter 13 - Notification of the Uralla Development Control Plan 2011. One submission was received. A further submission was received after the notification period had closed. This submission was by way of complaint that was responded to by Council after the complaint was investigated. The submission, complaint and council's response is in Attachment C.

The application was referred to the Development Determination Advisory Unit who carried out a site inspection. They met on Thursday 11 October 2012. Their recommendation was for approval subject to appropriate conditioning.

During the site inspection, Councillors requested that a map be prepared highlighting the boundaries of the adjoining properties for a 2 km radius. This is in Attachment D. It also shows the properties within the 2km radius that could be built upon.



## GENERAL MANAGER'S REPORT TO COUNCIL

(continued)

### Referrals

*Environment Protection Authority* - This application is an integrated development. Therefore approval needs to be gained from the EPA, but only for the use of hatchery waste. The use of DAF does not require approval from the EPA. A resource recovery exemption would need to be acquired for the hatchery waste and possible tannery waste use. They do not require a detailed odour modelling for the proposal due to the current distance to the nearest receptor, but would like further information on wind frequency. They also need to be assured that dwellings could not be built on the adjoining lots and as a result reduce the current buffer zone distances to sensitive receptors.

Attachment E contains the Environmental Protection Agency letter dated 24 November 2011.

Border Rivers Gwydir Catchment Management Authority – A Property Vegetation Plan has been issued in relation to the clearing of trees on the land. This has included an offset area.

Attachment F contains the Border Rivers Gwydir Catchment Management Authority – Property Vegetation Plan dated 14 September 2012.

### Outstanding Issues

The technical services report was outstanding as at the time of writing this report. This will be available prior to the council meeting. This will include the contribution to be paid towards the upgrading of Balala Road, and the method of calculation. It is expected that there will be approximately 50 truck movements a week delivering waste product to be composted and then back loading compost for delivery.

### Conclusion

This proposed development is permissible in the zoning. There is no reason as to why the application cannot be approved for the composting of DAF and green waste. This would allow the applicant to get the infrastructure in place for the later processing of hatchery waste and possibly tannery and grease trap waste. As the EPA have not yet issued a resource recovery exemption for the use of hatchery waste, it would be difficult to include the requirements of the EPA licensing in this approval for the DAF. Therefore a Staged approval should be issued with approval being given for the use of the DAF in the composting and with Stage Two approval being issued after the resource recovery exemption has been issued by the EPA.

A full copy of the development assessment report is in Attachment G. This outlines the full assessment.

**Prepared By:** Libby Cumming, Manager of Planning

**Prepared For:** General Manager

### **Recommendation:**

That Council approve Development Application 17/20101 for a composting facility on land known being Lot 223 DP 844146 at Balala Road, Balala, subject to:

1. Stage one approval for the compost mix to consist of Dissolved Air Floatation (DAF) sludge and green waste only;
2. Further approval will need to be sought for Stage Two being the composting of hatchery waste after the Environmental Protection Agency have issued a resource recovery exemption;
3. The conditions attached to the development assessment report; and
4. The inclusion of the Technical Service conditions.

# GENERAL MANAGER'S REPORT TO COUNCIL

(continued)

## Attachments to the Item 10 Report

### INDEX OF ATTACHMENTS

The Following Documents are Included as Attachments to the Preceding Report:

Attachment Name	Pages
A: Statement of Environmental Effects	56
B: Executive summaries, conclusions and recommendations from independent supporting planning assessments	14
C: Submission, complaint and council response.	5
D: Property Locations Adjoining Proposed Balala Composting Facility	1
E: Office of Environment and Heritage – Environmental Protection Agency letter dated 24 November 2011	2
F: Border Rivers Gwydir Catchment Management Authority – Property Vegetation Plan dated 14 September 2012	12
G: Development Assessment Report – dated 16 October 2012	16



Tom O'Connor  
General Manager

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# STATEMENT OF ENVIRONMENTAL EFFECTS

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## PROPOSED COMPOSTING FACILITY

LOT 223 IN DP 844146

BALALA ROAD, BALALA NSW 2358

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## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	THE PLANNING CONTEXT .....	1
1.2	COMPONENTS OF THE PROPOSED FACILITY .....	2
<b>2</b>	<b>SITE CONTEXT</b> .....	<b>2</b>
2.1	PROPERTY DESCRIPTION .....	2
2.2	LOCALITY INFORMATION.....	3
2.3	ADJOINING PROPERTIES .....	4
2.4	SITING AND VISUAL AMENITY .....	4
2.5	BUFFERS.....	4
2.6	ACCESS, TRANSPORT AND TRAFFIC .....	5
2.6.1	INTERNAL ROAD NETWORK .....	7
2.7	PHYSICAL CHARACTERISTICS .....	7
2.7.1	TOPOGRAPHY .....	7
2.7.2	VEGETATION .....	8
2.7.3	SOILS.....	12
2.7.4	HYDROLOGY .....	12
2.7.5	METEOROLOGICAL CONDITIONS.....	12
	2.7.5.1 RAINFALL AND TEMPERATURE .....	12
	2.7.5.2 WIND PATTERNS .....	13
<b>3</b>	<b>DESIGN DETAILS</b> .....	<b>13</b>
3.1	LAYOUT.....	13
3.2	DESIGN AND CONSTRUCTION .....	14
3.2.1	PROCESSING AREA - EARTHWORKS .....	14
3.2.2	COMPOSTING PAD .....	15
3.2.3	FEEDSTOCK RECEIVAL ZONE AND MATERIALS MIXING BAYS .....	15
3.2.4	VEHICLE WASH DOWN BAY.....	15
3.2.5	LEACHATE STORAGE DAM.....	16
3.2.6	EROSION AND SEDIMENT CONTROL .....	17
3.2.7	ADMINISTRATION AND EMPLOYEE FACILITIES .....	17
<b>4</b>	<b>FACILITY OPERATION AND MANAGEMENT</b> .....	<b>17</b>
4.1	COMPOSTING METHOD .....	17
4.2	FEEDSTOCK.....	18
4.2.1	NATURE AND QUANTITY .....	18
4.3	OPERATIONAL PROCESSES .....	19
4.3.1	BLENDING, BULKING AND MIXING.....	19
4.3.2	FORMATION OF THE WINDROWS .....	20
4.3.3	THE MATURE PILE.....	21
4.4	PROCESS CONTROL.....	21
4.4.1	SITING AND ORIENTATION OF WINDROWS .....	21
4.4.2	TEMPERATURE .....	21
4.4.3	OXYGEN .....	22
4.4.4	MOISTURE .....	22

4.6	THE FINISHED PRODUCT.....	23
4.6.1	END USE.....	23
4.6.2	CERTIFICATION .....	23
4.7	HOURS OF OPERATION.....	24
4.8	STAFF .....	24
4.9	PLANT AND EQUIPMENT .....	24
<b>5</b>	<b>ENVIRONMENTAL ASSESSMENT.....</b>	<b>24</b>
5.1	AIR QUALITY .....	25
5.1.1	ODOUR .....	25
5.1.1.1	MANAGEMENT AND MITIGATION MEASURES.....	26
5.1.2	DUST AND PARTICULATE MATTER .....	26
5.1.3	METHANE GAS EMISSIONS.....	27
5.1.4	EMISSIONS OF NITROGEN OXIDES, SULPHUR OXIDES AND NON METHANE ORGANIC COMPOUNDS .....	27
5.2	WATER QUALITY .....	28
5.2.1	WORKING SURFACES.....	29
5.2.2	LEACHATE BARRIER SYSTEM .....	30
5.2.3	LEACHATE STORAGE SYSTEM .....	30
5.2.4	SURFACE WATER CONTROLS .....	31
5.3	SUITABILITY OF INCOMING ORGANICS .....	32
5.4	SAFE STORAGE AND DISPOSAL OF PROCESS RESIDUALS AND INCOMING ORGANICS.....	32
5.5	STOCKPILING .....	32
5.6	NOISE.....	33
5.7	LITTER.....	34
5.8	VERMIN.....	34
5.9	SECURITY .....	35
5.10	FIRE .....	35
5.10.1	FIRE HAZARDS.....	36
5.10.1.1	COMPOST PILES .....	36
5.10.1.2	HAZARDOUS AND COMBUSTIBLE .....	36
5.10.2	FIRE MANAGEMENT .....	36
5.11	CLOSURE.....	36
<b>6</b>	<b>ENVIRONMENTAL MONITORING AND REPORTING .....</b>	<b>37</b>
<b>7</b>	<b>STATUTORY PROVISIONS .....</b>	<b>38</b>
7.1	PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997.....	38
7.2	ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979.....	39
7.2.1	SECTIONS 91 AND 93 – INTEGRATED DEVELOPMENT .....	39
7.2.2	SECTION 79C EVALUATION.....	39
7.2.2.1	STATUTORY PLANNING CONSIDERATIONS .....	39
7.2.2.2	SUITABILITY OF THE SITE.....	41
7.2.2.3	ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACTS.....	42
7.2.2.4	SUBMISSIONS.....	42
7.2.2.5	PUBLIC INTEREST.....	42



**8 CONCLUSION..... 42**

**9 REFERENCES..... 43**

## ATTACHMENTS

- A Locality Analysis Plan
- B Contour Plan
- C Typical Sections
- D Conceptual Layout of Proposed Composting Facility

## 1 INTRODUCTION

### 1.1 THE PLANNING CONTEXT

This Statement of Environmental Effects (SEE) has been prepared on behalf of Mr Ron Jones (the proponent) to accompany Development Application DA-17-2010 lodged with Uralla Shire Council in April 2010.

The proponent proposes to construct and operate a commercial composting facility on Lot 223 DP 844146, Balala Road, Balala. The proposed development is permitted with consent pursuant to the Uralla Local Environmental Plan, 1988 (ULEP). Uralla Shire Council is the consent authority for this proposal.

The proposal is a Scheduled Activity as defined in Clause 12 Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act). The development is therefore Integrated Development pursuant to section 91 of the Environmental Planning and Assessment Act 1979 (EP&A Act). Concurrence is required from the NSW Department of Environment, Climate Change and Water (DECCW). Integrated development consent is sought under Part 4 of the EP&A Act.

Subsequent to the issue of development consent, an application will be made to the DECCW for an Environment Protection Licence to authorise the carrying out of the Scheduled Activity, as required under section 48 of the POEO Act. Prior to the commencement of any construction or earthworks associated with the proposed development, a Construction Certificate, including detailed engineering plans and specifications will be lodged with Council for approval.

In the preparation of this SEE the following documents and legislation have been taken into consideration:

- Uralla Shire Local Environmental Plan 1988
- The Environmental Planning and Assessment Act 1979
- The Environmental Planning and Assessment Regulations 2000
- Protection of the Environment Operations Act 1997
- Protection of the Environment (Waste) Regulation 2006
- Environmental Guidelines: Composting and Related Organics Processing Facilities, Department of Environment and Conservation (NSW) July 2004
- EIS Guidelines: Composting and Related Facilities, New South Wales Department of Urban Affairs and Planning, September 1996
- Living and Working in Rural Areas, NSW Department of Primary Industries 2007

## 1.2 COMPONENTS OF THE PROPOSED FACILITY

The proposed operation will consist of:

- Processing Area consisting of:
  - ◆ Windrow Composting Pad
  - ◆ Feedstock Receival Zone
  - ◆ Mixing Bays
  - ◆ Vehicle Washdown Bay
  
- Leachate Storage Dam – connected to the Processing Area by swale drain.
  
- Infrastructure, including:
  - ◆ Machinery, Vehicle and Maintenance shed
  - ◆ Site Administration Office
  
- Internal access road, gravel

The operation will occupy an area of approximately 2.5 ha (excluding internal road).

The proposed composting facility will be designed in accordance with the Minimum Design Requirements of the Department of Environment and Conservation (NSW), Environmental Guidelines: Composting and Related Organics Processing Facilities, July 2004.

## 2 SITE CONTEXT

### 2.1 PROPERTY DESCRIPTION

The proposed composting facility will be located on Lot 223 DP 844146, Parish of Balala, Shire of Uralla.

The subject property has an area of approximately 343ha, of which only 2.5ha in the north east corner of the property will be utilised for the proposed Composting Facility. The footprint of the proposed development ('extent of works') is shown on the Contour Plan **Attachment B**.



## 2.2 LOCALITY INFORMATION

The proposed development will be located in the Northern Tablelands region of New South Wales, approximately 18km west of Uralla in the rural precinct of Balala. The regional location is shown in **Figure 2.1**.

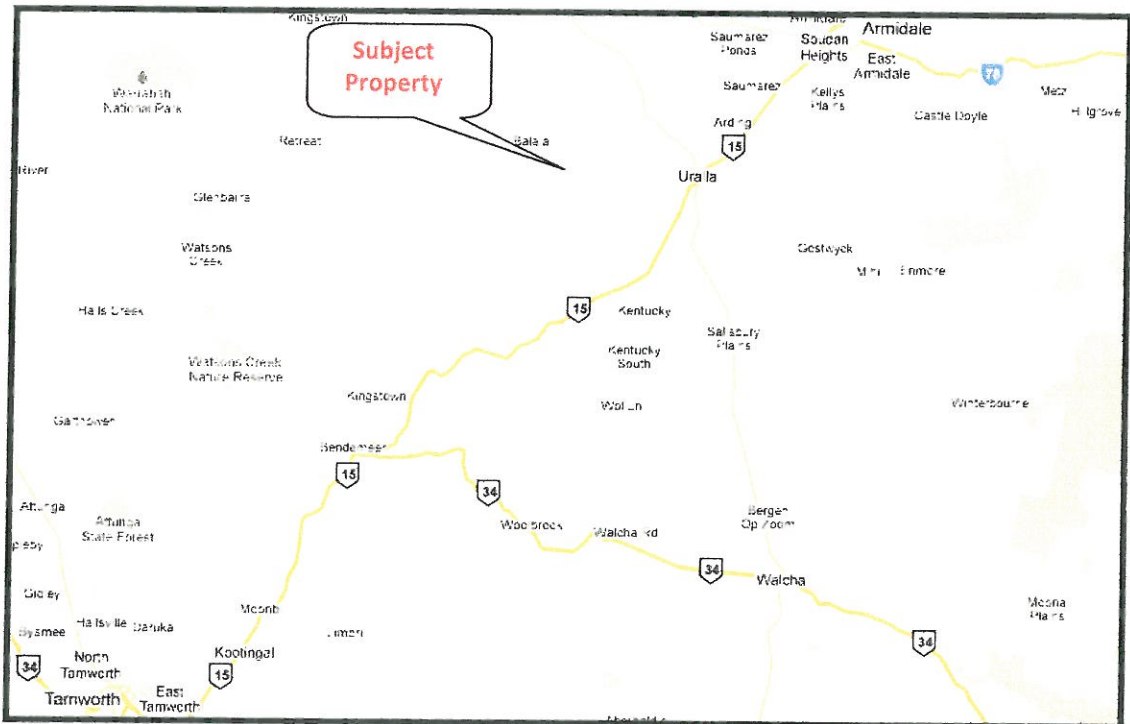


Figure 2.1 – Regional Location

source: Hawkins, Hook & Co, August 2010

The surrounding area is rural with a history of agricultural use. A number of originally much larger rural holdings have been subdivided into smaller parcels of land which now adjoin the subject property, as shown in **Figure 2.2**.

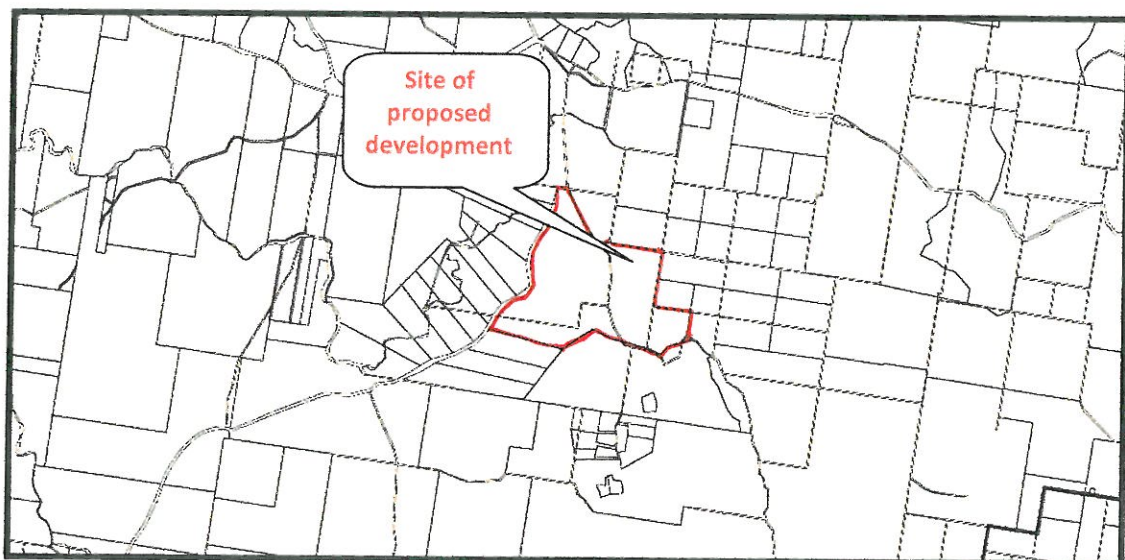


Figure 2.2 – Cadastral Map

source: Hawkins, Hook & Co, August 2010

These small rural holdings are capable of supporting only limited agricultural activity and hobby farming such as low intensity grazing and agistment of cattle, sheep and horses.

### 2.3 ADJOINING PROPERTIES

The population density is sparse given that many of the surrounding and adjoining properties are vacant lots. The nearest dwelling ('Balala') is located 2.4km north-west of the proposed development. The proximity of the nearest dwellings to the proposed facility is shown on the Locality Analysis Plan (**Attachment A**).

### 2.4 SITING AND VISUAL AMENITY

The proposed facility will be located in the north east corner of the property approximately 1.79km from the northern boundary, 2.3km from the eastern boundary and 1.1km from the southern boundary. It will be set back 1.3km from the Balala Road frontage.

The substantial separation distances between the proposed development and surrounding properties, dwellings and road frontage, are more than adequate to ensure the proposed development will have minimal impact upon the visual amenity of the area. Moreover, the infrastructure to be constructed (dams, sheds and outbuildings) and the machinery to be used on site (front end loaders, trucks, tractors) is in keeping with the rural character of the area.

The existing vegetation between the road and the proposed development will be retained to provide a visual screen capable of obscuring any visible components of the composting operation. Planting of vegetation is also proposed around the perimeter of the facility.

The setback of the proposed development from Balala Road, the intervening vegetation, and the strategic planting of trees, will minimise the prominence of the proposed development, enabling only limited views into the facility from the road or from adjoining properties.

### 2.5 BUFFERS

In the absence of a local Development Control Plan for Rural Buffers, reference has been made to the minimum buffers recommended by the NSW Department of Primary Industries<sup>1</sup> (DPI) to determine an adequate separation distance between the proposed development and rural dwellings; the proposed development and watercourses; the proposed development and property boundaries; and the proposed development and roads.

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<sup>1</sup> Living and Working in Rural Areas, 2007: Table 6, p.90



Given that the DPI has not identified composting facilities per se as an industry of concern in its handbook, the buffers recommended for Piggeries, Feedlots and Poultry have been applied to this development. These industries were selected based on the nature of the waste they generate which is somewhat akin to the nature of the feedstock to be utilised by the proposed facility.

The DPI recommends the following buffers for these industries.

	Buffer Distance (metres)			
	Rural Dwelling	Watercourses and wetlands	Property Boundaries	Roads
<b>Piggeries, Feedlots Poultry</b>				
<b>waste storage area</b>	500	100	100	100
<b>waste utilisation area</b>	250	100	20	20

Source: Table 6: DPI, *Living and Working in Rural Areas 2007*

In accordance with the DPI guidelines buffers of 500m and 100m have been applied around the proposed development, as shown on the Locality Analysis Plan (**Attachment A**). No dwellings are located within the 500m buffer zone and no road, watercourse or property boundary is located within the 100m buffer zone.

In order to minimise future land use conflict, the erection of dwellings within the 500m buffer zone could be prohibited.

## 2.6 ACCESS, TRANSPORT AND TRAFFIC

The site is conveniently located between two major regional cities (Uralla and Tamworth) and 18km from the New England Highway, which is a major transport route between Newcastle and Brisbane. The facility will therefore have easy and relatively direct access to established and adequate transport networks.

Feedstock will be transported to the site by means of a truck and dog trailer (or equivalent) via the New England Highway. All finished material will be despatched from the facility directly to customers by the same means. Product will not be sold to customers direct from the facility therefore the provision of customer car parking is not required.

The property is reached by turning west off the New England Highway into Kingstown Road (sealed) for a distance of 16km and then south onto Balala Road (gravel) for a distance of less than 2km. The transport route is highlighted in **Figure 2.3**.

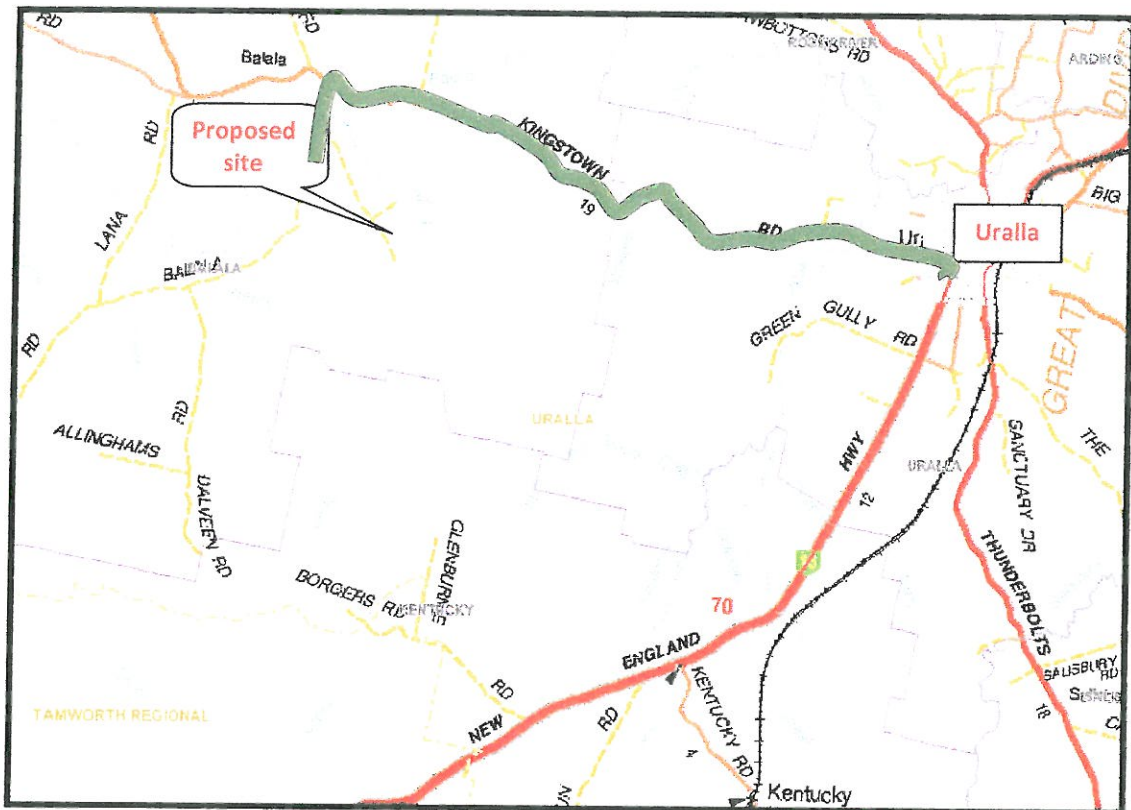


Figure 2.3: Transport Route

source: Hawkins, Hook & Co, August 2010

Balala Road is an unsealed back road that joins the New England Highway 40km north-east of Tamworth. It is not a main traffic route and is characterised by local traffic movements. Truck movements associated with the proposed development will travel less than 2km of the 29km length of Balala Road.

Kingstown Road is a bitumen sealed road linking Kingstown to Uralla, terminating in a T-intersection with the New England Highway at Uralla. Traffic patterns along Kingstown Road are dominated by local traffic. The trucks will travel along 16km of its 42km length.

It is anticipated that the operation will require two truck deliveries a day.

Whilst the proposed operation has the potential to generate additional traffic movements from heavy vehicle deliveries of feedstock and removal of finished product from the site, it is considered that the existing road network is adequate to deal with the traffic movements associated with the proposed development.

### 2.6.1 INTERNAL ROAD NETWORK

The property has two access points directly off Balala Road which will be utilised as the entry and exit points to the facility. The southernmost access point, which passes by an onsite quarry, will be utilised as the site Entry and the northernmost access point will be utilised as the site Exit.

The two access points will be linked together to form an internal loop road into and out of the proposed composting facility. This road will be a gravel road suitable for 2 wheel drive vehicles, truck and trailers, and heavy machinery.

The Entry and Exit points and the internal road to and from the Processing Pad are shown labelled as '(A)' on the Locality Analysis Plan (**Attachment A**).

## 2.7 PHYSICAL CHARACTERISTICS

### 2.7.1 TOPOGRAPHY

The site falls within the New England Tableland Bioregion of New South Wales which is characterised by a stepped plateau of hills and plains with high elevations between 600 and 1500mAHD.

The general locality is undulating with some steep sections. Hilly granite country is typical of the area. The site itself contains exposed granite rock sparsely located over the site. **Figure 2.4** provides an overview of the topography of the site and immediate surrounds.

The topography of the area surrounding the proposed development ranges from lower slopes through to undulating and hilly land to rocky outcrops. A ridge line running north-west to south-east rises to a height of 1020mAHD which is the highest point on the property. The Composting Facility will be built just to the west of this ridge line taking advantage of the natural slope and drainage flows to the west. The Locality Analysis Plan (**Attachment A**) shows the approximate location of this ridgeline in relation to the facility.



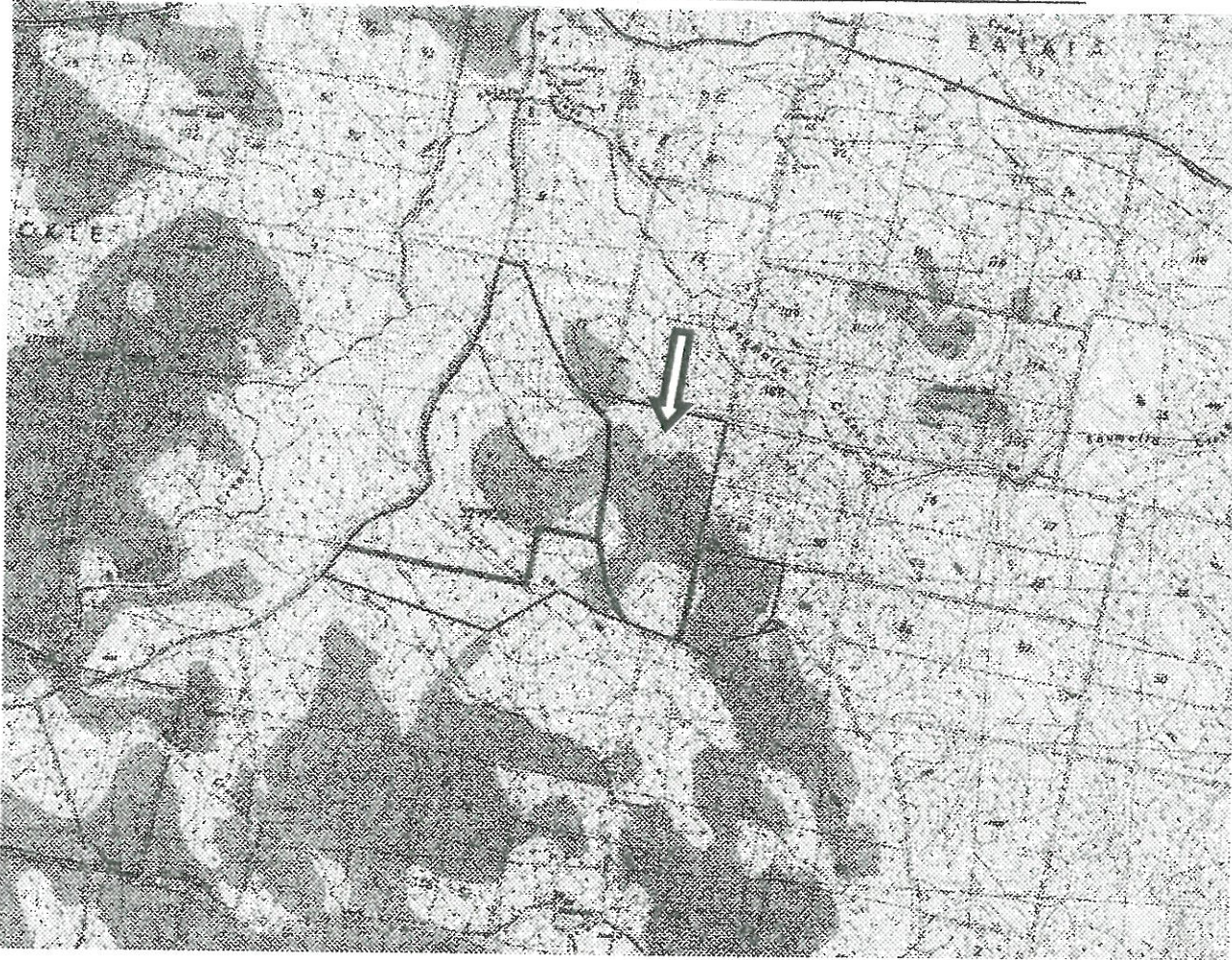


Figure 2.4: Topographical view of the site  
Source: NSW Department of Land & Water Conservation [www.six.nsw.gov.au](http://www.six.nsw.gov.au)

### 2.7.2 VEGETATION

The natural vegetation on the property is representative of the area, consisting of native timbers such as box, stringybark, iron bark, apple gums and scrubby regrowth. Trees are either found scattered or in open woodland with sparse understorey, although a few pockets of more dense coverage exist, primarily where vegetation has been retained on the hills and ridgeline. Ground cover consists of a mix of native and naturalised pastures. The site and the surrounding area show evidence of past land clearing and vegetation management practices associated with agricultural activity.

The following photographs, taken at increasing levels of magnification, illustrate the extent and density of vegetation cover across the property and in close proximity to the proposed development. It can be clearly seen that the location of the proposed facility is in an area of relatively sparse vegetation which will result in only minimal clearing. No vegetation will be removed from the ridgeline above the Processing Area.



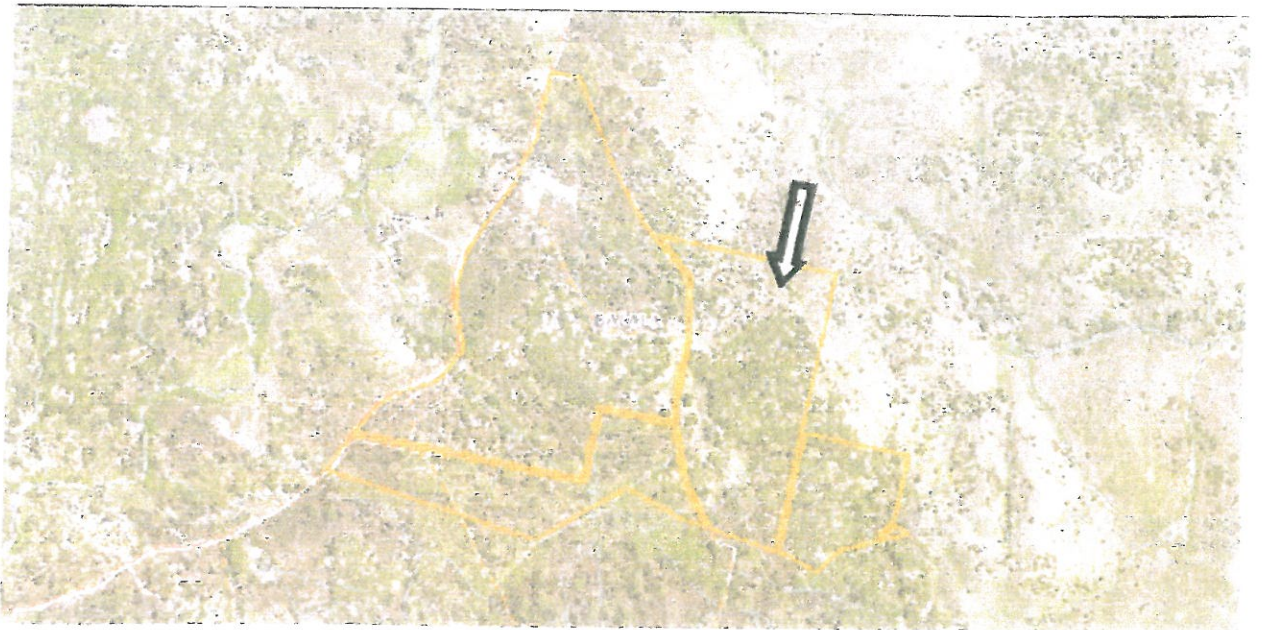


Figure 2.5: Aerial view #1

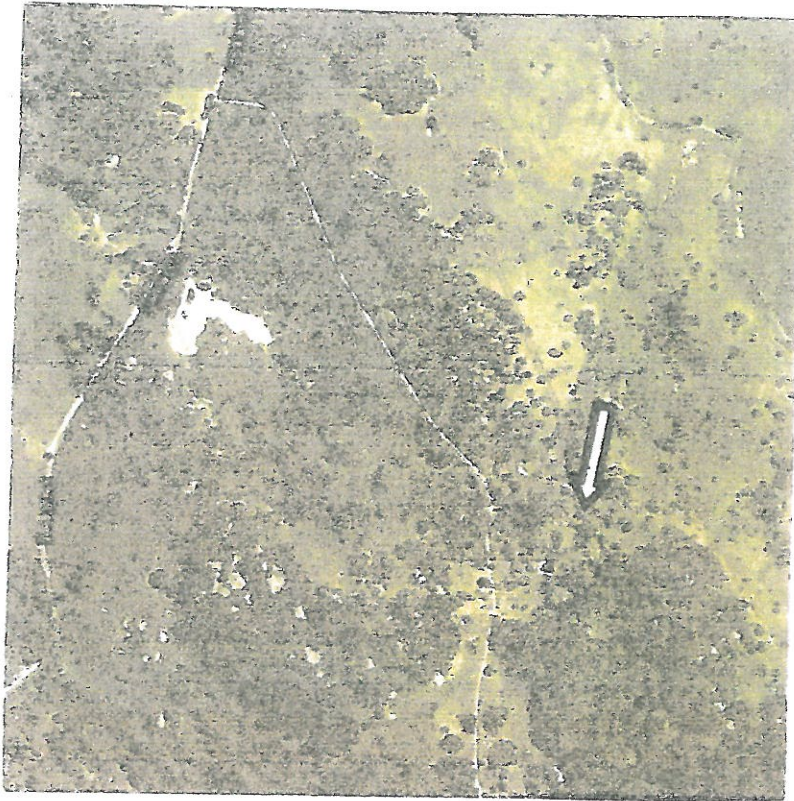
Source: NSW Department of Lands [www.six.nsw.gov.au](http://www.six.nsw.gov.au) (retrieved 19/09/10)



Figure 2.6: Aerial view #2

Source: NSW Department of Lands [www.six.nsw.gov.au](http://www.six.nsw.gov.au) (retrieved 19/09/10)





[www.six.nsw.gov.au](http://www.six.nsw.gov.au)



[www.six.nsw.gov.au](http://www.six.nsw.gov.au)





Photograph 1: Looking north east from the top of the ridgeline, 15m north east of the proposed Processing Pad (Photo by Hawkins, Hook & Co, August 2010)



Photograph 2: Looking west from approximately the centre of the proposed Processing Pad. (Photo by Hawkins, Hook & Co, August 2010)

### 2.6.3 SOILS

The site has moderate to poor soils with relatively low fertility and poor structure. Much of the soil is fine to medium grained decomposed granite soil, which is slightly deficient in nutrients.

### 2.6.4 HYDROLOGY

The proposed development site is located primarily in the catchment of Roumalla Creek which is a tributary of the much larger Gwydir River Catchment. Roumalla Creek flows to the north of the site and is one of 30 tributaries that feed into the Gwydir River. The Contour Plan (**Attachment B**) shows the location of Roumalla Creek and Dippy Creek (which joins Roumalla Creek). These drainage lines are located over 100m from the proposed development.

Drainage flows across the Composting Pad are to the west. Drainage flows on the other side of the ridge line are to the north and north east, away from the proposed facility.

The Composting Pad has been designed so that any run off from the facility will be directed away from the natural drainage lines and contained within the leachate storage dam located downslope of the Processing Area. Drainage from upslope of the facility (to the south) will be diverted around the facility by means of a diversion bund and drainage channel.

Site drainage is shown on the Locality Analysis Plan (**Attachment A**).

### 2.6.5 METEOROLOGICAL CONDITIONS

#### 2.6.5.1 RAINFALL AND TEMPERATURE

The site is located in a temperate to cool temperate climate zone, characterised by warm summers, cold winters and uniform rainfall, with the majority of rain generally falling in summer.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years
<b>Temperature</b>														
Mean maximum temperature (°C)	26.4 (highest)	25.7	24.0	20.0	15.8	12.8	11.8 (lowest)	13.3	17.0	20.0	23.6	25.9	19.7	27 to 1967
Mean minimum temperature (°C)	12.5	12.7 (highest)	11.1	6.8	3.0	0.9	-0.4 (lowest)	0.4	2.8	6.2	8.7	11.1	6.3	27 to 1967
<b>Rainfall</b>														
Mean rainfall (mm)	105.4 (highest)	83.8	60.2	40.0 (lowest)	45.7	54.2	57.0	55.3	54.1	73.7	85.5	87.9	802.1	109 to 2010

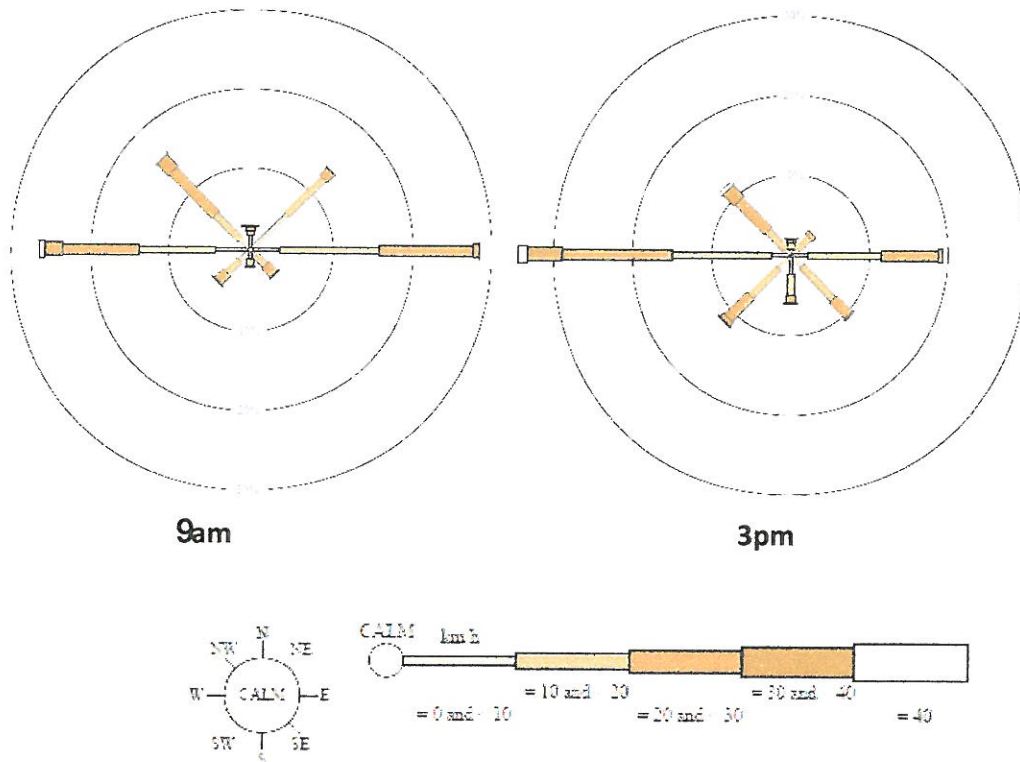
Sources: Bureau of Meteorology: URALLA (DUMARESQ ST) Weather Station



### 2.6.5.2 WIND PATTERNS

The prevailing wind direction is from the east and west as shown on the following wind roses. Wind velocities, shown as an annual average, are predominantly between 10 and 30km/hr.

In the afternoon, wind from the west is more frequent and has a higher velocity than in the morning (with a greater percentage of time exceeding velocities of 30km/hr), although the percentage of time where wind velocities exceed 40km/h is very small (approximately 1% of the time).



Source: Bureau of Meteorology Armidale Airport Weather Station (40kms east of site)  
(data from 1 Jun 1994 to 28 Feb 2010)

## 3 DESIGN DETAILS

### 3.1 LAYOUT

The conceptual layout of the composting facility is shown in **Attachment D** and consists of:

- Feedstock Receival Zone which includes Mixing Bays and Vehicle Wash Down Bay (concrete)
- Composting Pad (clay lined)
- Machinery, Vehicle and Maintenance Shed (steel framed shed with concrete floor)

- Site Administration Office (located within Machinery Shed)
- Leachate collection and storage system (swale and dam)
- Internal roadway (gravel)

### 3.2 DESIGN AND CONSTRUCTION

The proposed facility has been designed to allow surface water to drain away from the Processing Pad into a purpose built clay lined leachate dam that will be located at the south western end of the Pad. Run off will enter the dam via a swale. The swale will be clay lined to provide low permeability and stabilised with a layer of topsoil seeded with grass.

The leachate dam has been designed to collect all surface run off from a 1 in 10 year, 24 hour period storm event without overflowing. Surface water calculations indicate a required storage capacity for the leachate dam of 911m<sup>3</sup>. The dam however, will be designed to have a capacity of at least 110% of that required ie. 1000m<sup>3</sup>. This extra capacity will minimise the possibility of the dam overflowing.

Surface water from the upstream water catchment will be diverted around the perimeter of the Processing Pad by means of a diversion bund and drainage channel (shown as a 'catch drain or concrete kerb' on the Contour Plan, **Attachment B**).

Only the minimum area necessary for the construction and operation of the facility will be disturbed as part of this development.

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#### 3.2.1 PROCESSING AREA - EARTHWORKS

The whole area (approximately 8440m<sup>2</sup>) will be prepared as follows:

- Subgrade preparation will require the removal of vegetation and loose top soil.
- Excavation of the area to a maximum depth of 3.1m and fill to a maximum depth of 3.2m (fill sourced from the freshly excavated material) to achieve a 5H:1V batter slope and a finished site level ranging from 962.31mAHD (eastern extremity) to 958.54mAHD (south western extremity of Pad). This will result in 9,300m<sup>3</sup> excavated as shown on Contour Plan (cut shown in pink; fill shown in blue) and a slope of 3% across the site, facilitating surface drainage into the leachate dam without ponding on the Pad.
- The sub base will be graded and compacted with gravel. The gravel will act as a drainage layer underneath the clay liner.
- The site will be sloped towards the leachate collection and storage dam which is where all run off from the facility will be directed.
- Surplus excavated material will be used to construct bunds and diversion banks to control surface run on and run off:



- ◆ a 500mm high diversion bank will be constructed along the southern boundary of the Pad to direct surface water runoff around the facility (shown as a broken black line on the Contour Plan, **Attachment B**); and
- ◆ a catch drain will be constructed along the western edge of the Pad to direct all surface water to the storage dam (also shown on the Contour Plan).

All fill material will be sourced on site.

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### 3.2.2 COMPOSTING PAD

The composting Pad will be clay lined under compacted gravel and will be constructed in the following manner:

- A clay liner with permeability of  $<10^{-7}$  m/sec will be placed in two, 300mm thick layers, with each underlying layer scoured to reduce lamination.
- A third layer will be placed at the edge of the clay liner to form the perimeter bund.
- The moisture content of the clay in each layer will be compacted to achieve the density required for a permeability of  $<10^{-7}$  m/sec.
- In-situ density tests will be undertaken by a geotechnical engineer to establish that the density required to achieve a permeability of  $<10^{-7}$  m/sec is achieved.
- Following verification that the required density is achieved, a 150mm thick layer of compacted rubble will be placed over the clay liner to provide mechanical protection to the clay and to provide a working surface.

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### 3.2.3 FEEDSTOCK RECEIVAL ZONE AND MATERIAL MIXING BAYS

The Material Mixing Bays will consist of two 20m (wide) by 10m deep concrete bays, with 4 foot (1.2m) high side walls and 6 foot (1.8m) high rear walls.

A ramp up to the bays will enable trucks to tip their loads directly into the Mixing Bays.

Front end loaders will be used to mix the feedstock within the bays.

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### 3.2.4 VEHICLE WASH DOWN BAY

The Mixing Bays will be utilised for the washing down of vehicles and machinery. Being constructed from concrete the bays provide an appropriate impermeable layer for this activity.

Immediately after tipping its load of feedstock into the Mixing Bay and before leaving the tipping area, the truck will wash down using fresh water obtained from onsite fresh water storage. The

water used in the wash down process will be incorporated into the feedstock upon mixing. Additional green waste will be added as necessary, to regulate the moisture content of the pile.

The South Australian facility, upon which this proposal has been based, uses approximately 300L a week in the wash down process.

### 3.2.5 LEACHATE STORAGE DAM

The leachate storage dam has been designed for a 1 in 10 year, 24 hour storm event. Surface water calculations based on such an event indicate that a minimum total storage capacity of 911m<sup>3</sup> will be required. However, to ensure adequate storage in a worst case event a dam capacity of 110%, or 1000m<sup>3</sup>, has been designed. A dam of such capacity will occupy an approximate area of between 1500m<sup>2</sup> to 2500m<sup>2</sup>.

- The dam will be lined to 900mm thick with a recompacted clay liner of permeability of <math><10^{-9}</math> m/sec.
- The liner will be placed over the exposed soil and held in place by a perimeter 'anchorage' trench, 600mm wide and 300mm deep, and then backfilled with clay.
- All loose material shall be removed before placement of the liner.
- Side slopes shall have a gradient not exceeding 3 horizontal:1 vertical.
- A clay lined swale drain will link the Processing Pad to the leachate storage dam.

Technical and installation specifications of the clay liner will be submitted with the application for a Construction Certificate.

The storage dam will be kept below 50% capacity to ensure sufficient storage is available when runoff occurs and to prevent dirty water discharging from the site.

The level of water in the dam will be managed through atmospheric evaporation, particularly over the hotter summer months, and through reuse as process or dust suppression water. This will reduce the overall volume of dirty water stored in the dam.

Irrigation of the windrows using leachate water will be undertaken by means of low flow sprinklers placed on top of the piles. A pump will be used to deliver water from the dam to the sprinklers.

Particulate matter will be allowed to settle out of the water and collect at the base of the dam. As a contingency measure the licensee may periodically instigate and oversee the desilting of the leachate dam if necessary, to ensure that build of sedimentation at any one time is kept to a minimum.

If the leachate dam cannot be maintained at less than 50% capacity, extra storage will be constructed, but at no stage is wastewater to be released into the environment without the permission of the DECCW.

### 3.2.6 EROSION AND SEDIMENT CONTROL

All disturbed areas as a consequence of earthworks and construction activity will be dealt with in accordance with design plans and Council requirements, and in accordance with Landcom's, Managing Urban Stormwater: Soils and Construction, Vol 1, July 2006.

### 3.2.7 ADMINISTRATION AND EMPLOYEE FACILITIES

A Site Administration Office will be located within the Machinery, Vehicle and Maintenance Shed; an 80m x 40m, steel framed shed with concrete base.

The Office will house the Operations Manager and provide facilities for the conduct of all management and operational duties.

## 4 FACILITY OPERATION AND MANAGEMENT

### 4.1 COMPOSTING METHOD

The proposed composting facility will be operated as an outdoor composting operation. The process will involve the use of open air Passive Aeration Static Pile technology (PASP). This method of composting relies on the passive aeration of static windrows by means of a series of perforated PVC pipes inserted at the base of the compost piles. These pipes introduce fresh air into the composting pile without the need for turning the pile. Oxygen enters the pile through a combination of diffusion and convection (caused by heating within the pile). Moisture can be added if or as required, by sprinklers or spray carts. Temporary covers can be used to preserve moisture or shroud piles from rain.

This system is being operated successfully in a number of locations and a similar facility has been operating for the past 3 years by Enviro Waste Services at Murray Bridge, South Australia, under SA EPA Licence No. 26724.



Example of a passively aerated windrow with aeration pipes visible



## 4.2 FEEDSTOCK

The facility will use a mixture of raw organic material as feedstock for the windrows.

The DECCW classifies organic waste as either Category 1, 2 or 3. Essentially the distinction between the different classifications is based on nutrient content, with Category 1 waste having the lowest nutrient content (ie low C:N ratio) and therefore being the least putrescible, slowest to degrade and the least hazardous, and Category 3 having the highest nutrient content therefore being the most putrescible and quickest to degrade. The proposed facility will receive waste from all three categories as outlined in **Table 4.1**.

Poultry manure and green waste will be standard components of all compost piles as they will be used to form a starter mix to which other feedstock will be added (this process is described in **Section 4.3.1**). Initially, the facility will be adding hatchery waste to the starter mix but the expectation is that in the future, the facility will also be able to source tannery waste and grease trap waste for mixing with the starter material.

It is estimated that the proposed facility will **receive** over 5,000 tonnes of raw organic material each year but will **process** just under 5,000 tonne of organic material. The distinction between the amount received and the amount processed is based on the loss of one third of raw material by weight during the composting process.

### 4.2.1 NATURE AND QUANTITY

**Table 4.1 – Proposed Feedstock**

Raw Organic Material	Quantity Tonnes per annum (approx)	Quantity Tonnes per week (approx)	Source	Waste Category Level <sup>^</sup>
Hatchery waste (egg shells, egg yolks, egg whites, poultry feathers, bones, carcasses, chicken embryos)	1,872	36	Baiada Poultry, Tamworth NSW	3
Poultry manure	520	10	Baiada Poultry, Tamworth NSW	2
Untreated Green Waste (leaves, grass clippings, twigs, loppings, branches, straw etc)	5,096	98	Uralla Shire Council Waste Depot and private contractors	1
<b>TOTAL Materials to be RECEIVED</b>	<b>7,488 tonnes per annum</b> (This amount consists of 2,392 tonnes of putrescible organic waste and 5,096 tonnes of non-putrescible organic waste)			
<b>TOTAL Materials to be PROCESSED</b>	<b>4,992 tonnes per annum based on a loss of one third of raw material by weight during the composting process</b>			

<sup>^</sup>corresponds to the Waste Classification Hierarchy outlined in the EIS Practice Guidelines: Composting and Related Facilities (DUAP, 1996)

**Table 4.2 - Feedstock anticipated for future processing**

Raw Organic Material	Quantity Tonnes per annum (approx)	Quantity Tonnes per week (approx)	Source	Waste Category Level <sup>1</sup>
Tannery Waste <ul style="list-style-type: none"> <li>• Tannery Fleshings (consists of membranes and flesh removed from animal hides during the tanning process)</li> <li>• Tannery Mud (settled sludge produced during the treatment of tannery wastewater)</li> </ul>	To be confirmed		To be confirmed	3
Grease Trap Waste	To be confirmed		Licensed liquid waste removal contractors	3

### 4.3 OPERATIONAL PROCESSES

#### 4.3.1 BLENDING, BULKING AND MIXING

After receipt of feedstock into the concrete Mixing Bays, the various materials are mixed together to achieve the correct proportion of carbon to nitrogen required for optimal composting – the ideal ratio being 25-30(carbon):1(nitrogen). A wood chipper will be used to reduce oversized material (generally green waste such as large branches etc).

Bulking agents high in carbon will be added to enhance porosity and absorb excess moisture. Bulking agents are typically coarse, low density inert blending materials such as straw, sawdust or hay that help produce and open structure in the mixture.

Poultry manure and green waste will form the basis of each composting pile. The two materials will be mixed together in a ratio of 4 parts green waste to 1 part poultry manure to form a base or starter material to which various feedstocks can be added.

The starter base is sprayed with EWS compost formula<sup>2</sup>. The EWS formula contains microflora that act to significantly reduce odours, as well as act as a catalyst for the composting process. This mix is then formed into a base 0.3m to 0.6m deep (depending on the amount of free liquid in the raw material).

The other organic material (hatchery waste, tannery waste or grease trap waste), as it becomes available, is placed onto the prepared base in a ratio of 1 part raw material to 4 parts base material (by volume). The materials are then mixed together with a front end loader to ensure a homogenous blend with an open structure sufficient to facilitate complete aeration of the composting pile. Bulking agents will be added at this stage if necessary.

<sup>2</sup> The EWS formula is the intellectual property of the supplier and details are not publicly available in the technical literature. Technical data can be obtained and provided to Council if required.



It should be noted that feedstock other than green waste and poultry manure (which are used to prepare the starter base and therefore will be present in all piles) will not be co-mingled. Each of the raw materials will be mixed with the prepared base separately for quality control purposes ie, hatchery waste (Material A) will be mixed with the base material; tannery waste (Material B) will be mixed with the base material; grease trap waste (Material C) will be mixed with the base material; however, materials A, B and C will never be mixed together as part of the composting process.

**Note:** All preparation and mixing takes place within the concrete mixing bays.

**Note:** The Operations Manager will ensure that sufficient poultry manure and green waste is available and mixed prior to the material arriving on site so that blending and processing can occur promptly.

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#### 4.3.2 FORMATION OF THE WINDROWS

Once mixed, the raw material blend is moved onto the Composting Pad where it is formed into elongated piles (windrows) mounded approximately 4-5m high and 6-7m wide. The length of the piles will be orientated north-south across the Pad to maximise sunlight and air flow, and to ensure free drainage of any leachate away from the windrow and into the leachate collection and storage dam.

The length of each windrow will vary depending upon the volume of material received and the length of the Processing Pad. More material will be mixed and added to the pile as it is received.

The aeration pipes are placed on the Composting Pad prior to the placement of the blended material. The blended material is then laid directly on top of the pipes and the pile built up around them.

Once the materials have been formed into windrows they will be top dressed with a 150mm thick layer of the base material and sprayed with EWS compost formula to reduce odour and accelerate composting time.

The aeration pipes consist of lengths of PVC piping with 16mm holes drilled in at 300mm intervals. The ends are covered with fly mesh to prevent the infiltration of insects. The pipes suck in fresh air from outside the pile and feed it directly into the centre of the pile. As the temperature of the pile increases the cooler air from outside the pile will be drawn into the pile through the pipes. This passive aeration process is very efficient, eliminating the need to turn the pile and greatly speeding up the composting process.

The piles reach their internal optimum temperature of 60<sup>o</sup>-70<sup>o</sup> C within 24 hours of being formed, and then maintain this temperature for 10-12 weeks. During this time there will be a significant loss of moisture from the pile due to steam being produced and escaping. The moisture content of each pile will be monitored over this period to determine moisture requirements. Moisture can be added as needed by means of low pressure, low flow sprinklers positioned over the top of each pile. Water for this purpose will be sourced from the leachate dam. A pump will be used to deliver water from the dam to the sprinklers.

Full maturity of the pile is reached when the temperature of the pile stabilises in the range of 45<sup>o</sup>-55<sup>o</sup>C (usually 12 -16 weeks after the process commences).

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#### 4.3.3 THE MATURE PILE

Once mature, the outer layer of the finished pile is collected and used to form the nucleus of a new pile. This outer layer needs to be further composted as, being located on the outer perimeter of the pile, it would not have been subjected to the same high temperature as the inner section of the pile. Therefore it must be retained for further composting to ensure optimal temperatures are reached and the material is fully cured. When used as the starter material for a new pile this outer layer serves as an inoculant for the new raw material and in this way further accelerates the composting process.

The inner part of the mature pile (now known as the final or cured product) will remain in place in the windrow formation until it is transported off site, although a portion of the curing batch will be used to cover freshly made windrows. Stockpiles will be wetted down during high wind events to guard against particulate dispersion.

#### 4.4 PROCESS CONTROL

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##### 4.4.1 SITING AND ORIENTATION OF WINDROWS

Siting of the windrows is critical to facilitating airflow and to taking advantage of the prevailing atmospheric conditions such as sunlight and wind exposure. To ensure the homogeneity of product and uniformity of processing time, the stockpiles will be subjected to the same conditions of exposure; this usually dictates a north-south alignment which will expose the piles to maximum sunlight, and the avoidance of shade.

The aspect and size of the windrow and the porosity of the material affect how well passive aeration systems work. These factors also affect heat loss and thus the internal pile temperature. Stabilisation of the pile is enhanced by controlling the size and porosity of the windrow so that it is both small enough (in cross-sectional area) and 'fluffed up' enough to allow adequate oxygen transfer, yet large enough by critical mass to retain some heat.

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##### 4.4.2 TEMPERATURE

The control of temperature is an important aspect of composting as the metabolic heat generated by the microorganisms within the compost pile elevates the temperature of the pile. Pile temperature is accepted as an appropriate indicator that aerobic conditions are being maintained.

Temperatures within 40<sup>o</sup>-60<sup>o</sup>C promote maximum biological activity. An elevated temperature (>60<sup>o</sup>C) promotes rapid decomposition rates, and temperatures in excess of 55<sup>o</sup>C for 3 days are effective in killing weed seeds. Excessive temperatures can occur, and temperatures can exceed 70<sup>o</sup>C, which limits microbial activity, delays stabilisation and presents a risk of spontaneous combustion.

A significant advantage over turned piles is that the temperature of passively aerated windrows is able to be more consistently maintained.

Daily measurement and recording of temperature will be undertaken as part of quality control procedures.

Suboptimal temperatures will be rectified by:

- adjustment of the moisture content of the compost pile (wetting or drying as appropriate)
- addition of more EWS compost formula/poultry manure
- modification of the pile profile, ie. increasing or decreasing the cross sectional area

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#### 4.4.3 OXYGEN

To minimise odour generation and to maximise the rate of composting, the concentration of oxygen in the compost pile will be kept between 10-14%, with the optimum concentration being about 12% (Standards Australia AS4454-2002).

Oxygen levels will be maintained by

- observing proper operational protocols when mixing feedstock, to ensure that sufficient bulking agents are included to achieve an open structure prior to formation of windrows
- undertaking regular inspections of the aeration pipes to ensure they are free from blockages and structural weakness
- laying the aeration pipes at regular and consistent intervals along the length of the windrow
- orientating the windrow to maximise seasonal air flows.
- undertaking regular monitoring of oxygen levels throughout the composting process

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#### 4.4.4 MOISTURE

Moisture loss occurs during the composting process as a result of the evaporative cooking of the pile, making composting a net user of water.

Inadequate moisture can reduce efficiency in winter and generate excessive heat in summer; consequently water often needs to be applied to maintain optimal moisture levels and to avoid spontaneous internal combustion of a stockpile. Replenishment of the piles will be achieved by rainfall or the reuse of leachate water from the dam (via a sprinkler system).

The optimum moisture level for a compost pile is between 55% and 60%.

#### 4.5 QUALITY CONTROL

Successful composting depends upon providing conditions conducive to the preferential growth of desirable microbes. Careful management and monitoring is crucial to avoid anaerobic conditions and emission of offensive odours. A high degree of control of moisture and



temperature, as discussed in the preceding sections, is required to achieve a satisfactory product.

Documented monitoring of all critical points in the production cycle will be undertaken regularly and consistently to maintain process and product quality, and to identify inefficiencies within the production process at an early stage.

Testing will be conducted on-site by the Operations Manager using lightweight and portable testing equipment.

The following parameters will be tested:

- temperature (using a windrow thermometer)
- moisture content (using the 'squeeze test')
- pH (using a pH test kit)
- maturity (using a compost maturity kit that measures carbon dioxide and ammonia concentrations)
- oxygen status (using a portable, combined oxygen and temperature meter)

The sampling techniques will be outlined in the facility's Environmental Management Plan.

#### 4.6 THE FINISHED PRODUCT

##### 4.6.1 END USE

The finished product will be sold in bulk to landscaping companies, large nurseries, and primary producers as soil conditioner, compost or mulch.

##### 4.6.2 CERTIFICATION

Quality Assurance will be undertaken as the market and regulations demand.

Currently, product sold as compost and mulch does not require mandatory testing; however, if sold as soil conditioner the product must be registered and tested for quality and consistency.

Commercial laboratory testing will be undertaken by a NATA accredited laboratory should formal certification of the end product be sought, otherwise day to day production processes and product management will be undertaken with reference to the relevant voluntary Australian Standards (AS4454-2003 - Composts, soil conditioners and mulches); AS3743-2002 - Potting Mixes; and AS4419-2002 - Soils for landscaping and garden use).

The facility will be equipped to test representative samples of each batch on-site for pH, ammonia levels and moisture content to ensure consistency and quality of product.

#### 4.7 HOURS OF OPERATION

The proposed facility will operate Monday to Friday between the hours of 7am and 8pm. However, the Proponent is seeking consent for 24 hour site access to attend to any management and monitoring issues that may arise outside the hours of 7am and 8pm. It is also possible that the delivery of feedstock or despatch of finished product may be required outside these hours to comply with supplier or customer needs. Such occurrences will be kept to a minimum.

#### 4.8 STAFF

One full time Operations Manager will be present at the facility during operating hours. The Operations Manager will also be on call 24 hours 7 days a week to attend to any management issues.

The Operations Manager will be responsible for all aspects of the day to day operation of the facility, and will be suitably trained to undertake these tasks.

#### 4.9 PLANT AND EQUIPMENT

The following plant and equipment will be used and stored at the site:

- Trucks
- Fire Truck
- Front end loader
- Wood chipper
- Water cart for the wetting down of internal roads
- Generator

All vehicles, plant and machinery will be securely housed on site in an enclosed steel framed shed.

Plant and equipment will be subject to regular servicing and maintenance to ensure optimum output and efficiency.

All trucks will be required to wash down chassis and trays before leaving the premises.

## 5 ENVIRONMENTAL ASSESSMENT

The following section addresses each of the Environmental Objections (Section 4) and the Minimum Design Requirements (Section 5) of the NSW Department of Environment and Conservation's Environmental Guidelines: Composting and Related Organics Processing Facilities, July 2004 ('the Guidelines').

## 5.1 AIR QUALITY

Given the nature of the prevailing winds, the surrounding undulating topography and vegetation cover, and the substantial separation distance between the proposed facility and nearest dwelling (2.4km north-west), it is considered that the proposed development is unlikely to have any significant adverse air quality impacts upon the neighbouring properties. Moreover, strict management of the composting process will be undertaken to minimise the release of odours, gases and particulate matter in the first instance.

### 5.1.1 ODOUR

*Objective: No emissions of offensive odours outside the boundaries of the premises.*

Whilst raw organic material contains a variety of odorous compounds, these compounds are not necessarily released as odour during the composting process **provided the process conditions are optimised**<sup>3</sup>. A well managed, efficiently operated, **aerobic** composting pile only produces minor quantities of odorous gases<sup>4</sup>.

It is anaerobic conditions within the centre of the pile that result in the production of odours. Typically these odours are released when the pile is turned. Therefore, maintaining an aerobic (high oxygen) environment is the key to minimising odours and maximising the rate of decomposition. Strict management of the height, bulk, moisture, oxygen content and temperature of the piles will minimise the potential for offensive odours to produced and released.

The advantage of PASP system is that the piles **do not require turning** thereby significantly reducing the opportunity for the emission of odours. Furthermore, the application of the EWS compost formula removes major odour sources, as it possesses odour consumption properties. For example, when the formula is mixed with poultry manure odour emissions are reduced by up to 60%<sup>5</sup>.

It is noted that Armidale Dumaresq Council have adopted a building exclusion zone of 900m from the ADC Sewer Treatment Facility which is considered (based on anecdotal evidence) to produce more offensive odour than a composting facility. The existing separation distances of **over 2 km** from the proposed development is therefore considered adequate to the nature of the facility and the protection of the local amenity in terms of odour, noise and visibility.

<sup>3</sup> Goldstein 2002; Gage 2003 referenced in Environmental Guidelines; Composting and Related Facilities, Department of Environment and Conservation Change(NSW), July 2004:7

<sup>4</sup> EIS Guideline: Composting and Related Facilities, DUAP, 1996:5

<sup>5</sup> Based upon the operation of the PASP using the EWS compost formula at SA composting facility, Murray Bridge



#### 5.1.1.1 MANAGEMENT AND MITIGATION MEASURES

An immediate response to odorous emissions will be undertaken by the Operations Manager and will consist of:

- Spraying loads with EWS formula if excess odour is detected at the time of unloading.
- Spraying material with EWS formula and covering with green waste once they have been blended and mixed.
- Increasing air flow to the piles and adding more carbon sources/bulking agents.
- Prohibiting the delivery of certain wastes during aggravating weather conditions (eg. unfavourable wind conditions, high temperatures).
- Avoiding the unloading of feedstock in adverse weather conditions.
- Maintaining an odour complaints register to track offensive odour events against weather conditions and waste type.
- Production management:
  - ◆ processing material on day of receipt, particularly Category 3 waste or, when this is not possible:
    - minimising the quantity of readily biodegradable organics exposed to the air by covering with a 15cm thick layer of curing compost, or spraying with EWS compost formula
    - keeping stockpile quantities low and as recommended in the Guidelines.

#### 5.1.2 DUST AND PARTICULATE MATTER

*Objective: Minimise particulate matter emissions from the facility.*

The existing dust deposition and dust concentration levels in the area surrounding the proposed development are considered typical of a rural area remote from industrial emissions sources. Air quality in the area is largely determined by emissions from natural sources, road traffic and agricultural activity.

Particulate matter associated with the operation of the facility will be managed through the implementation of the following environmental controls:

- Internal roads will be wetted down.
- Trucks will wash down before leaving the premises so that residual material is not tracked to areas outside the facility.
- Cured product leaving the premises will be covered or wetted down as necessary and as determined by the Operations Manager

- Windrows and stockpiled material will be kept sufficiently moist or covered to prevent the emission of air borne particles<sup>6</sup>.
- Defining traffic areas.
- Imposition of vehicle speed limits.
- Planting a vegetative windbreak to reduce wind velocities and contain particulate matter on site.
- Continued monitoring of meteorological conditions and consideration of weather data in the timing of unloading, loading and mixing operations.
- Constraints on work during unfavourable weather conditions.

Any complaints received regarding particulate matter pollution will be documented and investigated.

It is noted that the nature of the feedstock to be received and processed by the proposed facility is inherently moist and dense which would result in negligible emission of particulate matter from these sources. Moreover, the PASP composting process does not require turning of the windrows which will further minimise the opportunities for the release of particulate matter.

#### 5.1.3 METHANE GAS EMISSIONS

*Objective: Minimise emissions of methane to air and diffusion through soil strata such that the risk to humans in confined spaces (such as explosions and suffocation) is minimal.*

The production and emission of methane gas is mostly associated with anaerobic composting systems. The proposed facility will operate aerobically with a series of pipes drawing oxygen into the composting piles. The windrows will be orientated to take advantage of natural air flows and the piles will be monitored daily to ensure that anaerobic conditions do not develop.

#### 5.1.4 EMISSIONS OF NITROGEN OXIDES, SULPHUR OXIDES AND NON-METHANE ORGANIC COMPOUNDS

*Objective: Minimise emissions of nitrogen oxides (NO<sub>x</sub> and NO), sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), sulfur oxides (SO<sub>2</sub> and SO<sub>3</sub>) and non-methane volatile organic compounds (NMVOC) whenever using gas flare or electricity-generating equipment.*

The proposed composting facility will not be using gas flare or electricity-generating equipment.

<sup>6</sup> DEC(NSW) recommends a moisture content of 25%(m/m), Environmental Guidelines: Composting and Related Facilities, July 2004

## 5.2 WATER QUALITY

*Objective: Prevent water pollution. Surface or underground discharges of leachate and water from the facility must not pollute groundwater or surface waters.*

The working surfaces of the facility and the leachate barrier, collection and storage system have been designed in accordance with the Minimum Design Requirements for the Protection of Water (Section 5 of the Guidelines). **Section 3** of the SEE discusses the design of the facility in detail and is repeated in brief below.

Surface water controls have been designed to ensure all runoff from the facility is appropriately managed and that clean water and dirty water do not mingle.

All uncontaminated surface runoff ('clean water') from the upstream catchment will be prevented from entering the Processing Area by means of a diversion bank and drain which will be constructed along the southern aspect of the Processing Area. This bank will divert the clean water around the perimeter of the operation to discharge into the natural drainage system. A clean water dam exists to the south of the leachate dam which will collect a lot of this clean water runoff.

All runoff from the composting facility is regarded as wastewater ('dirty water') and will be directed to a purpose designed leachate storage dam located downslope of the operation.

The leachate dam will have a capacity of approximately 1000m<sup>3</sup> and will be used to capture, contain and reticulate drainage runoff from the Processing Area. Sediment will be allowed to settle out before the leachate water is recycled as process water used for wetting down the piles

Leachate will not be permitted to enter the subsoil or groundwater system unless, over time, testing demonstrates consistent compliance with the DECCW water quality criteria. Approval may then be sought from the DECCW for release of water to the environment.

Regular inspection of the storage dam will be undertaken to monitor odour levels, sediment build-up, discoloration, structural integrity and available capacity.

Hydrological assessment and monitoring of the water quality will be undertaken as required by the conditions of the Environment Protection Licence.

Given these management and operational measures it is not envisaged that water quality will be impaired by the operation of the composting facility.



## 5.2.1 WORKING SURFACES

*The working surfaces, including the incoming organics, final product, process residuals and contaminated material storage areas, the active composting pad (for windrow composting) and access roads, must:*

Minimum Design Requirements	Does this Proposal Comply?
<ul style="list-style-type: none"> <li>• be bunded and graded sufficiently to prevent both run-on and run-off of surface water</li> </ul>	<p><b>Yes.</b> See attached design plans in <b>Attachment B</b> and <b>Sections 3.2</b> and <b>3.2.1</b> for details of bunding and grades.</p>
<ul style="list-style-type: none"> <li>• be designed and constructed from an inert low-permeability material such as compacted clay, modified soil, asphalt or concrete over a compacted base able to support, without sustained damage, the load of material on it and the load of any machinery used in the composting facility</li> </ul>	<p><b>Yes.</b> Blending and mixing of feedstock and composting of windrows will be conducted on a low-permeability clay lined working surface designed to protect all surface and ground water sources from leachate.</p> <p>The Processing Area will be clay lined over a compacted gravel base and the Mixing Bays will be made of concrete floors and walls. See <b>Section 3.2.1</b> for detail.</p>
<ul style="list-style-type: none"> <li>• be able to support all structures, machinery and vehicles as applicable and allow access to any utilised part of the processing site, irrespective of the weather conditions; vehicles may include:           <ul style="list-style-type: none"> <li>• transport vehicles used for the delivery of organics and the transport of finished products</li> <li>• mobile equipment used in all phases of all the processes operated on the site</li> <li>• fire-fighting vehicles and equipment.</li> </ul> </li> </ul>	<p><b>Yes.</b> The proposed Processing Area and Feedstock Receiving Zone will be capable of supporting all plant, equipment and vehicles in all weather.</p>

## 5.2.2 LEACHATE BARRIER SYSTEM

*The material processing or storage areas of the facility must have a leachate barrier system that forms a secure barrier between the groundwater, soil and substrata and the composting or stored organics.*

Minimum Design Requirements	Does this Proposal Comply?
a clay or modified soil liner consisting of at least 600mm of recompacted clay with an in-situ permeability of less than $10^{-7} \text{ ms}^{-1}$ . Such liners should be placed in successive layers up to 300mm uncompacted thicknesses. Each underlying layer should be scoured to prevent excessive permeability due to the lamination.	<b>Yes</b> – refer to <b>Section 3.2.2</b> for detail

## 5.2.3 LEACHATE STORAGE SYSTEM

*The design of the leachate storage system must at least comply with the following requirements:*

Minimum Design Requirements	Does this Proposal Comply?
Leachate must be collected and stored in either a dam that is lined or in above-ground storage tanks.	<b>Yes.</b> Run-off from the Feedstock Receiving Zone and Composting Pad will be into a purpose built, clay lined leachate dam.
Leachate dams or tanks must have monitoring equipment installed (such as high-level alarms that are interlocked to the discharge pump or line), or the occupier must implement management practices to ensure that they cannot be overfilled.	<b>Yes.</b> The facility and daily operations will be overseen by the Operations Manager on a full-time basis who will be responsible for implementation of the appropriate management practices, and for conducting regular inspections of the water level in the dam and the reuse of the dam water.
If the leachate dam or tanks are open at the top, they must be capable of at least accepting the run-off or leachate generated by any 1-in-10-year, 24-hour-period storm event without overflowing.	<b>Yes.</b> The capacity of the leachate storage dam has been calculated for a 1-in-10 year, 24 hour storm event. Required storage capacity is $911\text{m}^3$ based on $4.5\text{mm}/\text{hour}$ and a rate of discharge of $66\text{L}/\text{s}$

## 5.2.4 SURFACE WATER CONTROLS

*The surface water controls must at least meet the following requirements:*

Minimum Design Requirements	Does this Proposal Comply?
The facility must be designed to prevent surface water from mixing with the organics received and processed at the premises and the final products, process residuals and contaminated materials stored at the premises.	<b>Yes.</b> A diversion bund will be constructed above the facility to ensure surface water runoff from the catchment area is diverted around the Feedstock Receival Zone, Processing Pad and leachate storage dam.
All water that has entered processing and storage areas and water that has been contaminated by leachate must be handled and treated in the same manner as leachate.	<b>Yes.</b> All surface runoff from the Feedstock Receival Zone and Composting Pad will be treated as dirty water and directed to the leachate storage dam via a swale drain and sediment trap.
All surface water that has been collected from areas such as cleared or non-vegetated surfaces must be treated in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004).	<b>Yes.</b> Erosion and sediment control measures will be put in place in accordance with Landcom's, Managing Urban Stormwater: Soils and Construction, Vol 1, July 2006, during the construction and operational phase of the facility.
Exposed areas at the composting and related organics processing facility site must be minimised. The occupier must not clear more than the minimum area needed.	<b>Yes</b> Only minimal clearing will be undertaken in the immediate vicinity of the Feedstock Receival Zone and Processing Pad. The remainder of the site will be left undisturbed.
The facility should be designed to contain one or more catch basins capable of collecting all surface water generated from the design of a 1-in-10 year, 24-hour-period storm event without overflowing.	<b>Yes.</b> The storage capacity of the leachate dam has been calculated for a 1-in-10 year, 24 hour storm event + 10%.
It should be designed such that any surface water that has come in contact with the processing and/or storage area and/or that has been contaminated by leachate must be handled in the same manner as leachate.	<b>Yes.</b> All surface runoff from the Feedstock Receival Zone and Composting Pad will be treated as dirty water and directed to the leachate storage dam via a swale drain. The leachate will be contained in the dam until it evaporates or is reused as process or irrigation water for the windrows.



### 5.3 SUITABILITY OF INCOMING ORGANICS

*Objective: Ensure that incoming organics do not have negative environmental impacts (such as air quality impacts) or amenity impacts (such as odour)*

The Operations Manager will be responsible for inspecting all incoming loads to ensure they are free from contaminants such as glass, plastic, metal or other foreign material.

Incoming materials will be processed as soon as possible after arrival, if not immediately. Stockpiling of incoming organics will be minimised and deliveries co-ordinated with the production schedule to ensure the receipt of manageable quantities arriving on site at any one time.

In the event that material needs to be stockpiled the procedures outlined in **Section 5.5** will be adhered to in order to minimise adverse environmental and amenity impacts.

### 5.4 SAFE STORAGE AND DISPOSAL OF PROCESS RESIDUALS AND CONTAMINATED ORGANICS

*Objective: Prevent water pollution and amenity impacts (such as odour and dust).*

Any contaminated or hazardous material will be documented and disposed of in accordance with the POEO Act and the Protection of the Environment (Waste) Regulation 2006.

Any process residuals, contaminated organics, or sediment from desilting the leachate dam will be stored within this area until they can be lawfully disposed of.

It is anticipated that securing organic waste from reliable and reputable sources, and screening of the raw material before it is unloaded into the facility will minimise the receipt of contaminated organics in the first instance.

### 5.5 STOCKPILING

*Objective: To minimise stockpiling of unprocessed and processed organic materials above that required for processing or to meet market requirements*

The proposed operation will manage the quantity of received materials in accordance with projected or actual production schedules and market demand, thus enabling most material to be processed on the day of receipt or shortly thereafter. It is therefore not anticipated that large quantities of feedstock or finished product will need to be stored on site.

The quantity of any stockpiled product will be kept low and as recommended in the Guidelines: ie.

- *finished product*: not greater than 18 month's worth of production
- *raw organics* received each year: not to exceed projected or actual production schedules.
- *Category 1 organics*: not to exceed 10% of the facility's annual processing capacity and not to be stored for more than 2 months.
- *Category 2 and Category 3 organics*: not to exceed one day's production, unless stored in moisture and vermin proof bins located on concrete sealed and bunded washdown area that is linked to the leachate collection system.

Any rapidly biodegradable material that cannot be processed on the day of receipt will be covered with a 15cm thick layer of curing compost.

Any feedstock or finished product that is temporarily stored on site will be contained within the Processing Area and Composting Pad. These areas will be clay lined (Composting Pad) or have a concrete base (Mixing Bins) and will be linked to the leachate collection and storage system.

Any stockpiled finished product will be monitored, and curing piles stockpiled for any length of time will be turned to maintain aerobic conditions and to distribute moisture and leachate within the pile.

## 5.6 NOISE

*Objective: Minimise noise emissions.*

The proposed development is to be conducted in a sparsely populated rural area with substantial separation distances from any sensitive noise receptors. The existing noise environment around the site of the proposed development is typical of a rural area.

The type of machinery to be used during the construction and operational phase of the facility will be the same as that already in common usage in rural/agricultural settings – front end loaders, tractors, generators, wood chippers, trucks. The noise generated from these vehicles and equipment will be in keeping with the type of noise expected in a rural area.

The main source of noise from the site will be that associated with the arrival and departure of trucks, the use of a front end loader to mix the material, and a wood chipper to down size green waste. Such machinery will only be used on weekdays between the hours of 7am and 8pm

and/or in accordance with the conditions of any Environment Protection Licence and the NSW Industrial Noise Policy, 2000. The setback of the facility from the road will assist in the attenuation of noise levels from the facility.

All plant and equipment will be serviced regularly and maintained in good order at all times to minimise excessive noise from poorly maintained equipment.

## 5.7 LITTER

*Objective: The local amenity must not be degraded by litter emanating from the composting and related organics processing facility.*

There is minimal opportunity for any of the feedstock received at the facility to contain litter. There is also minimal potential for litter to be produced within the facility. However, the following management practices will be employed to ensure that no litter will emanate from the facility.

- Incoming loads will be thoroughly screened to ensure they are free from contaminants and other materials that are likely to cause litter.
- The Operations Manager will undertake regular inspection of the facility and surrounding area to ensure no litter is scattered around.
- In the event that litter does enter the premises it will be disposed of appropriately.
- The facility will be enclosed by 1.8m fencing which will contain any airborne litter within the confines of the operations area.
- All delivery trucks are to use the Wash Down Bay prior to leaving the site so that residual material such as mud, dirt or organic waste is not tracked back out onto the public road system.

## 5.8 VERMIN

A 1.8m perimeter fence around the facility will act as a physical barrier to the entry of animals (stock, pests, vermin) onto the site.

Stockpile (**Section 5.5**) and Odour (**Section 5.1.1**) management techniques, and baiting, will further assist in controlling vermin and pest populations at the facility.



## 5.9 SECURITY

*Objective: Ensure that the premises are secure.*

The site is remote from built-up areas and is unlikely to attract unwelcome visitors. Nonetheless, access to the site will be controlled by fencing and lockable gates.

The facility will be enclosed by 1.8m high perimeter fencing with padlocked entry gates to restrict public access to the area.

The two entry points onto the property off Balala Road will be secured by gates which will be locked at all times when the facility is unattended.

Signage will be erected at the site entrance stating the nature of the operation being undertaken and prohibiting unauthorised entry.

All records relating to the operation of the facility will be secured in the Site Administration Office.

## 5.10 FIRE

*Objective: To ensure that the facility is not a fire risk and that the facility is adequately prepared in the event of fire.*

The surrounding area of the proposed development has a low population density with no dwellings located within 2km of the site and no dwellings located on the subject property. The risk to life and property in the event of a fire is therefore considered low.

Whilst the local Balala Rural Fire Service is located only 17km from the site and notwithstanding the above, the facility will be largely self-sufficient for fire fighting purposes to ensure prompt hazard control.

The entry/exit points off Balala Road will provide clear and direct access for fire fighting and emergency services and for facility personnel to evacuate from the site if need be. The two access points will be linked by an all-weather (gravel) internal road.

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### 5.10.1 FIRE HAZARDS

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#### 5.10.1.1 COMPOST PILE

Excessive temperatures can occur if the composting piles are not managed efficiently. Temperatures within the compost pile can exceed 70°C (and may reach 80°C) presenting a risk of spontaneous combustion. Self heating within the centre of the compost pile can give rise to smoldering fires within a windrow.

Inadequate moisture can generate excessive heat in summer. In such instances, the regular application of water to the piles is required to avoid spontaneous internal combustion of a stockpile.

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#### 5.10.1.2 HAZARDOUS AND COMBUSTIBLE MATERIAL

All hazardous and combustible material will be secured away from the windrows in the Vehicle, Machinery and Maintenance Shed, located approximately 55m to the north-west of the Processing Pad.

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### 5.10.2 FIRE MANAGEMENT

Fire safety precautions at the facility will include:

- Developing a spontaneous combustion management plan which will include:
  - ◆ Controlling pile dimensions
  - ◆ Monitoring pile temperature to ensure it is kept below 80°C to avoid risk of spontaneous combustion
- Maintaining an area free of vegetation and fuel loads around the Composting Pad.
- Maintaining a dedicated water storage tank (metal, concrete or underground) with minimum capacity of 10,000 litres for fire fighting purposes, and fitted with a 65mm Storz outlet with Gate or Ball valve for fire hose attachment. Site specific requirements will be confirmed in consultation with the local Rural Fire Service.
- Regular testing and maintenance/service checks of fire truck and fire fighting equipment.
- Adequate fire management training to be undertaken by Operations Manager.

### 5.11 CLOSURE

*Objective: To ensure that, after closure, the composting and related organics processing facility does not cause environmental harm.*

An Operations Closure Plan will be prepared by the facility's licensee and submitted to the DECCW for approval prior to the closure of the facility. The Closure Plan will demonstrate the financial capacity of the licensee to undertake all necessary site remediation and outline the decommissioning and rehabilitation of the site.

## 6 ENVIRONMENTAL MONITORING, INSPECTION AND REPORTING

An environmental monitoring, inspection and reporting schedule will be developed prior to commencement of operations and in consultation with appropriately qualified consultants.

The Proponent understands that the design of an environmental monitoring and reporting regime may require the establishment of baseline data, by means of specialist studies and modelling, in order to establish benchmarks against which monitoring results can be measured.

Monitoring of odour, noise and particulate matter will be achieved through the daily visual observations of the Operations Manager and by means of feedback via a formal Complaints Register. This Register will be maintained by the Operations Manager and complaints responded to appropriately.

Water quality monitoring will include regular testing of water from the leachate dam and the monitoring of ground water via bores strategically placed along the hydraulic gradient, with at least one bore located downstream of the facility as a minimum. A range of parameters will be tested to assess water quality such as pH, electrical conductivity (EC) (salt measure), total suspended solids (TSS), nutrients and heavy metals. These monitoring measures will be developed in consultation with a geotechnical/hydrological engineer during a site specific assessment.

Visual inspection of sediment and erosion control safeguards (dams, contour banks, channels and diversions) will be undertaken weekly and after periods of heavy rainfall to ensure their structural integrity. Excess sediment will be removed from banks and drains and repairs will be undertaken as necessary.

The leachate dam will be inspected weekly and after any significant rainfall event (>25mm in a 24 hour period), to ensure it has at least 50% of its capacity available for runoff/sediment retention. If required, the dam will be desilted as soon as practicable. It should be noted however, that the South Australian composting operation has not had to desilt its leachate dam during its 3 years of operation. Desilting will therefore remain as a contingency option, not necessarily part of the ongoing maintenance regime.

Environmental monitoring, reporting and mitigation measures will be detailed in an Environmental Management Plan (EMP) which will form the Procedures and Work Instructions Manual for the facility. In developing the EMP, reference will be made to the *ISO 14000 Environmental Management standards*.

The EMP will be formulated around the conditions of the development consent and the Environment Protection Licence, and will consolidate the various monitoring requirements into a single document.



Results of all testing, inspection and monitoring will be recorded in an environmental audit log and kept on site at all times.

Maintenance and monitoring regimes will be reviewed regularly to reflect the performance outcome of ongoing monitoring, and to optimise the maintenance regime.

## 7 STATUTORY PROVISIONS

The following sections identify all relevant State legislation applicable to the proposed development.

### 7.1 PROTECTION OF THE ENVIRONMENT AND OPERATIONS ACT 1997

The proposed development is a premises-based Scheduled Activity pursuant to Clause 12 Schedule 1 Section 5 of the POEO Act.

#### *Clause 12 Composting*

(1) *This clause applies to "composting", meaning the aerobic or anaerobic biological conversion of organics into humus-like products:*

- (a) by methods such as bioconversion, biodigestion or vermiculture, or*
- (b) by size reduction of organics by shredding, chipping, mulching or grinding.*

(2) *The activity to which this clause applies is declared to be a scheduled activity if:*

*(a) where it takes place inside the regulated area, or takes place outside the regulated area but receives organics from inside the regulated area (whether or not it also receives organics from outside the regulated area):*

***(i) it has on site at any time more than 200 tonnes of organics received from off site, or***

***(ii) it receives from off site more than 5,000 tonnes per year of non-putrescible organics or more than 200 tonnes per year of putrescible organics<sup>7</sup>, or***

*(b) where it takes place outside the regulated area and does not receive organics from inside the regulated area:*

With regard to (i), the facility will have more than 200 tonne of organic material on site at any one time. This material will consist of feedstock waiting processing and mixing, and mixed organics formed into windrows, which will stay in situ for 10-12 weeks.

With regard to (ii), the proposed facility will receive over 200 tonne of putrescible organics (hatchery waste and poultry manure) per year and over 5000 tonnes of non-putrescible waste (green waste) per year.

<sup>7</sup> that is, waste that is food or animal matter, including dead animals or animal parts, or unstable or untreated biosolids.

An Environment Protection Licence will be required for the premises at which the activity will be undertaken.

## 7.2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

### 7.2.1 SECTIONS 91 AND 93 - INTEGRATED DEVELOPMENT

The proposed development is integrated development pursuant to section 91 of the EP&A Act as an Environment Protection Licence from the DECCW is required to carry out the scheduled activity as detailed in **Section 7.1**.

<i>Act</i>	<i>Provision</i>	<i>Approval</i>
<i>Protection of the Environment Operations Act 1997</i>	ss 43 (b), 48 and 55	Environment protection licence to authorise carrying out of scheduled activities at any premises (excluding any activity described as a "waste activity" but including any activity described as a "waste facility").

General Terms of Approval are therefore sought from the concurrence authority (DECCW) and integrated development consent sought from Uralla Shire Council under section 93 of the EP&A Act.

### 7.2.2 SECTION 79C EVALUATION

Part 4, Section 79C(1) of the Environmental Planning and Assessment Act, 1979 requires a consent authority, when determining a development application, to take into consideration the following matters that are of relevance to the proposed development.

#### 7.2.2.1 SECTION 79C (1)(A) – STATUTORY PLANNING CONSIDERATIONS

- (a) *the provisions of:*
- i. any environmental planning instrument, and*
  - ii. any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority, and*
  - iii. any development control plan, and*
  - iv. the regulations (to the extent that they prescribe matters for the purposes of this paragraph)*

#### Local Environmental Plan

The relevant Local Environmental Plan is the Uralla Local Environmental Plan 1988, as amended (ULEP).

The subject property is zoned 1(a) Rural pursuant to the ULEP. The proposed development is permissible with consent and is compatible with the zone objectives as listed below.

**ZONE NO. 1(a) RURAL - OBJECTIVES OF ZONE**

The objectives of this zone are:

- (a) to enable the continuation of traditional forms of rural land use and occupation;*
- (b) to enable other forms of development which are associated with rural activity or which require a rural location and which are in keeping with the rural character of the land and compatible with existing or likely future small holdings;*
- (c) to ensure that the type and intensity of development is appropriate in relation to the characteristics of the land and the rural environment and consistent with the optimisation of public services and amenities;*
- (d) to provide a range of holdings to meet the changing needs and demands of rural dwellers;*
- (e) to ensure that a scenic backdrop is maintained around the urban areas generally and specifically around Uralla village;*
- (f) to ensure that development of land in that part of the zone which is liable to flooding is carried out in a manner appropriate to the flood hazard;*
- (g) to ensure that development of land in that part of the zone which is subject to bushfires is carried out in a manner which complies with rural bushfire safety standards; and*
- (h) to protect, enhance and conserve:*
  - (i) agricultural land, in a manner which sustains its efficient and effective agricultural production potential;*
  - (ii) soil stability by controlling and locating development in accordance with soil capability;*
  - (iii) forests of existing and potential commercial value for timber production and soil conservation, water catchment protection and farm shelter values;*
  - (iv) valuable deposits of minerals, coal, petroleum and extractive materials by controlling the location of development for other purposes in order to ensure the efficient mining or extraction of those deposits;*
  - (v) trees and other vegetation in environmentally sensitive areas where the conservation of the vegetation is significant to scenic amenity or natural wildlife habitat or is likely to control land degradation;*
  - (vi) water resources, for use in the public interest;*
  - (vii) areas of significance for nature conservation, including areas with rare plants, wetlands and significant habitat; and*
  - (viii) places and buildings of archaeological or heritage significance, including the protection of Aboriginal relics and places;*
- (i) to prevent the unjustified development of prime crop and pasture land for purposes other than agriculture;*
- (j) to facilitate farm adjustments;*



- (k) to minimise the cost to the community of -
  - (i) fragmented and isolated development of rural land; and
  - (ii) providing, extending and maintaining public amenities and services; and
- (l) to provide land for future urban development, for future rural residential development and for future development for other non-agricultural purposes, in accordance with the need for that development.

#### Development Control plans

There are no Development Control Plans that apply to this proposed development.

#### Draft Environmental Planning Instruments

There are no draft Environmental Planning Instruments that require consideration in relation to this proposal.

#### Local Environmental Studies

There are no local Environmental Studies that require consideration in relation to this proposal.

#### State Environmental Planning Policies

There are no State Environmental Planning Policies that require consideration in relation to this proposal.

### 7.2.2.2 SECTION 79C(1)(B) – ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACTS

*(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.*

The composting and recycling of organic wastes that have been traditionally disposed of in landfill is an important state government management strategy and an urgent matter for consideration by many government authorities.

The proposed development provides a viable alternative for the management of raw organic material. It will capture 'waste' from landfill and convert it into value-added products, thereby achieving sustainable waste resource recovery practices in a regional context. This outcome is consistent with the strategic direction of state and local government and will contribute to positive environmental, social and economic outcomes.

### 7.2.2.3 SECTION 79C(1)(C) – SUITABILITY OF THE SITE

*(c) the suitability of the site for the development*

The proposed development is ideally located in a rural area with low population density and adequate separation from sensitive receptors (dwellings). The nature of the operation is compatible with adjoining land uses and the zone objectives.

The site is ideally located close to a major road network, the New England Highway, which provides easy access to major transport routes for the sourcing and distributing of product.

The property upon which the proposed development is to be located is a large rural holding which enables the siting of the facility well back from the road frontage, property boundaries and watercourses.

The selected site is an area of sparse vegetation, minimising clearing requirements, and has an elevated aspect which enables the natural drainage flows of the site to be harnessed to facilitate the downslope collection and storage of contaminated run off.

### 7.2.2.4 SECTION 79C(1)(D) – SUBMISSIONS

*(d) any submissions made in accordance with this Act or the regulations*

Any public submissions submitted in respect of this application will be duly considered by Uralla Shire Council as part of the assessment process.

### 7.2.2.5 SECTION 79C(1)(E) – PUBLIC INTEREST

*(e) the public interest*

By implementing sustainable resource recovery technology, the proposed facility will minimise the amount of putrescible organic waste disposed of as landfill. The public interest will be well served by the contribution this proposed development will make to the sustainable management of waste. A well-operated composting facility with minimal environmental impact will be a valuable asset to the community.

## 8 CONCLUSION

This proponent is seeking integrated development approval for the construction and operation of a composting facility on Lot 223 DP 844146, Balala Road, Balala.

The proposed development is permissible with consent and is consistent with the relevant zone objectives of the ULEP. The proposed development is also compatible with existing land use on adjoining lands.



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## 8 CONCLUSION

This proponent is seeking integrated development approval for the construction and operation of a composting facility on Lot 223 DP 844146, Balala Road, Balala.

The proposal is consistent with the zone objectives of the ULEP, is compatible with existing land use on adjoining lands, and is an appropriate activity to be conducted on the property.



All design and operational aspects of the facility have been addressed in the SEE which demonstrates the capacity of the operation to comply with all relevant regulations and design requirements, and to operate with minimal impact to the environment and local amenity.

## 9 REFERENCES

Cage, J., 2003, Checklist for odor management at compost facilities, *Biocycle*, May:42-47

Goldstein, N., 2002, Getting to Know the Odour Compounds, *Biocycle*, July:42-44

# **Attachment A**

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## **Locality Analysis Plan**

Prepared by Hawkins Hook & Co.

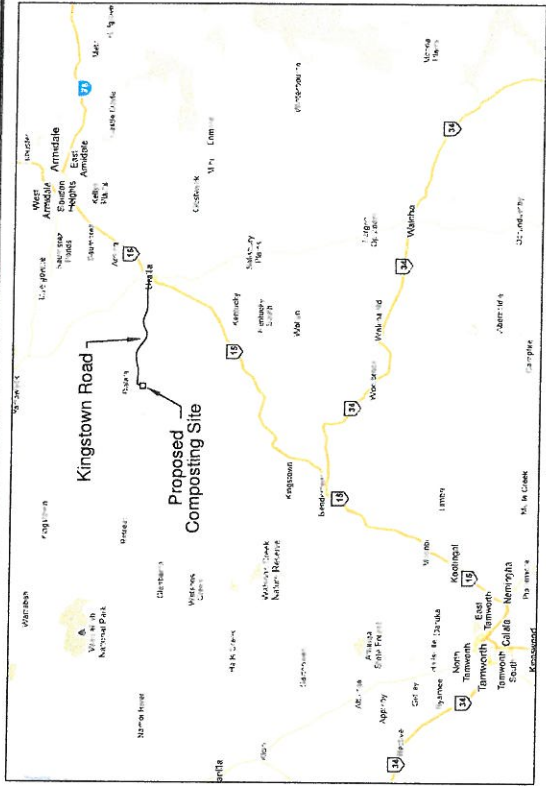
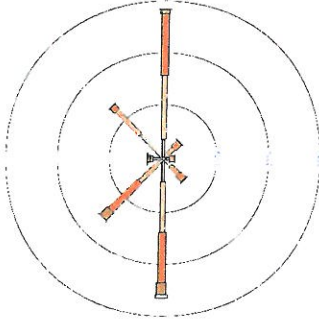
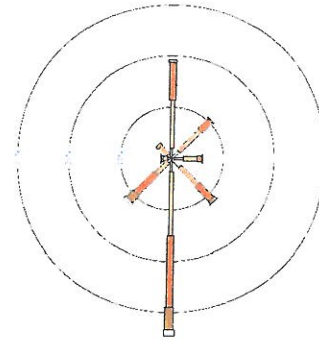


Diagram - Locality  
Not to Scale



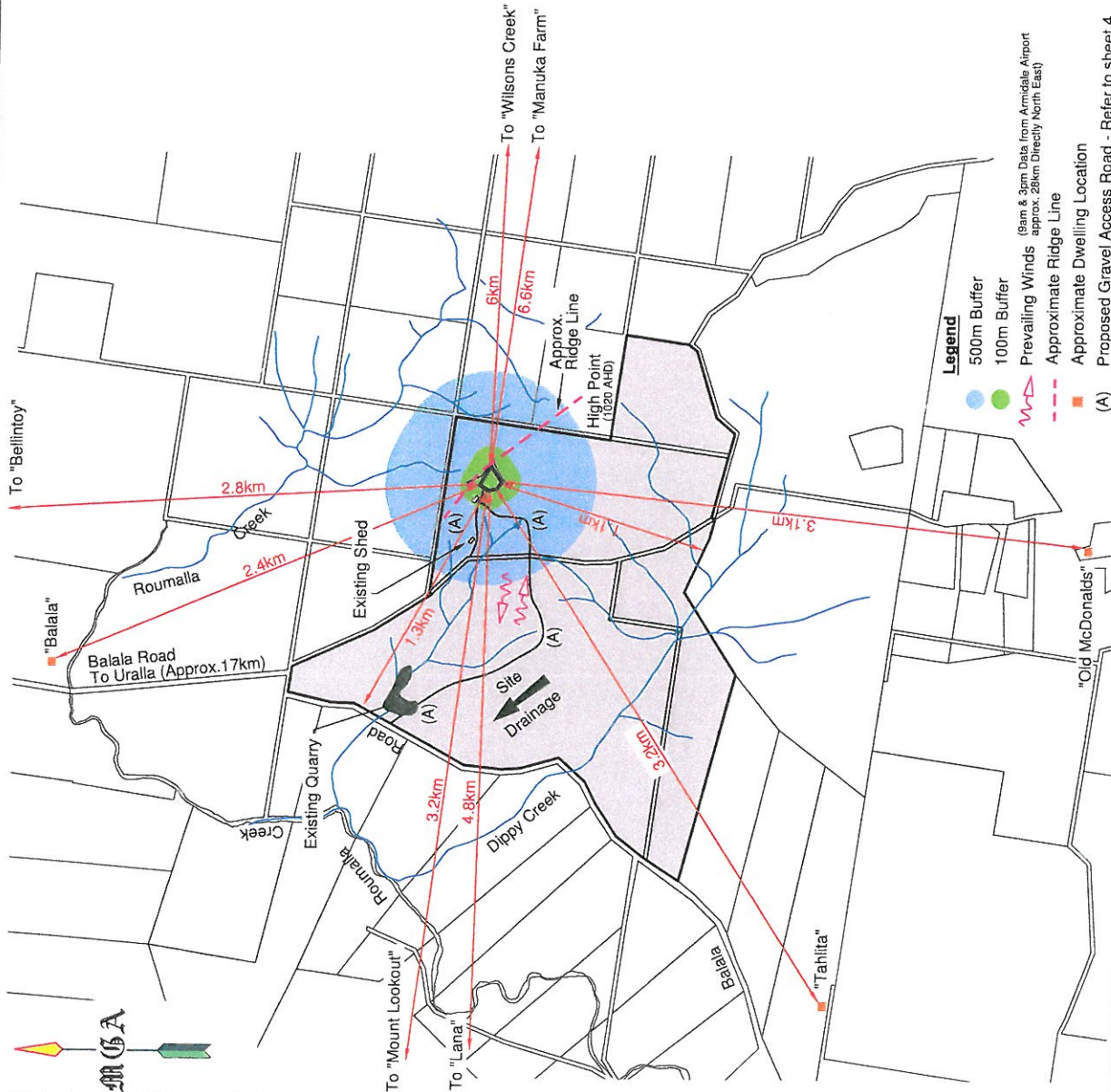
Wind Direction Versus Wind Speed  
9am (Armidale Airport)



Wind Direction Versus Wind Speed  
9am (Armidale Airport)



Wind Direction Versus Wind Speed Legend



- Legend**
- 500m Buffer
  - 100m Buffer
  - ~ Prevailing Winds (9am & 3pm Data from Armidale Airport approx. 28km Directly North East)
  - Approximate Ridge Line
  - Approximate Dwelling Location
  - (A) Proposed Gravel Access Road - Refer to sheet 4

**Client:**  
Mr Ron Jones  
11 Hercules Street  
Tamworth NSW

**Project:**  
Proposed Composting Facility  
Lot 223 in DP 844146  
Balala Road, Balala

**Scale Bar:**  
200 0 200 400 600 800 1000 1200  
SCALE OF METRES 1:25,000

Rev.	Date	Description
C	10/8/10	Addition of Site Plan of Sheet 4
B	10/9/10	Amendments & Additions
A	19/8/10	Original Issue

**Hawkins Hook & Co.**  
Consulting Surveyors, Planners & Engineers  
"Surveying the New England & Planning for our Future"  
27 Marsh Street Armidale NSW, 2350  
Ph: (02) 6772 3141 Fax: (02) 6771 3858  
e-mail: info@hawkinshook.com.au

Scale:	1:25,000	Date:	19/8/2010
Cad Scale:	x 1.0	Drawn:	LG
Backup Disk:	Server	Surveyed:	
Job No.:	20100712	Datum:	
Surveyors Ref:	Balala/119-122	Sheet Size:	A3
		SHT	2
		of	3
		Revision:	C



## **Attachment B**

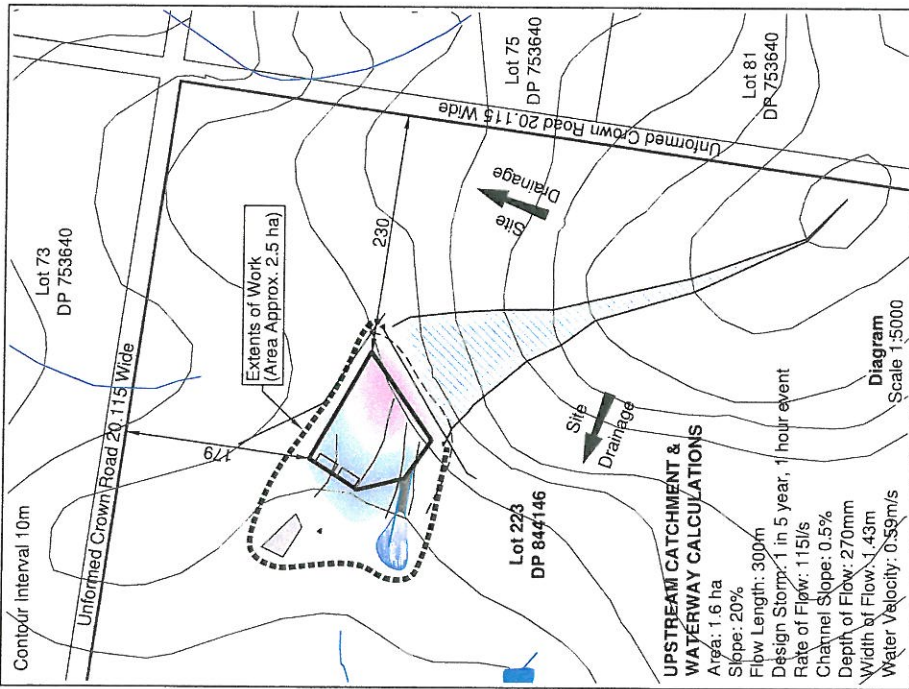
---

### **Contour Plan**

Prepared by Hawkins Hook & Co.



**DESIGN PAD VOLUMES**  
 5:1 Batter Slope - About 9,300m<sup>3</sup> Bank CUT to Compacted FILL\*  
 Maximum Fill Depth: 3.2m  
 Maximum Cut Depth: 3.1m  
 \* No Consideration for Compaction Factor

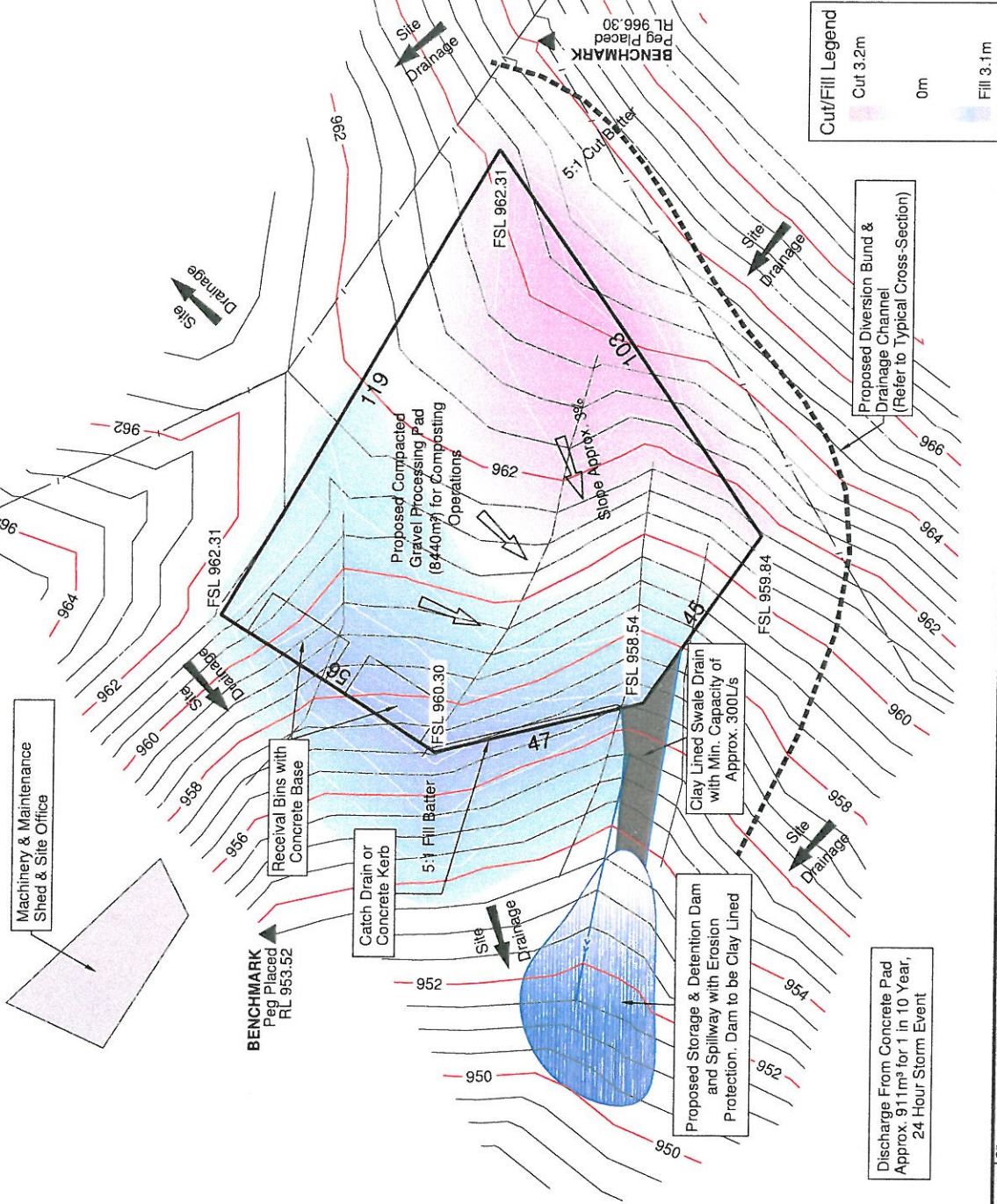


**UPSTREAM CATCHMENT & WATERWAY CALCULATIONS**

Area: 1.6 ha  
 Slope: 20%  
 Flow Length: 300m  
 Design Storm: 1 in 5 year, 1 hour event  
 Rate of Flow: 1.15l/s  
 Channel Slope: 0.5%  
 Depth of Flow: 270mm  
 Width of Flow: 1.43m  
 Water Velocity: 0.59m/s

Diagram Scale 1:5000

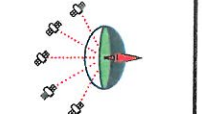
Existing Ground Contour Interval 0.5m  
 Cut/Fill Minor Contours Interval 0.25m, Major Contour Interval 1m



**Cut/Fill Legend**  
 Cut 3.2m  
 0m  
 Fill 3.1m

Scale:	1:1,000
Date:	19/8/2010
Drawn:	LG & RD
Backup Disk:	Server
Job No.:	20100712
Datum:	Surveyed: RH & LG
Approx. AHD	Sheet Size: A3
Surveyors Ref:	1 of 4
Revision:	C

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 e-mail: info@hawkinshook.com.au



Client: **Mr Ron Jones**  
 11 Hercules Street  
 Tamworth NSW

Scale Bar: 0 10 20 30 40 50  
 SCALE OF METRES 1:1000

Project:	Proposed Composting Facility		
Rev.	Date	Description	
C	10/9/10	Addition of Site Plan of Sheet 4	
B	10/9/10	Amendments & Additions	
A	19/8/10	Preliminary Issue	
Drawing Title		Contour Plan	

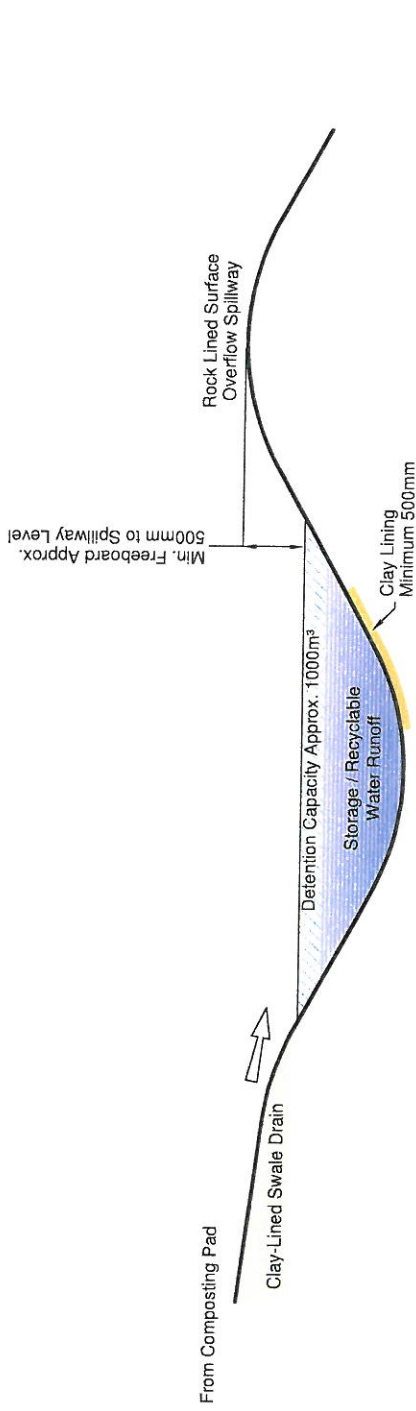
## **Attachment C**

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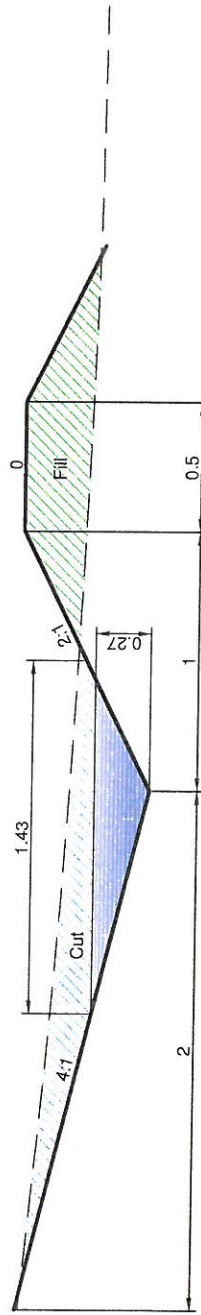
### **Typical Sections**

Prepared by Hawkins Hook & Co.

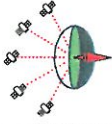




Typical Section Earth Bund with Storage Capacity of Approx. 1000m³ & Erosion Protection at Overflow  
Not to Scale



Typical Diversion Contour Bank & Drainage Channel (Nominal Gradient 0.5%)  
Not to Scale

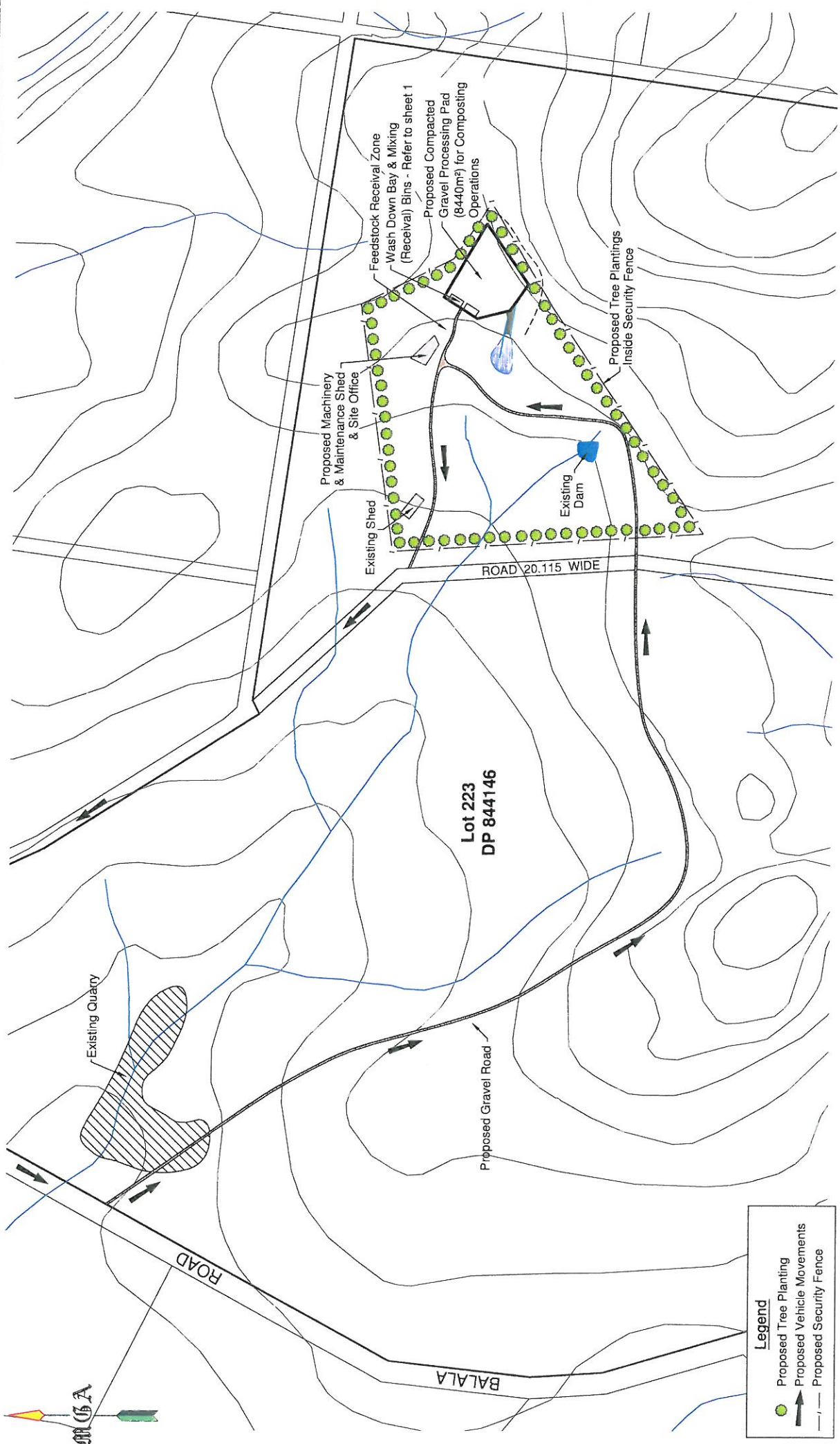
Rev.	Date	Description	<b>Project:</b> Proposed Composting Facility Lot 223 in DP 844146 Balala Road, Balala Drawing Title <b>Typical Sections</b>	<b>Client:</b> Mr Ron Jones 11 Hercules Street Tamworth NSW Scale Bar:	 <b>Hawkins Hook &amp; Co.</b> Consulting Surveyors, Planners & Engineers "Surveying the New England & Planning for our Future" 27 Marsh Street Armidale NSW, 2350 Ph: (02) 6772 3141 Fax: (02) 6771 3858 e-mail: info@hawkinshook.com.au	Scale: NTS Cad Scale: x 1.0 Backup Disk: Server Job No.: 20100712 Datum: Approx: AHD Surveyors Ref: Balala/119-122	Date: 19/8/2010 Drawn: LG & RD Surveyed: Sheet Size: A3 3 of 4 Revision: C
C	10/9/10	Addition of Site Plan on Sheet 4					
B	10/9/10	Amendments & Additions					
B	19/8/10	Preliminary Issue					

## **Attachment D**

---

### **Conceptual Layout of Proposed Composting Facility**

Prepared by Hawkins Hook & Co



**Legend**

- Proposed Tree Planting
- Proposed Vehicle Movements
- Proposed Security Fence

Scale:	1:5,000	Date:	19/8/2010
Cad Scale:	X 1.0	Drawn:	LG
Backup Disk:	Server	Surveyed:	
Job No.:	20100712	Datum:	
Surveyors Ref:	Balala/119-122	Sheet Size:	A3
		SHT	4 of 4
		Revision:	C

**Hawkins Hook & Co.**  
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**Client:**  
 Mr Ron Jones  
 11 Hercules Street  
 Tamworth NSW

**Scale Bar:**  
 50 0 50 100 150 200 250  
 SCALE OF METRES 1:5,000

**Project:**  
 Proposed Composting Facility  
 Lot 223 in DP 844146  
 Balala Road, Balala  
 Drawing Title  
 Conceptual Layout

Rev.	Date	Description
C	10/9/10	Addition of Site Plan of Sheet 4
B	10/9/10	Amendments & Additions
A	19/8/10	Original Issue



~ Commercial-in-Confidence ~

# Threatened Species Assessment

Balala Composting Pty Ltd, Balala, NSW

Report Number 23087.46614



Prepared for

by

**Balala Composting Pty Ltd**

***EnviroAg***  
Australia

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Telephone: (02) 5713 6128  
Free call: 1800 445 389  
ABN: 56 135 005 999

## Executive Summary

Balala Composting Pty Ltd has proposed to construct and operate a commercial composting facility at Lot 223 DP 844146, Balala Road, Balala NSW (the Site). A farm access track from existing infrastructure on the property to the composting site already exists. The proposal will require removal of approximately 27 trees on the Site. The Site consists of grazed, predominantly native pasture on routine agricultural land.

The Site was examined for flora and fauna to determine the presence of threatened species, whether it comprised part of an Endangered Ecological Community (EEC) or if the flora provides critical habitat for threatened fauna, as listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Threatened Species Conservation Act 1995* (TSC Act). The potential for the action to contribute to key threatening processes was also addressed.

A site inspection was conducted by Dr Steve Debus on 30<sup>th</sup> March 2011. The threatened ecological community *White Box, Yellow Box, Blakely's Red Gum Woodland* (TSC Act) was recorded on site.

The application of the '7-part test' under Section 5A of the *Environment Planning and Assessment Act 1979* (EP&A Act) (Appendix C and Appendix D) found that threatened flora and fauna species or ecological communities are unlikely to be significantly impacted upon by the proposed development. Application of the EPBC Act 'consideration of impacts on matters of national significance' (Appendix E) found that there is unlikely to be significant impact on matters under this Act. Therefore, the proposed development **does not require referral to the Commonwealth Minister for the Environment for consideration under the EPBC Act**. The implementation of mitigation measures at the Site, such as offset plantings of local tree and shrub species, would reduce the impacts of the proposal.

The assessment of significance under Section 5A of the NSW EP&A Act and the *State Environmental Planning Policy No 44 (SEPP 44) - Koala Habitat Protection* concluded that there is unlikely to be significant impact from the proposed development on the threatened Koala. The proposed building envelope on the Site does not fall in the category of 'core Koala habitat' under SEPP 44 and Secondary Habitat Class A in the NSW Koala Recovery Plan (Department of Environment and Climate Change NSW 2008). **Under SEPP 44 (Clause 9), a Plan of Management is not required.**

With regard to TSC Act listings, a Species Impact Statement (SIS) or an Environmental Impact Statement (EIS) are unlikely to be required under Division 2 of the TSC Act and Section 5A of the Environmental Planning and Assessment Act 1979 (EP&A Act). Under the EP&A Act, it is the responsibility of the consent or determining authority to form a view as to whether a proposed development or activity is likely to significantly affect a community or threatened species.

As the area to be cleared is remnant woodland (not post-1990 regrowth) and the ground layer is predominantly native, the proposal will require referral to the relevant CMA for assessment and approval to clear (if applicable). The CMA may require an offset to compensate for the 2.5 ha to be cleared.

#### 4. Conclusion and Recommendations

The flora and fauna survey and habitat assessment of the Site were conducted on 30<sup>th</sup> March 2011. Generally, an early autumn survey is suitable for detecting flora and fauna, as most species of fauna are active, and many annuals and grasses are still flowering or have fruits. Spring–summer migrant bird species are still present in the district. Additionally, for these species we have assessed the suitability of potential habitat.

One species of threatened fauna (listed under the TSC Act) was observed on the Site (Scarlet Robin). For threatened bats, one possible roost site was available within the development envelope (a tree hollow), and wooded, hollow-bearing foraging and roosting habitat outside the development envelope will not be affected by the proposal.

Koala food trees found on the Site showed no signs of occupation or use by Koalas. Therefore, the Site does not represent core Koala habitat under SEPP 44.

No species of threatened flora were recorded on the Site. However, many species of exotic flora were recorded on the Site. This included two (2) species of noxious weed. Mitigation measures should be undertaken to control the spread of this during development as per Section 3.3.

The threatened ecological community, Box-Gum Woodland occurs on the Subject Site. This ecological community is listed as endangered under the TSC Act and is known as White Box-Yellow Box-Blakely's Red Gum Woodland. It is also listed as critically endangered under the EPBC Act and is known as White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland. However, the woodland on site does not meet the criteria for Box-Gum Woodland under the EPBC Act.

The application of the '7-part test' under Section 5A of the EP&A Act 1979 (Appendix C and Appendix D) found that threatened species (TSC Act) and the threatened ecological community Box-Gum Woodland (TSC Act) are unlikely to be significantly impacted upon by the proposed development.

Application of the EPBC Act consideration of impacts on matters of national significance (Appendix E) found that there is unlikely to be significant impact on matters under this Act. Therefore, the proposed development **does not require referral to the Commonwealth Minister for the Environment.**

The assessment of the significance under Section 5A of the NSW EP&A Act and the *State Environmental Planning Policy No 44 (SEPP 44) - Koala Habitat Protection* concluded that there is unlikely to be significant impact from the proposed development on the threatened Koala. As the development envelope within the Site does not fall in the category of core koala habitat, **under SEPP 44, Clause 9 a 'Plan of Management' is not required for Koala habitat.**

With regard to TSC listing of the Box-Gum Woodland and threatened species, a Species Impact Statement (SIS) or Environmental Impact Statement (EIS) are unlikely to be required under Division 2 of the TSC Act and Section 5A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Under the EP&A Act, it is the responsibility of the consent or determining authority to form a view as to whether a proposed development or activity is likely to significantly affect a community or threatened species.

As the area to be cleared is remnant woodland (not post-1990 regrowth) and the ground layer is predominantly native, the proposal will require referral to the relevant CMA for assessment and approval to clear (if applicable). The CMA may require an offset to compensate for the 2.5 ha to be cleared.



Other recommendations to minimize direct and indirect impacts on native flora and fauna on the Site in areas disturbed during the development phase include:

- Offset planting(s) elsewhere on the property, of the same tree and shrub species as those cleared for the proposal, be established;
- Control of foxes (*Vulpes vulpes*) be implemented;
- Locally native species of flora should be used for landscaping to prevent further introduction and spread of exotic species;
- Logs, dead wood and felled trees removed from the development envelope be relocated as habitat off site, if not used as fenceposts or firewood on the property.

~ Commercial-in-Confidence ~

# Noise Assessment

Balala Composting Pty. Ltd., Balala, NSW

Report Number 23086.46554



*Prepared for*

*by* ARMIDALE

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Ltd.**

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PO Box 1775  
ARMIDALE NSW 2350  
Telephone: 1800 445 389  
ABN: 56 135 005 999

## 6. Conclusions

The predicted sound pressure levels emanating from the proposed development are expected to peak during the construction phase when the largest number of machinery items would be simultaneously in use. The predicted sound pressure level at the nearest key receptor ('Balala' located 2.4 km to the north north east) is 37.1 dB(A). This level of sound generation satisfies the criteria of the INP.

An additional factor of safety is intrinsically built into the prediction because a worst case scenario was followed, whereby factors which may otherwise further attenuate noise (such as ground surface reflection or the likely scenario where only a selection of the construction machinery would be operational at any one time) have been ignored.

There is limited potential for strong wind in the direction of 'Balala' to reduce the predicted attenuation of construction noise. The difference between predicted and allowable sound pressure levels is approximately 13 dB(A). It is unlikely that wind alone would reduce the noise attenuation to such a level that this buffer was eliminated, particularly as wind generates its own noise source. Despite this assumption, management may choose to delay construction activities during unfavourable meteorological conditions.

The assessment conducted for this report is based on the locations of key receptors identified by Beech (2010). If development on adjoining lots is permissible, it may be possible for a residence to be constructed at a distance of only several hundreds of metres from the composting works area. Development of this type and at such close proximity would negate any findings of the desktop assessment provided here.

Author:



Andrew Krause  
Principal Environmental Engineer

Date of issue: 30 Mar 2011

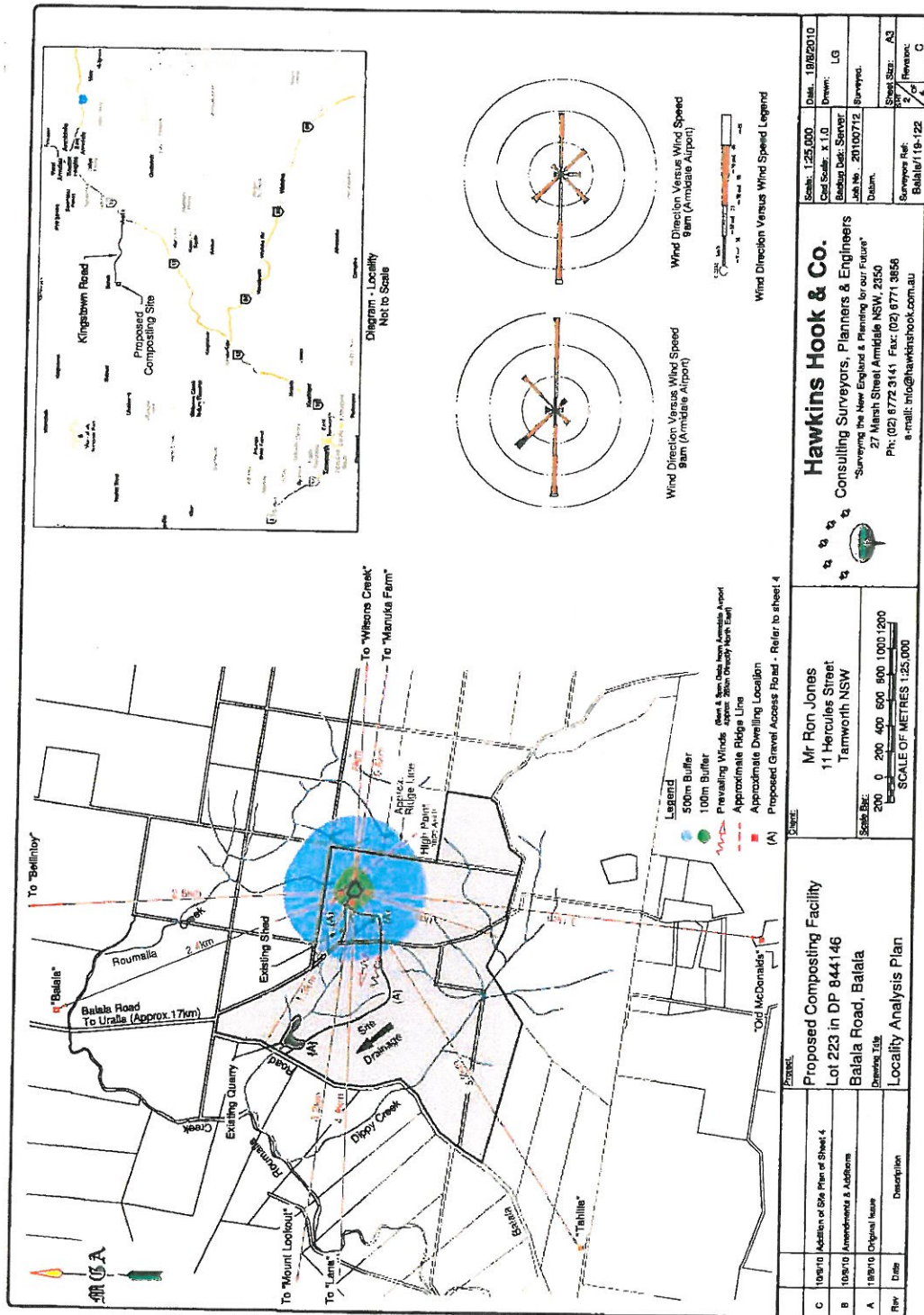
Checked & approved by:



John Hanrahan  
Special Projects Officer



8. Attachment 1



Scale:	1:25,000	Date:	19/02/2010
Grid Scale:	x 1.0	Drawn:	LG
Background Date:	Survey	Job No.:	20100712
Date:		Surveyed:	
Surveyor Ref.:		Sheet Size:	A3
Balala/18-122		of	4
		of	4
		of	4

**Hawkins Hook & Co.**  
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 e-mail: info@hawkinshook.com.au

Mr Ron Jones  
 11 Hercules Street  
 Tarmworth NSW

Scale Bar:  
 200 0 200 400 600 800 1000 1200  
 METRES  
 SCALE OF METRES 1:25,000

Proposed Composting Facility  
 Lot 223 in DP 844146  
 Balala Road, Balala  
 District Title  
 Locality Analysis Plan

Rev.	Date	Description
C	10/07/10	Addition of Site Plan to Sheet 4
B	10/07/10	Amendments & Additions
A	19/07/10	Original Issue

~ Commercial-in-Confidence ~

# Geotechnical Soils Assessment

## Balala Composting Facility

Report Number 22975.45907



*Prepared for*

*by*

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Ltd**

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Facsimile:  
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ARMIDALE NSW 2350  
Telephone: (02) 5713 6128  
Free call: 1800 445 389  
ABN: 56 135 005 999

## 8. Recommendations

### 8.1 Compost pad

The insitu materials meet the recommendations of the Composting Guidelines (DEC 2004) for the compost pad in regard to integrity and permeability.

Due to the insitu nature of the soils and the confining layer (aquatard) of weathered granite, groundwater contamination is considered unlikely assuming a suitably designed and constructed compost pad, and/or the interception of subsurface water occurs and is directed to the holding pond system. It is therefore recommended that a subsurface interception drain be considered for placement down slope of the compost pad to direct shallow groundwater to the holding pond.

To increase the durability of the pad and provide additional protection of compacted subsoils, it is recommended that gravel material is imported to improve the strength of at least the upper 0.15 m of the pad. Depending of the gravel imported, this may be incorporated into insitu materials, or placed as a homogenous imported layer.

Due to the insitu confining layer (at approximately 1.0 to 1.5 mbgl), a compacted liner of insitu materials is recommended to a total thickness of 0.3 m. A suitable grade will be placed on the compost pad to ensure controlled drainage and to prevent ponding of surface water.

The investigation determined that site soils are relatively homogenous, and are of sufficient quantity to complete the compost pad.

Figure 7 provides a summary of the recommended compost pad surface.

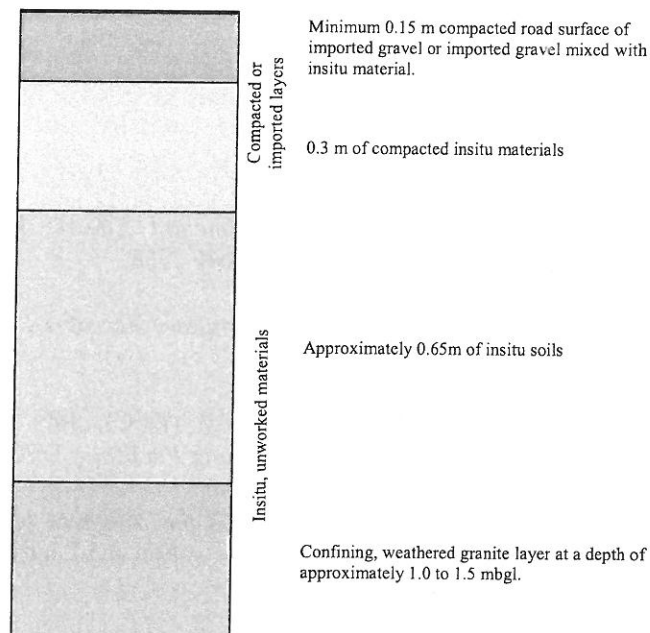


Figure 7. Recommended final surface for the compost pad

### 8.2 Holding pond

At a compaction rate of 98%, the insitu materials do not meet the Composting Guidelines for a permeability rate of  $1 \times 10^{-9}$  m/s. Several engineering options exist to design and construct a holding pond to satisfactorily meet the guidelines. These options (in no particular order) include:



- Undertake additional permeability tests at a compaction rate of 100% to determine if guideline permeability rates can be met with additional compactive effort during construction;
- Import clay material to line the holding pond;
- Use lime or cement stabilisation techniques to line the holding pond.
- Install a flexible membrane liner (such as a HDPE liner) to ensure minimal permeability rates;
- Install a runoff capture facility that directs collected runoff to above ground storage tanks.

It is recommended that additional information regarding the engineering solution is provided following the release of development approval, and prior to application for a construction certificate.

## 9. Limitations

The geotechnical model and recommendations presented in this report are based on a limited number of boreholes and test pits with limited site coverage. Variations in ground conditions can occur over relatively short distances and with depth.

A suitably qualified Geotechnical, Civil or Environmental Engineer should be engaged during construction to assess whether exposed conditions are consistent with any design assumptions.

Permeability tests were completed to Australian Standards using clean water. Salt concentrations in runoff may result in changes to the chemistry of the soils used to construct the holding pond. This may change the performance and integrity of these soils with time.

## 10. References

Beech, K., September 2010, *Statement of Environmental Effects; Proposed Composting Facility, Lot 223 in DP 844146, Balala Road, Balala NSW 2358.*

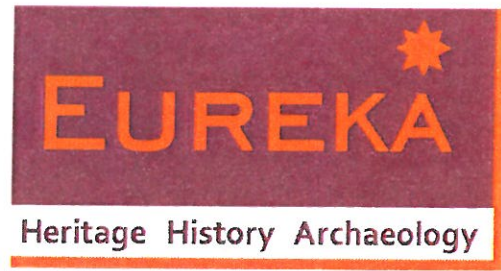
Brown R.E., Kryen J.P. and Brownlow J.W., 1990, *Manilla – Narrabri 1:250 000 Metallogenic Map*, Geological Survey of New South Wales, Sydney.

Department of Environment and Conservation NSW (DEC), July 2004, *Environmental Guidelines: Composting and Related Organics Processing Facilities*, DEC NSW, Sydney.

Hazelton, P.A. and Murphy, B.W., 1992, *What Do All the Numbers Mean? A Guide for the Interpretation of Soil Test Results*, Department of Conservation and Land Management, Sydney.

## 11. Appendices

Appendix A.	Borehole and test pit log sheets	A
Appendix B.	Laboratory results	B



Ron Jones  
Balala Composting Facility

**Aboriginal Cultural Heritage Assessment**  
Lot 223 in DP 844146  
Balala Road, Balala via Uralla, NSW

**July 2011**

Although the likelihood of sub-surface archaeological evidence is considered unlikely, in order to observe a precautionary approach to ground disturbance, and in response to the request from the Aboriginal knowledge holders present at site survey, monitoring of ground disturbing works is considered appropriate (see Recommendation 2).

## 8.2 ABORIGINAL STAKEHOLDER REVIEW COMMENTS

Copies of the draft report were provided to the registered Aboriginal Groups for review and comment. Review comments are included below for reference, and management recommendations have been formulated and finalized according to any review comments.

### 8.2.1 NYAKKA ABORIGINAL CULTURAL HERITAGE CORPORATION

A letter advising the results of site survey was received from the Nyakka Aboriginal Cultural Heritage Corporation, and a copy is included in **Appendix 2**.

On 25 June 2011, Eureka Heritage provided a copy of the draft report to Rhonda Kitchener, knowledge holder for the Nyakka ACHC, for review and comment. A response was received from Rhonda, on behalf of the Nyakka ACHC, by email on 13 July 2011. Rhonda advised that the report had been reviewed and the Executive Summary had been shared with the knowledge holders who supported the outcomes of the report. A copy of the email message is included in **Appendix 2**.

### 8.2.2 ARMIDALE LALC

A letter advising the results of site survey was received from the Armidale LALC, and a copy is included in **Appendix 2**.

On 25 June 2011, Eureka Heritage provided a copy of the draft report to the Armidale LALC for review and comment. A letter providing review comments and support for the recommendations of the assessment report was received on 27 July 2011. A copy of the letter is provided in **Appendix 2**.

## 8.3 MANAGEMENT RECOMMENDATIONS

These management recommendations are based on the results of site inspection where no surface evidence of cultural material was observed, and upon discussion with the registered Aboriginal knowledge holders following site inspection. There was consensus that it was unlikely that the study site would have provided resources suitable for Aboriginal use or occupation and that there was very low potential for sub-surface deposits. However, the potential for sub-surface archaeological evidence to exist can rarely be discounted entirely, and the following management recommendations take a precautionary approach, with respect to the request of the registered Aboriginal groups and in the event of the exposure of unexpected Aboriginal objects.

---

### RECOMMENDATION 1

---

Based on the results of the assessment report, and according to the due diligence process, there is no requirement to make application to the Office of Environment and Heritage for an Aboriginal Heritage Impact Permit (AHIP). However, the need to proceed with caution is acknowledged.

---

### RECOMMENDATION 2

---

While there was no Aboriginal cultural material evident at the surface, and the potential for sub-surface evidence is considered low, a precautionary approach is recommended such that ground disturbance should proceed with caution. Therefore, it is recommended that the following development is monitored by representatives of the registered Aboriginal Groups:

- Ground disturbance during excavation of the 'cut and fill' for the construction of the composting pad; and
- Excavation during construction of the swale drain and leachate dam.

**Figure 8.1** provides a clear plan of the areas subject to ground disturbance for development works and the areas recommended for monitoring during these works.

---

### RECOMMENDATION 3

---

All site personnel involved in development works should be briefed on the obligations related to the discovery of Aboriginal objects according to the National Parks and Wildlife Act 1974.

Section 90(1) of the National Parks and Wildlife Act, 1974 states that it is an offence to knowingly destroy, deface or damage, or cause or permit the destruction or defacement of or damage to, an object or Aboriginal place without first obtaining consent of the statutory authority.

If any Aboriginal objects are discovered during excavation activities of development within the study site, disturbance is to cease and the Environmental Protection and Regulation Group of the Office of Environment and Heritage (formerly known as DECCW) is to be informed in accordance with Section 91 of the National Parks and Wildlife Act 1974. Works should not recommence in the area until any requirements of the Office of Environment and Heritage have been met.







Appendix C  
to Everton Vale &  
Rocky River  
29 Oct 2010

Managers of Planning,  
Uralla Shire Council  
32 Salisbury St  
Uralla.

APPENDIX: C

URALLA SHIRE COUNCIL	
PA-17-2010	
01/10/6214	
WS	
email LC	

Dear M/s Cumming

Application No. PA-17-2010

Proposed Activity - Composting Facility

Applicant - Ron Jones

Address - Lot 223, DP84446 Balala Rd, Balala NSW

I wish to strongly oppose against this development for the following reasons:-

1. The odour from the dumps is now carried to my land which is adjacent to the development and is very strong with only two dump sites in use already. I note timber cleared for other sites 600metres from my front gate so the situation will become worse when fully operational.
2. Previously development applications have been approved on my land for residential dwellings and health and odour issues would arise from this type of development being so close.

x

I hope you will consider this submission with a favourable outcome for all concerned.

Yours sincerely  
G. J. Fuller.

Graham John Fuller

Uralla Shire Council  
32 Salisbury St  
Uralla NSW 2358

G & J McNally  
376 Balala Rd  
Uralla NSW 2358

10<sup>th</sup> May 2012

To whom this concerns,

We have previously contacted Uralla Shire Council about the extremely offensive odours and potential contamination of waterways from the dumping of chicken DAF sludge on the neighbouring property, Lot 223 Balala Rd, owned by Mr Ron Jones of Balala Composting Pty Ltd. It seems the council applied a band aid solution to the problem by temporarily stopping the dumping of Baiada's stinking abattoir waste for a few weeks until the stench subsided. It's now back to business as usual though. The dumping has resumed, the stench is back and we are right back where we started. I have spoken with the EPA about this and they only have control over the proposed composting facility that was applied for by Mr Ron Jones last year. They said that the control of the dumping and ploughing of this waste into the ground is entirely up to the council.

It is our understanding that DAF sludge is a by-product of meat chicken processing abattoirs' and is made up of offal, fats, blood and whatever harsh cleaning chemicals are used to clean the abattoir. This doesn't sound like the sort of product you would like in your creeks and streams. The location of lot 223 is upstream from Roumalla Creek with 2 adjoining water ways leading to Roumalla. One is a waterway from the quarry area of the property that runs under Balala Rd and through a wetland located on 290 Balala Rd, which then flows into Roumalla Creek. The other is via Dippy Creek. Do you have a chemical analysis of the waste from Baiada? If not, why not? Surely we need to know what it is that our stock is drinking and the wildlife and trees are being potentially contaminated with. This affects not only on our land and everyone downstream on Roumalla Creek but what sort of toxic waste land is lot 223 turning into?

We also would like to know why we were never asked to approve the dumping of this stenching waste so close to our property. The contamination issue aside, the rancid stench of this waste is nauseating. Particularly during summer we could not go outside and certainly not have visitors over, the stench would make you sick. Again, last night the air was filled with this violent stench. Why should we have to put up with this?

In October last year we agreed to a composting facility being built at the back of Lot 223 for the composting of this DAF waste. We didn't however agree, or be asked for that matter, to the dumping and ploughing of this stenching waste into the ground.

We ask that you to act immediately to rectify this problem, the dumping of this waste must be stopped, permanently. If the waste is going to be composted, fine but we do not agree to it being ploughed into the paddocks due to the reasons we have stated above. If nothing is done about it we will be forced to go to the media and tell them that Uralla Shire Council is allowing the dumping of toxic waste into farmland and potentially contaminating waterways.

Please advise what you will be doing about this as soon as possible,

Regards, Geoff and Jody McNally (phone 6778 7109)







# Uralla Shire Council

Address correspondence to:  
General Manager  
32 Salisbury Street  
URALLA NSW 2358

Phone: (02) 6778 6300  
Fax: (02) 6778 5073  
Email: [council@uralla.nsw.gov.au](mailto:council@uralla.nsw.gov.au)  
ABN 55 868 272 018

22<sup>nd</sup> May 2012

Mr G & Mrs J McNally  
376 Balala Road  
URALLA NSW 2358

Dear Sir/Madam,

**Re Your letter dated 10<sup>th</sup> May, 2012  
'Offensive Odour and Contamination of Waterway Issues'**

With regards to your letter I wish to advise that Council staff have undertaken an inspection on 21<sup>st</sup> May 2012 of Lot 223 DP 844146 Balala Road and found the following;

**Application of Dissolved Air Flotation (DAF) Sludge**

- DAF Sludge that had been deposited and turned into the ground in recent weeks in the area approximately 300 meters above the quarry. Odour levels in this vicinity were minimal – i.e. 1/10.
- DAF Sludge recently deposited on top of the ground and not yet turned in, located in a paddock on the southern side of the property had an odour level of 2/10 (i.e. not as strong as Blood and Bone/ Dynamic Lifter).
- The farm manager, Phil Singleton, advised that due to previous odour issues arising from spreading DAF earlier in the year (wet conditions warm weather), practices had now changed to ensure minimal odour emissions.
- DAF Sludge is not applied in wet conditions and is turned in within a day of spreading onto the ground. After turning in it has lime applied to assist in further odour control and anaerobic breakdown.

**Note :** DAF Sludge being plowed into the ground at Lot 223 comes from Baiada's processing plant. At their plant they continually wash and clean the chicken meat they're processing with water. All this waste water is collected and processed through a treatment plant where the proteins and fat are concentrated and skimmed off. The skimmed off product is the DAF

sludge. There are no harsh cleaning chemicals used in this process because the meat being washed and kept clean is for human consumption (process strictly monitored).

### **Potential to Contaminate Adjacent Waterways**

- Council staff have assessed the site and have been able to satisfy themselves that surface waters are adequately contained on the land known as Lot 223 DP 844146 Balala Road. It is also recognised that this situation may change under extreme rain events. When these events occur it is accepted that water containing some remnants of DAF sludge, migrating off the land will be diluted.
- Advice has been provided that DAF Sludge will not be applied in periods of wet weather to obviate DAF product migration off the land via surface water. This type of action will be incorporated into their farm management system.
- Council will organise for Bacteriological and Chemical water samples to be taken at strategic locations on adjacent watercourses to see if E Coli and Coliform levels are above the levels as recommended by the National Medical Health Research Council. Copies of these sample reports from the Government Analyst will be provided to all parties.

There is no licencing requirements from either Council or the Environment Protection Authority for the application of DAF sludge. Advice from the Environment Protection Authority is that this is due to the content of DAF sludge. Confirmation of this advice can be obtained by speaking to their officers on 02 67 737000.

In summary I wish to advise that Council staff will continue to monitor the odour issue to ensure that the application of DAF sludge is undertaken in an appropriate way, however if you experience periods of 'offensive' odour, please contact Council as soon as possible and I will arrange for Council staff to attend your property to ascertain the odour's strength. If an offensive odour is detected by Council staff, appropriate action will be instigated immediately.

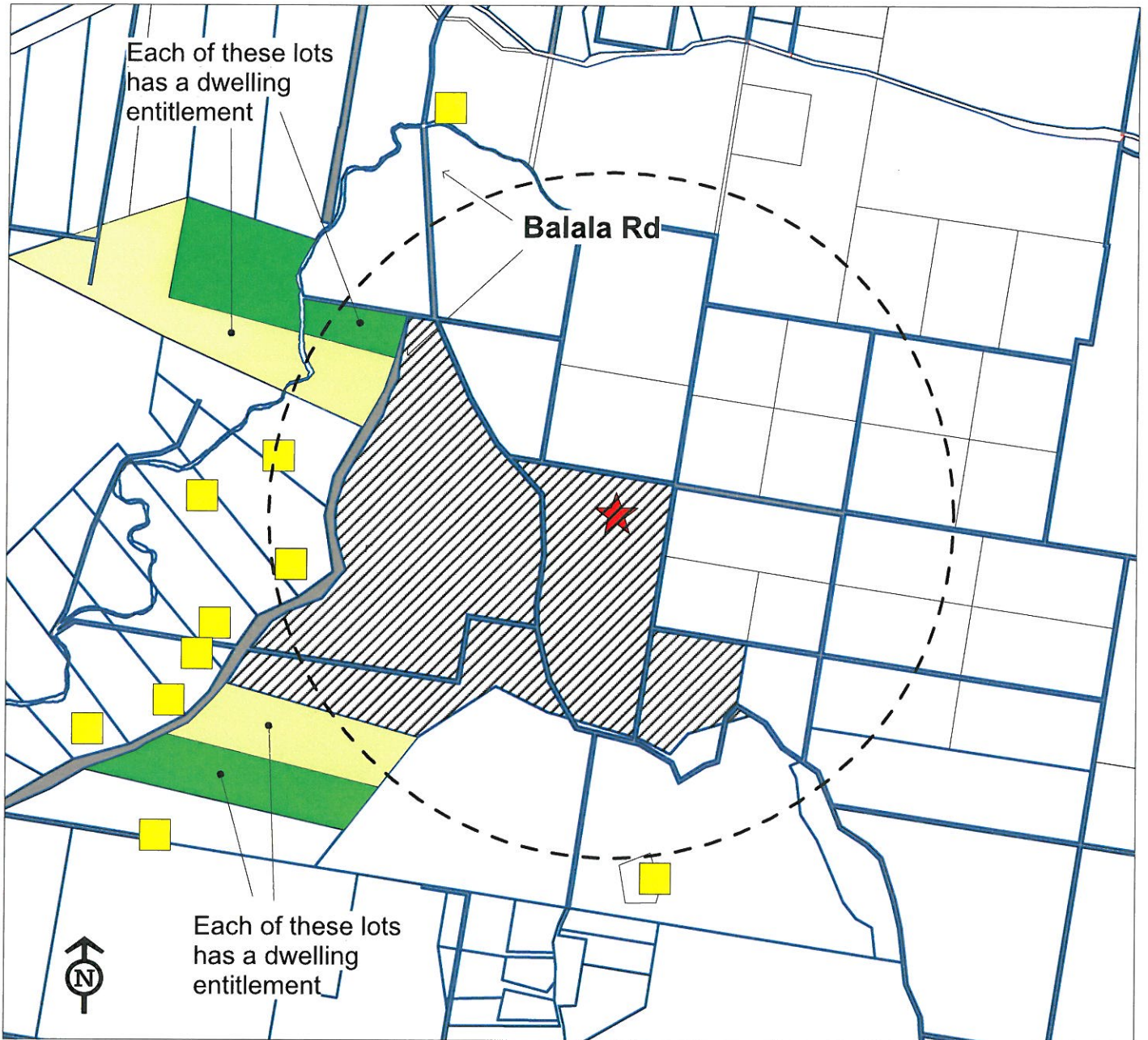
If you have any questions or wish to discuss this letter please call Warren Sellings (Manager of Health & Buildings) on 02 6778 6311 or email [wsellings@uralla.nsw.gov.au](mailto:wsellings@uralla.nsw.gov.au).

Yours sincerely



Thomas P. O'Connor  
**GENERAL MANAGER**

### Property Locations Adjoining Proposed Balala Composting Facility



★ Proposed Composting Facility

▨ Subject property

○ 2km radius

— Property boundaries

■ Dwellings

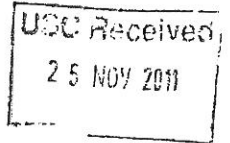
— Lot boundaries



Office of  
Environment  
& Heritage

Our Reference  
Contact  
Date

LIC10/945:DOC11/52476  
Michael Lewis (02) 6773 7000  
24 November 2011



Mr Tom O'Connor  
The General Manager  
Uralla Shire Council  
PO Box 106  
URALLA NSW 2358

Attention: Elizabeth Cumming

Dear Mr O'Connor

**Proposed Balala Composting Facility, review of additional information submitted following request to stop the planning clock**

The Environment Protection Authority, (EPA) refers to the development application and accompanying Statement of Environmental Effects (SEE) received on 11 October 2010 for a proposed composting facility to be located at Lot 223/ DP844146, Balala Rd, Balala. On the 19 October 2010 a site meeting was held with the proponent, (Mr Ron Jones) and Council Officers, during this meeting it was identified that additional information / clarification was required to be submitted by the proponent. The EPA confirmed the requested information / clarification required in a letter to Council on the 1 November 2010 a copy of which was also provided to the proponent.

The proponent has not supplied all the information / clarification requested by the EPA in its letter and associated attachments dated 1 November 2010. Four Assessments were received by the EPA on the 19 August 2011 from Council covering, Noise, Aboriginal Cultural Heritage, Geotechnical and Threatened Species. The following additional information was also requested but no received.;

**Hatchery Waste** - The proponent's Statement of Environmental Effects identified hatchery waste as one of the main components or proposed fed stock and the possible latter inclusion of tannery waste. As previously advised these wastes cannot be applied to land without a resource recovery exemption even in a composted form. As no general or specific resource recovery exemption has been issued by EPA at the present time these products cannot be received. EPA general terms of approval will only allow waste streams that are either exempt under POEO (Waste) Regulation or have a valid resource recovery exemption.

**Odour impacts** – As mentioned the EPA does not require detailed odour modelling for the proposal due to the current distance to the nearest receptor. However the proponent should still confirm that additional residences may not be constructed on adjoining allotments and as a result reduce the current buffer zone distance to sensitive receptors. No additional information was supplied to the EPA on appropriate buffer distances for the proposed activity with frequency of wind direction to support the conclusion that there will be no offensive odour impacts.

*The regulatory responsibilities of the Office of Environment and Heritage are now carried out by the Environment Protection Authority*

PO Box 494 Armidale NSW 2350  
85 Faulkner St Armidale NSW 2350  
Tel: (02) 6773 7000 Fax: (02) 6772 2336  
ABN 30 841 387 271  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)



The EPA therefore requests that the planning clock is still stopped pending the proponent supplying the additional information originally requested in its letter dated 1 November 2010.

If you wish to discuss this matter, please contact Mr Michael Lewis in the Armidale Office on 02 6773 7000.

Yours sincerely



**ROBERT O'HERN**  
**Head Regional Operations – Armidale**  
**Environment Protection Authority**

Cc: Mr Ron Jones, 11 Hercules St, TAMWORTH NSW 2340

Appendix F  
#1 PVP 00065



Catchment Management Authorities  
New South Wales

# BORDER RIVERS/GWYDIR Catchment Management Authority

## Clearing/Continuing Use PROPERTY VEGETATION PLAN *Native Vegetation Act 2003*

**COPY**

'Lindabar'  
Balala Road  
URALLA NSW 2358

This Property Vegetation Plan applies to the land described in Schedule 1, as shown on Map 1 in Schedule 4 of this agreement.

The Landholder is authorised to undertake the activities set out in Schedule 2 and agrees to carry out the management actions and management action details set out in Schedule 2. The Landholder agrees to comply with the requirements of Schedule 3.

**Notes:**

1. The Director-General of Department of Premier and Cabinet (or delegate) will notify the Registrar-General once all landholders and parties with a prescribed interest have consented to the registration of this PVP. Once notified by the Director-General, the Registrar-General is required to register this PVP. This PVP will then be binding on all current and future landholders.
2. This Plan does not exempt the landholder from any Council clearing consent requirements.
3. In order to carry out the works under this PVP, the Landholder may be required to obtain other approvals from other government agencies.

**Ronald Jones**

Name of the Landholder

*Ronald Jones*  
Signature

26. 8. 12  
Date

**Paul Ronald Jones**

Name of the Landholder

*Paul Jones*  
Signature

26. 8. 12  
Date

**ANNABEL SIDES**

**BUSINESS MANAGER**

**ACTING GENERAL MANAGER**  
**Paul Hutchings**

General Manager of the Border Rivers/Gwydir Catchment Management Authority, Delegate of the Minister administering the *Native Vegetation Act 2003*

*Annabel Sides*  
Signature

14. 9. 12  
Date

**SCHEDULE ONE — DESCRIPTION OF LAND TO WHICH THIS PVP APPLIES**

Lot	DP	LGA	Parish	County
223	844146	URALLA	BALALA	HARDINGE

17003

   
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**SCHEDULE TWO — AUTHORISED ACTIVITIES AND MANAGEMENT ACTIONS**

**AUTHORISED CLEARING (NOT INVOLVING INVASIVE NATIVE SCRUB AND/OR THINNING)**

Map Number (as per Schedule 4)	Map Unit	Clearing Type Authorised on Map Unit	Details of Authorised Clearing Type
Map 1	4a	Clearing	Broadscale Clearing

**MANAGEMENT ACTIONS FOR AUTHORISED CLEARING (NOT INVOLVING INVASIVE NATIVE SCRUB AND/OR THINNING)**

1. If clearing occurs in the Map Units, as identified in Authorised Clearing table, then the management actions and management action details described below must be undertaken in the specified Map Unit, as identified in Schedule 4.
2. The management actions and management action details are to be continued for, or completed within, the duration specified in the column "Duration of Management Action".

Map Number (as per Schedule 4)	Map Unit	Management Action	Duration of Management Action	Management Action Details
Map 1	4a	Clearing	15 Years	The landholder may clear native vegetation in Map unit 4a until 15 years from the commencement of this plan.

**REQUIRED OFFSETS FOR AUTHORISED CLEARING (NOT INVOLVING INVASIVE NATIVE SCRUB AND/OR THINNING)**

Map Number (as per Schedule 4)	Map Unit	Offset on Map Unit	Details of Authorised Offset Type
Map 1	4b	Offset	Offset for authorised clearing in Map unit 4a

*[Signature]* .....  
 Initials

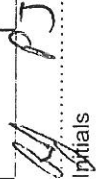
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### Management actions for offsets

1. If clearing occurs in the Map Units, as identified in Authorised Clearing table, then the management actions and management action details described below must be undertaken in the specified Map Unit, as identified in Schedule 4.
2. The management action and management action details are to be continued for, or completed within, the duration specified in the column "Duration of Management Action".

Map Number (as per Schedule 4)	Map Unit	Management Action	Duration of Management Action	Management Action Details
Map 2	10b	Clearing Not Allowed	Perpetuity	Details: The clearing of native vegetation, whether remnant or regrowth, is not permitted in this zone at any time. Routine Agricultural Management Activities are not permitted in this zone at any time, except for minimal disturbance required in the undertaking of the following activities that are listed under Section 11, Part 2 of the Native Vegetation Act 2003 or in Part 4 of the Native Vegetation Regulation 2005:- Pt 2(b) & (c), Pt 4 (13 & 17) – control of noxious & feral weeds and noxious & pest animals; Pt 2 (h), Pt 4 (21) – maintenance of public utilities; Pt 2 (i) – removal of imminent risk of personal injury or damage to property & Pt 4 (g) traditional Aboriginal cultural activities (the PVP agreement may limit the extent of (g)).
Map 2	10b	Do not burn	Perpetuity	All reasonable actions to exclude fire must be taken - Exclude fire from known roost trees/ or old hollow bearing trees (hollows >2cm) and standing dead timber. If possible. All reasonable actions to exclude fire must be taken
Map 2	10b	Maintain or re-introduce natural flow regimes to wetlands	Perpetuity	The landholder is to prevent harm from feral herbivores from affecting greater than 5% of the groundcover in Map unit 10b at all times after the commencement of this plan.
Map 2	10b	Retention of all dead timber (standing and fallen)	Perpetuity	The landholder is not to remove any standing or fallen dead timber from map unit 10b at any time. Retention of all dead timber (standing and fallen) - potential day roosts, Retain coarse woody debris.
Map 2	10b	Strategic stock grazing	Perpetuity	The landholder is to ensure that stocking in Map unit 10b does not exceed four, four week periods in any year in order to maintain groundcover at minimum 70%. Reduced grazing to allow for regeneration of Eucalypt spp. as future roost trees and maintain a diverse understory as habitat for prey.
Map 2	10b	Supplementary planting	Perpetuity	The landholder is to plant and maintain local native shrubs and local trees at a density of 30 plants per hectare in Map unit 10b where required.
Map 2	10b	Weed control (non-statutory exotic pest species)	Perpetuity	The landholder is not to use herbicides within Map unit 10b except to spot-spray non-native weed species.
Map 2	10b	Retention of rocks	Perpetuity	The landowner is not to remove or disturb any rocks or rock features in Map unit 10b.
Map 2	10b	Exclude Fertilisers	Perpetuity	The landowner is not to use fertilisers in Map unit 10b.


  
 Initials .....

Map Number (as per Schedule 4)	Map Unit	Management Action	Duration of Management Action	Management Action Details
Map 2	10b	Feral and/or over-abundant native herbivore control	Perpetuity	The landholder is to prevent harm from feral herbivores from affecting greater than 5% of the groundcover in Map unit 10b at all times after the commencement of this plan.
Map 2	10b	Retain regrowth	Perpetuity	The landholder is not to remove any regrowth from Map unit 10b at any time.
Map 3	12b	Erosion control	Perpetuity	The landholder is to control soil erosion and intercept sediment caused by any water erosion in Map unit 12b.

#### MANAGEMENT ACTIONS FOR CONTINUING USE

1. The management actions and management action details are to be continued for, or completed within, the duration specified in the column "Duration of Management Action".
2. The management actions and management action details set out below must be undertaken in the specified map unit as identified in Schedule 4.

Map Number (as per Schedule 4)	Map Unit	Management Action	Duration of Management Action	Management Action Details
Map 1	4c	Management of regrowth	15 years	<p>a) The continuation of Regrowth control is permitted in map unit 4c.</p> <p>b) The landholder is to only remove native species that have regrown after clearing in Map unit 4c.</p> <p>c) The landholder is to ensure that only regrowth is removed and all remnant vegetation is retained including natural regeneration in Map unit 4c.</p> <p>d) The landholder is to ensure that the groundcover vegetation is allowed to rehabilitate with native species in Map unit 4c.</p> <p>e) The landholder is to ensure that clearing does not result in the introduction of any non-native vegetation, and any existing non-native vegetation is managed to encourage the growth of native groundcover in Map unit 4c.</p> <p>f) Regrowth in this document has the same meaning as Regrowth within Native Vegetation Act 2003 definitions.</p>

Initials: *AA* *PJ*

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## SCHEDULE THREE - STANDARD CONDITIONS

### Commencement

1. This PVP will commence from the date at which it is signed by the Minister administering the *Native Vegetation Act 2003* (or delegate).

### Words and phrases used

2. In this Schedule:

"CMA" means the Catchment Management Authority that is a party to this property vegetation plan ("PVP");

"Landholder" means the landholder who is a party to this PVP and once this PVP is registered all future landholders;

"the works under this PVP" means the clearing, the management actions, the mitigating actions and all other works that the Landholder is authorised or required to take under this PVP;

"the Land" means the land to which this PVP applies;

"incentive payments" means incentive payments to be made under this PVP by the CMA to the Landholder, in accordance with Schedule 2 of this PVP; and

"OEH" means the Office of Environment and Heritage within the Department of Premier and Cabinet and includes its successor departments or agencies.

### Monitoring and auditing

3. The carrying out of any works under this PVP may be subject to auditing by officers of the CMA or OEH who are authorised officers under the *Native Vegetation Act 2003*, as set out in sections 34 and 35.
4. Subject to reasonable notice, the Landholder will allow authorised officers of the CMA or OEH access to the Land and allow those officers to do all things reasonably necessary for the purpose of monitoring or auditing compliance with this PVP.
5. The Landholder agrees to retain receipts and records of all expenditure associated with incentive payments for a period of three years from the date of final expenditure. The Landholder agrees to provide such receipts and records to authorised officers of the CMA or OEH, if requested as part of any monitoring or audit carried out by the CMA or OEH.
6. Clauses 3, 4 and 5 do not affect the powers of authorised officers of the CMA, OEH or other government agencies to carry out investigations under the *Native Vegetation Act 2003*.

### Other funding arrangements

7. The Landholder warrants that prior to the approval of this PVP, the Landholder has notified the CMA of any other funding arrangements entered into for the purpose of carrying out any works included in this PVP.

### Registration of PVP on Title

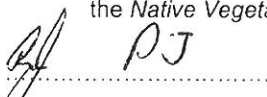
8. For the purpose of sections 31(1) and 31(2) of the *Native Vegetation Act 2003*, the Landholder consents to the registration of this PVP in accordance with section 31 of the *Native Vegetation Act 2003*.

### Incentive payments

9. Payment of the contract amount will be made in accordance with Attachment 1 subject to the completion of relevant activities/management actions to the CMA's satisfaction.

### Dispute resolution

10. The parties agree to attempt to resolve any dispute in relation to this PVP by negotiation in the first instance. Such negotiation may involve agreeing on a variation to the PVP. However, this clause does not apply to a dispute relating to a possible breach of the *Native Vegetation Act 2003*.
11. Where appropriate, if negotiations are not successful, the CMA agrees to provide a written notice to the Landholder setting out the nature of any contravention and requesting the Landholder to take the steps specified in that notice, in the time specified in that notice, to rectify that contravention. This clause does not apply to a possible breach of the *Native Vegetation Act 2003*.

  
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Initials



12. The Landholder agrees to comply with that notice in the time specified in the notice. Failure to comply with that notice is a breach of this plan. If the Landholder does not comply with the notice, the Minister (or delegate) may consider terminating this plan, in accordance with the procedure set out in section 30 of the *Native Vegetation Act 2003*. The CMA or OEH may also take other action under that Act.
13. If this property vegetation plan is terminated, the Landholder agrees to pay back to the CMA within 28 days of the date of termination:
  - (i) for any management actions not commenced at the date of termination, all incentive payments received under this plan; and
  - (ii) for any management actions partially completed at the date of termination, an amount of incentive payments received under this plan which has been approved by the CMA

The landholder also agrees to provide access to the property to officers of the CMA and OEH and also to provide access for those officers to receipts and records of expenditure related to such management actions.

14. The obligation of the landholder under clause 13 to pay back certain incentive funds to the CMA continues after the end of this agreement.

Note: The procedure for varying or terminating a PVP is set out in section 30 of the *Native Vegetation Act 2003* and clause 11 of the *Native Vegetation Regulation 2005*.

### **Subdivision**

15. The Landholder agrees to notify the CMA of any proposal to subdivide the Land.
16. The Landholder agrees to submit to the CMA an application to vary this PVP to divide it into separate PVPs relating to the Land as subdivided in the same or similar terms to this PVP, if so requested by the CMA.

### **Apportionment of risk/indemnity**

17. The parties agree to apportion risk as follows:
  - (i) The CMA accepts the risk for the actions of CMA staff in entering the Land and carrying out functions associated with this PVP and for the actions of other visitors to the Land as organised by the CMA.
  - (ii) All other risks associated with this PVP and the works under this PVP rest with the Landholder.

### **Goods and services tax**

18. Unless otherwise stated, any incentive payments made by the CMA are exclusive of goods and services tax.
19. Prior to receiving any payment, the Landholder agrees to provide to the CMA a valid Australian Business Number or clear evidence as to why no Australian Business Number is required.

### **Disclosure of Information**

20. Subject to clause 21, personal information contained in this PVP will be treated in accordance with the *Privacy and Personal Information Protection Act 1998*, under which you have rights of access and correction.
21. Information contained in this PVP may be disclosed:
  - (i) in the case of incentive PVPs generally, to bona fide prospective purchasers of the land to which this PVP applies
  - (ii) In the case of a PVP that allows broadscale clearing or that specifies a date for the definition of "regrowth", certain information from the PVP will be included on the register of PVPs and development consents, which will be publicly available on the Internet and available for inspection at the office of the CMA.
  - (iii) in the case of incentive PVPs valued at \$150,000 or more, on the government contracts register on the NSW Government Tenders website except for any personal information or other content the CMA determines is subject to an overriding public interest against disclosure.
  - (iv) to OEH for compliance and statistical purposes.
  - (v) in circumstances where disclosure is otherwise required or authorised by law, including the Government Information (Public Access) Act 2009.

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## SCHEDULE FOUR — MAPS

- Map 1 PVP Area and Activities authorised by this PVP.
- Map 2 Vegetation zones associated with activities authorised by this PVP.
- Map 3 Land and soil capability (LSC) zones associated with activities authorised by this PVP.

All maps must be printed for each PVP, unless it is not applicable to this PVP

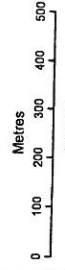
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Request No: 16402  
 Name: Ronald Jones,  
 Paul Ronald Jones  
 Property: Lindbar  
 Balaia Road  
 URALLA

**Legend**

- Property
- Clearing
- Offset
- Continuing Use
- Drainage Line



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Prepared by: Sheridan Lawson  
 Date: 20/08/2012

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340000 341000 342000

6610000 6600000 6590000



## Map 2 Vegetation Zones

Request No: 16402  
 Name: Ronald Jones,  
 Paul Ronald Jones  
 Property: Balala  
 Balala Road  
 URALLA



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Prepared by: Sheridan Lawson  
 Date: 10/08/2012






P.T. A

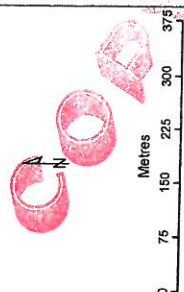


**Map 2a**  
**Vegetation Zones**

Request No: 16402  
 Name: Ronald Jones,  
 Paul Ronald Jones  
 Property: Balala  
 Balala Road  
 URALLA

**Legend**

-  Property
-  Vegetation Zones
-  Drainage Line



1:7,000  
1 centimetre = 70.07125 metres

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Date of Imagery: 06/08/2009

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 Some published topographic maps do not use the map datum AGD84.  
 The map datum used in this map is the map datum AGD84.  
 A projected AGD84 topographic map.

Prepared by: Sheridan Lawson  
 Date: 10/08/2012



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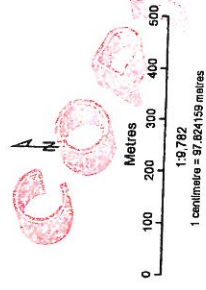
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Request No: 16402  
 Name: Ronald Jones,  
 Paul Ronald Jones  
 Property: Balala  
 Balala Road  
 URALLA



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Prepared by: Sheridan Lawson  
 Date: 09/08/2012





# Development Assessment Report

**DA Number:** 17/2010  
**Location:** Balala Road, Balala  
**Development Description:** Composting Facility  
**Title Details:** Lot 223 DP 844146

Attachment: G

## Proposal Overview

The composting facility will consist of the following components:

1. Processing area – windrow composting pad, feedstock receival zone, mixing bays and vehicle washdown bay.
2. leachate storage dam
3. infrastructure – machinery, vehicle and maintenance shed, site administration office.
4. Internal gravel access road.

The operation will occupy an area of approximately 2.5 ha.

The operation has been designed in accordance with the Minimum Design Requirements of the Department of Environment and Conservation (NSW), *Environmental Guidelines: Composting and Related Organics Processing Facilities, July 2004*.

The property has an area of 373 ha.

The composting process consists of a mixture of raw organic material as feedstock for windrows.

The EPA classifies organic waste as either Category 1, 2 or 3. Essentially the distinction between the different classifications is based on nutrient content, with Category 1 waste having the lowest nutrient content (ie low C:N ration) and therefore being the least putrescible, slowest to degrade and the least hazardous, and Category 3 having the highest nutrient content therefore being the most putrescible and quickest to degrade. The proposed facility will receive waste from all three categories as outlines in Table below.

Poultry manure and green waste will be standard components of all compost piles as they will be used to form a starter mix to which other feedstock will be added. Initially, the facility will be adding DAF and then hatchery waste to the starter mix but the expectation is that in the future, the facility will also be able to source tannery waste and grease trap waste for mixing with the starter material.

It is estimated that the proposed facility will receive over 5,000 tonnes of raw organic material each year but will process just under 5,000 tonne of organic material. The distinction between the amount received and the amount processed is based on the loss of one third of raw material by weight during the composting period.

Raw Organic Material	Quantity Tonnes per annum (approx)	Quantity Tonnes per week (approx)	Source	Waste Category Level *
Hatchery waste  (egg shells, egg yolks, egg whites, poultry feather, bones, carcasses, chicken embryos)	1872	36	Baiada Poultry, Tamworth NSW	3

Poultry manure	520	10	Baiada Poultry, Tamworth NSW	2
Untreated Green Waste (leaves, grass clippings, twigs, loppings, branches, straw etc)	5096	98	Uralla Shire Council Waste Depot and private contractors	1
TOTAL Materials to be RECEIVED	7488 tonnes per annum (This amount consists of 2392 tonnes of putrescibles organic waste and 5096 tonnes of non-putrescible organic waste)			
TOTAL Materials to be PROCESSED	4992 tonnes per annum based on a loss of one third of raw material by weight during the composting processed			

\*corresponds to the Waste Classification Hierachy outlined in the EIS Practice Guidelines: Composting and related Facilities (DUAP, 1996).

Raw Organic Material	Quantity Tonnes per annum (approx)	Quantity Tonnes per week (approx)	Source	Waste Category Level *
Tannery Waste - Tannery Fleshings (consists of membranes and flesh removed from animal hides during the tanning process) - Tannery Mud (settled sludge produced during the treatment of tannery wastewater)	To be confirmed 3			To be confirmed
Grease Trap Waste	To be confirmed		Licensed liquid waste removal contractors	3

After receipt of feedstock into the concrete Mixing Bays, the various materials are mixed together to achieve the correct proportion of carbon to nitrogen required for optimal composting – the ideal ratio being 25-30 (carbon) : 1 (nitrogen). A wood chipper will be used to reduce oversized material (generally green waste such as large branches etc).

Bulking agents high in carbon will be added to enhance porosity and absorb excess moisture. Bulking agents are typically coarse, low density inert blending materials such as straw, sawdust or hay that help produce and open structure in the mixture.



Poultry manure and green waste will form the basis of each composting pile. The two materials will be mixed together in a ratio of 4 parts green waste to 1 part poultry manure to form a base or starter material to which various feedstocks can be added.

The starter base is sprayed with EWS compost formula. The EWS formula contains microflora that act to significantly reduce odours, as well as act as a catalyst for the composting process. This mix is then formed into a base 0.3m to 0.6m deep (depending on the amount of free liquid in the raw material).

The other organic material (hatchery waste, tannery waste or grease trap waste), as it becomes available, is placed onto the prepared base in a ratio of 1 part raw material to 4 parts base material (by volume). The materials are then mixed together with a front end loader to ensure a homogenous blend with an open structure sufficient to facilitate complete aeration of the composting pile. Bulking agents will be added at this stage if necessary.

It should be noted that feedstock other than green waste and poultry manure (which are used to prepare the starter base and therefore will be present in all piles) will not be co-mingled. Each of the raw material will be mixed with the prepared base separately for quality control purposes ie, hatchery waste (Material A) will be mixed with the base material; tannery waste (Material B) will be mixed with the base material; grease trap waste (Material C) will be mixed with the base material; however, materials A, B and C will never be mixed together as part of the composting process.

All preparation and mixing takes place within the concrete mixing bays, with the Operations Manager ensuring that sufficient poultry manure and green waste is available and mixed prior to the material arriving on site so that blending and processing can occur promptly.

Once mixed, the raw material blend is moved onto the Composting Pad where it is formed into elongated piles (windrows) mounded approximately 4-5m high and 6-7m wide. The length of the piles will be oriented north-south across the Pad to maximise sunlight and air flow, and to ensure free drainage of any leachate away from the windrow and into the leachate collection and storage dam.

The length of each windrow will vary depending upon the volume of material received and the length of the Processing Pad. More material will be mixed and added to the pile as it is received.

The aeration pipes are placed on the Composting Pad prior to the placement of the blended material. The blended material is then laid directly on top of the pipes and the pile built up around them.

Once the material have been formed into windrows they will be top dressed with a 150mm thick layer of the base material and sprayed with EWS compost formula to reduce odour and accelerate composting time.

The aeration pipes consist of lengths of PVC piping with 16mm holes drilled in at 300mm intervals. The ends are covered with fly mesh to prevent the infiltration of insects. The pipes suck in fresh air from outside the pile and feed it directly into the centre of the pile. As the temperature of the pile increases the cooler air from outside the pile will be drawn into the pile through the pipes. This passive aeration process is very efficient, eliminating the need to turn the pile and greatly speeding up the composting process.

The piles reach their internal optimum temperature of 60-70 degrees Celsius within 24 hours of being formed, and then maintain this temperature for 10-12 weeks. During this time there will be a significant loss of moisture from the pile due to steam being produced and escaping. The moisture content of each pile will be monitored over this period to determine moisture requirements. Moisture can be added as needed by means of low pressure, low flow sprinklers positioned over the top of each pile. Water for this purpose will be sourced from the leachate dam. A pump will be used to deliver water from the dam to the sprinklers. Full maturity of the pile is reached when the temperature of the pile stabilises in the range of 45-55 degrees Celsius (usually 12-16 weeks after the process commences.)

Once mature, the outer layer of the finished pile is collected and used to form the nucleus of a new pile. This outer layer needs to be further composted as, being located on the outer perimeter of the pile, it would not have been subjected to the same high temperature as the inner section of the pile. Therefore it must be retained for further composting to ensure optimal temperatures are reached and the material is fully cured. When used as the starter material for a new pile this outer layer serves as an inoculant for the new raw material and in this way further accelerates the composting process.

The inner part of mature pile (now known as the final or cured product) will remain in place in the windrow formation until it is transported off site, although a portion of the curing batch will be used to cover freshly made windrows. Stockpiles will be wetted down during high wind events to guard against particulate dispersion.

Siting of the windrows is critical to facilitating airflow and to taking advantage of the prevailing atmospheric conditions such as sunlight and wind exposure. To ensure the homogeneity of product and uniformity of

processing time, the stockpiles will be subjected to the same conditions of exposure; this usually dictates a north-south alignment which will expose the piles to maximum sunlight, and the avoidance of shade.

The aspect and size of the windrow and the porosity of the material affect how well passive aeration systems work. These factors also affect heat loss and thus the internal pile temperature. Stabilisation of the pile is enhanced by controlling the size and porosity of the windrow so that it is both small enough (in cross-sectional area) and 'fluffed up' enough to allow adequate oxygen transfer, yet large enough by critical mass to retain some heat.

The control of temperature is an important aspect of composting as the metabolic heat generated by the microorganisms within the compost pile elevates the temperature of the pile. Pile temperature is accepted as an appropriate indicator the aerobic conditions are being maintained.

Temperatures within 40-60 degrees promote maximum biological activity. An elevated temperature (60 degrees Celsius) promotes rapid decomposition rates, and temperatures in excess of 55 degrees Celsius for 3 days are effective in killing weed seeds. Excessive temperatures can occur, and temperatures can exceed 70 degrees Celsius, which limits microbial activity, delays stabilisation and presents a risk of spontaneous combustion.

A significant advantage over turned piles is that the temperature of passively aerated windrows is able to be more consistently maintained.

Daily measurement and recording of temperature will be undertaken as part of quality control procedures.

Suboptimal temperatures will be rectified by:

- adjustment of the moisture content of the compost pile (wetting or drying as appropriate)
- addition of more EWS compost formula/poultry manure
- modification of the pile profile, ie. Increasing or decreasing the cross sectional area.

To minimise odour generation and to maximise the rate of composting, the concentration of oxygen in the compost pile will be kept between 10-14%, with the optimum concentration being 12 % (Standards Australia AS4454-2002).

Oxygen levels will be maintained by

- Observing proper operational protocols when mixing feedstock, to ensure that sufficient bulking agents are included to achieve an open structure prior to formation of windrows
- Undertaking regular inspections of the aeration pipes to ensure they are free from blockages and structural weaknesses
- Laying the aeration pipes at regular and consistent intervals along the length of the windrow
- Orientating the windrow to maximise seasonal air flows
- Undertaking regular monitoring of oxygen levels throughout the composting process

Moisture loss occurs during the composting process as a result of the evaporative cooking of the pile, making composting a net user of water.

Inadequate moisture can reduce efficiency in winter and generate excessive heat in summer; consequently water often needs to be applied to maintain optimal moisture levels and to avoid spontaneous internal combustion of a stockpile. Replenishment of the piles will be achieved by rainfall or the reuse of leachate water from the dam (via a sprinkler system).

The optimum moisture level for a compost pile is between 55% and 60%.

It is estimated that there will be 2 employees onsite with 2 extra being employed as truck drivers. It is estimated that there will be approximately 50 truck movements per week delivering the raw material with a backload of finished product leaving the site.

## Property Details/History

	Checked	Comments
File History	Yes	
Title Plan	Yes	
Check Ownership	Yes	

Is there any other issue that requires notation? No

## Application Type

Is this application an Integrated Development Application? Yes

Is this application a Designated Development Application? No

Is this application for State Significant Development? No

Is this application submitted by/on behalf of a Public Authority? No

Is this application a staged Development? Yes

**Details of Staging:** Currently the applicant has been trialling Dissolved Air Flootation (DAF) sludge. This comes from the Baiada Chicken processing plant in Tamworth. The chicken meat is continually washed and cleaned with water. This waste water is collected and processed through a treatment plant where the proteins and fats are concentrated and skimmed off. The skimmed off product is the DAF. Licencing for the use of this product is not required by the EPA. Licencing is required for the use of hatchery waste, tannery waste and grease trap waste. This application is for the use of DAF and Hatchery Waste.

Therefore staging will consist of the use of DAF as Stage One and Hatchery Waste as Stage Two. Baiada is required to get a resource recovery exemption from the EPA after the approval has been issued from Council for the composting facility. The applicant is not required to gain the approval. No details of the tannery waste or grease trap waste is available yet, therefore it will be subject to a further application.

Is this application a section 96 amendment? No

## Concurrence/Referral

*Section 79b – EP & A Act*

Does this application require concurrence referral? Yes

Does this application require courtesy comment? No

Department	Referral	Response Received	Comments/Issues Raised
EPA	Yes	Yes	<ul style="list-style-type: none"> <li>• A resource recovery exemption would need to be acquired for the hatchery waste and possible tannery waste use.</li> <li>• Do not require a detailed odour modelling for the proposal due to the current distance to the nearest receptor.</li> <li>• Need to be assured that dwellings could not be built on the adjoining lots and as a result reduce the current buffer zone distances to sensitive receptors.</li> <li>• No wind modelling was provided to support the conclusion that there will be no offensive odour impacts.</li> <li>• All of the above comments relate to the operation using hatchery waste not DAF.</li> </ul>



<b>CMA</b>	Yes	Yes	<ul style="list-style-type: none"> <li>• Border River/Gwydir Catchment Management Authority have issued a Property Vegetation Plan to allow clearing on sections of the land.</li> <li>• An offset area has also been included for the clearing.</li> <li>• The applicant intends not to carry out extensive clearing on the land as it helps with buffering for the composting site.</li> </ul>
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**Is there any other issue that requires notation?** No

**Has this application been referred to the Development Assessment Unit?** Yes

**Date of Referral:** 11 October 2012

**Outcome:** Recommended approval subject to conditioning.

**Does this application require referral for decision by Council?** Yes

### Local Environmental Plan

*Section 79c(1)(a)(i) – EP & A Act*

**This land is zoned:** Rural Agricultural 1(a) under Uralla LEP 1988

<u>List the relevant clause/clauses applicable under the LEP</u>		
Clause	Compliance	Comment
Zone Table	Yes	This development is permissible with consent.
29	Yes	Development in the vicinity of a Heritage Item or Heritage Conservation Area – complies

**Is there a draft LEP or draft LEP amendment which may affect this proposal?** No

**Is there any other issue/feature that requires notation?** Yes

**Comment:** Council is required to consider the application under the provisions of the Uralla LEP 1988 as this was the current instrument at the time of submission of the development application to council.

**Do 'existing use' provisions apply to this development?** No

### Development Control Plan

*Section 79c(1)(a)(iii) – EP & A Act*

**Does the Uralla DCP 2011 apply to this land/proposal?** Yes

<u>List the relevant clause/clauses under the applicable DCP</u>		
Chapter	Compliance	Comment
4 - Rural Development	Yes	<ul style="list-style-type: none"> <li>• Biodiversity performance outcomes have been met.</li> <li>• Bushfire management considered and conditioning applied.</li> <li>• Access complies</li> </ul>
13 – Notification Procedures	Yes/No	<ul style="list-style-type: none"> <li>• Notification was carried out as per the provisions of this chapter.</li> <li>• There were 2 submissions that were referred to the Development Determination Advisory Unit for consideration.</li> </ul>

Is there a draft DCP which may affect this proposal?

No

### Regional Environmental Plan

There is no REP applicable to this area.

### State Environmental Planning Policy

Is this proposal affected by a SEPP?

No

### Planning Agreement

*Section 93F (10) – EP & A Act*

Is there a Planning Agreement in force under section 93F of the EP&A Act?

No

Has a Planning Agreement been offered under this development?

No

### Planning Strategies/Local Policy

*Section 79c(1)(b) – EP & A Act*

Is there a Planning Strategy or Local Policy that requires notation?

No

Has the applicant submitted any supporting planning assessments?

Yes

**Comment:** Threatened Species Assessment, Noise Assessment, Geotechnical Soils Assessment and Aboriginal Cultural Heritage Assessment

Is there any other issue/feature that requires notation?

No

### Subdivision

Is this application for subdivision?

No

### Environmental Impacts

*Section 79c(1)(b) – EP & A Act*

Does this proposal have any potential impact on?

	Impact	Comment
<b>Social</b>	No	There is not social impact.
<b>Economical</b>	Yes	The economical impact will be employment for 2 persons onsite and 2 truck drivers based offsite. It will also provide economical gain for the suppliers of the greenwaste.
<b>Siting &amp; Configuration</b>	Yes	The siting has been determined in the best position on the property to provide the best buffers, visual amenity and privacy.
<b>Setbacks</b>	Yes	The setback from boundaries and other sensitive receptors ie dwellings complies with all current legislation and guidelines.
<b>Privacy</b>	Yes	The siting of the composting area has been determined in the best position on the property to provide the best buffers, visual amenity and privacy.
<b>Overshadowing</b>	No	There will be no overshadowing.
<b>Solar Access</b>	Yes	Solar access will be taken into account and achievable for all infrastructure buildings.

<b>Visual</b>	No	The composting site will not be visible from Balala Road nor any adjoining dwelling.
<b>Significant Views</b>	No	There will be no significant views affected by this development.
<b>Amenity</b>	Yes	The amenity of the area will only be affected if poor management practices are applied to the development.
<b>Water</b>	Yes	<p>The working areas of the facility, leachate barrier, collection and storage system have been designed in accordance with the Minimum Design Requirements of the Department of Environment and Conservation (NSW), <i>Environmental Guidelines: Composting and Related Organics Processing Facilities, July 2004</i>.</p> <p>Surface water controls have been designed so that clean and dirty water do not mingle.</p> <p>All upstream uncontaminated water is prevented from entering the composting area.</p> <p>Hydrological assessment and monitoring of the water quality will be undertaken as required by any licencing conditions from the EPA.</p> <p>Water will be recycled throughout the composting process.</p> <p>There will be two 130,000 rainwater tanks available for fire fighting, plus 4 dams on the property that would have a combined capacity of approximately 500,000.</p> <p>There is quarry on the land which holds approximately 20,000 litres that could be used for fire fighting purposes. It is estimated that with recycling, no more than 1,000 litre per day would be used in the composting process during the summer months.</p>
<b>Air</b>	Yes	<p>The nearest dwelling is just on 2kms away from the composting site.</p> <p>Good management of the composting process will be undertaken to minimise the release of odours, gases and particulate matter.</p>
<b>Noise</b>	Yes	The only noise will be the machinery and delivery trucks. The hours of operation will be 7.00 am until 9.00pm. The actual mixing process will only take approximately 4 hours a day. The noise will be the unloading of the raw waste and the loading of the finished product.
<b>Land Degradation</b>	No	There will be no land degradation. All construction works will have a soil erosion and sediment control plan approved by Council as part of the Construction certificate approval.
<b>Tree Loss</b>	Yes	<p>Approval has been given for some restricted clearing by the CMA.</p> <p>This is for remanent woodland (not post 1990).</p>
<b>Flora</b>	No	<p>The threatened ecological community White Box, Yellow Box, Blakely's Red Gum Woodland was recorded onsite. The 7 part test applied as per the provisions of the EP &amp; A Act found that there is unlikely to be significant impacted by the development.</p> <p>In regard to the Threatened Species Act listings, a Species Impact Statement and Environmental Impact Statement are not required.</p>



<b>Fauna</b>	No	<p>Koala habitat was also significantly tested and it was found that there is unlikely to be significant impacted by the development.</p> <p>In regard to the Threatened Species Act listings, a Species Impact Statement and Environmental Impact Statement are not required.</p>
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### Environmental Impacts – Threatened Species

*Section 79c(1)(b) – EP & A Act*

- Has a Threatened Species Impact Assessment been prepared?** Yes
- Are there any species/communities listed under the TSC Act?** Yes
- Comment:** The threatened ecological community White Box, Yellow Box, Blakely's Red Gum Woodland was recorded onsite. The 7 part test applied as per the provisions of the EP & A Act found that there is unlikely to be significant impacted by the development.
- Does the proposed development require approval under the EPBC Act?** No
- Is a Species Impact Statement required?** No

### Environmental Impacts – Heritage

*Section 79c(1)(b) – EP & A Act*

**Does this proposal have any potential impact on?**

Heritage	Impact	Comment
European	No	The property adjoins Balala Station. This property has listed items of environmental heritage on it. They consist of buildings and associated infrastructure. There are no ghost sites or archaeological sites listed.
Aboriginal	No	An Aboriginal Cultural Heritage Assessment was carried out with it coming to the conclusion that the study site was unlikely to have provided resources suitable for Aboriginal use or occupation and that there was very low potential for sub-surface deposits. There were three recommendations which can be conditioned.

- Is this land classified as containing an item of environmental heritage?** No
- Is there an impact on and adjoining or in close vicinity to an item of environmental heritage?** No
- Is this proposal in a heritage conservation Zone?** No
- Is this proposal in an adjoining or in close vicinity to a conservation zone?** No
- Has a Heritage Impact Statement been prepared for this proposal?** No
- Has an Archaeological Survey been prepared for this proposal?** Yes
- Comment:** An Aboriginal Cultural Heritage Assessment was carried out with it coming to the conclusion that the study site was unlikely to have provided resources suitable for Aboriginal use or occupation and that there was very low potential for sub-surface deposits. There were three recommendations which can be conditioned.
- Is there any other issue/feature/impact that requires notation?** No

### Flooding

*Section 79c(1)(b) – EP & A Act*

- Is this property flood affected?** No

## Bush Fire Prone Land

*Section 79c(1)(b) – EP & A Act*

**Is this property bush fire prone as per the Bush Fire Prone Map?** Yes

**Category:** Category1 & Buffer

**Has a Bush Fire Management Plan been Prepared?** No

**Has this plan been accepted by the NSW Rural Fire Service?** No

**Comment:** Referral was not required to the NSW RFS. A Bush Fire Management Plan will be a requirement of conditioning.

## Contaminated Land

*Section 79c(1)(b) – EP & A Act*

**Has this land been identified as being contaminated land by Council?** No

**Is it a possibility this land may be contaminated?** No

**Comment:** This land may become contaminated if there is bad management of the composting facility and the environmental monitoring is not carried out. The EPA will licence the monitoring factors required.

**Is this land in the close vicinity or adjoining a known contaminated site?** No

## Infrastructure

**Has an engineering assessment been completed?** No

**Does this proposal have any potential impact on:**

	Impact	Comment
<b>Sewer</b>	No	Not Applicable – No Council supplied service. A section 68 certificate application will be required for any onsite waste treatment installation. This will also require ongoing licencing.
<b>Water</b>	No	Not Applicable
<b>Drainage</b>	Yes	Contained onsite and has been incorporated into the composting area design.
<b>Access</b>	Yes	This is part of an assessment still to be provided.
<b>Kerb &amp; Gutter</b>	No	Not Applicable
<b>Upgrade Existing Road</b>	Yes	This is part of an assessment still to be provided.
<b>Road Network</b>	Yes	This is part of an assessment still to be provided.
<b>Existing Easements</b>	No	There are no easements that will be affected.
<b>Electricity</b>	No	Electricity will need to be provided to the infrastructure, not the mixing site. The requirements for this are those of the provider and not Council.

<b>Telecommunications</b>	No	Telecommunications will need to be provided to the infrastructure, not the mixing site. The requirements for this are those of the provider and not Council.
<b>Pedestrian Access</b>	Yes/No	Not Applicable
<b>Loading &amp; Unloading</b>	Yes	This will be onsite and there is sufficient area.
<b>Parking</b>	Yes	This will be onsite and there is sufficient area.
<b>Energy Conservation</b>	No	The applicant has applied all energy conservation methods available.

**Does the development require any new easements?** No

**Has an Erosion and Soil Control Plan been submitted?** No

**Was there any outstanding issues requiring attention?** Yes

**Comment:** A technical services report will be available at the Council meeting or consideration.

### Construction Assessment

**Is a construction assessment required?** No

**Is a Construction Certificate Required?** Yes

**Comment:** A construction certificate will be required for the earthworks and infrastructure buildings.

### Section 68 Assessment

*Section 68 – LGA Act*

**Is a section 68 assessment required?** Yes

**What the type of assessment/approval required?**

**Does this system require connection to a Council maintained system?** No

**Is there any other issue/feature/impact that requires notation from the assessment?** Yes

**Comment:** A Section 68 certificate application will be required for the installation of any onsite waste treatment systems installed on the property. This will also include the ongoing licencing.

### Developer Contributions

*Section 94 – EP & A Act*

**Does this proposal require any Developer Contribution?** Yes

**Is the contribution for a subdivision?** No

**Is the contribution for a special purpose relating only to this proposal?** Yes

**Comment:** This is part of the Technical Services report and will be presented at the Council meeting. A contribution based upon the number of tonnes of material transported to and from the property will need to be made

**Is there any other issue that requires notation?** No

### Signage

**Has this application included signage?** No

**Should a restriction be placed on the amount/type of signage?** Yes

**Will the signage require referral to the RTA or Local/Regional Traffic Committee?** No



Does this proposal require signage?

Yes

Comment:

### Notification

Section 79c(1)(d) – EP & A Act

Is this application an advertised development application?

Yes

Was this application advertised as per the provisions of?

DCP & Public Interest

Was this application notified as per the provisions of Council's Notification Policy?

Yes

Were there any written submissions received?

Yes

If Yes, what was the number of submissions received?

<b>Submission Maker</b>	<b>GJ Fuller</b>
<b>Issues:</b> <ul style="list-style-type: none"><li>• Odour</li><li>• Previous dwelling entitlements approvals on his land with this development creating health &amp; odour issues.</li></ul>	
<b>Comment:</b> With correct management of the composting process, odour should be kept to a minimum. The land on which Mr Fuller refers is in DP 263898. This land was given subdivision approval with dwelling entitlements in 1982 under the Uralla IDO where the minimum lot size with a dwelling entitlement was 40 ha. Dwellings have been constructed on 8 of the lots with 4 still vacant. They would have a dwelling entitlement under the Uralla LEP 2012. Three of these lots falls within the 2 km buffer. It should be pointed out that the 2 km buffer is not the minimum industry standard. The minimum is 500metres.	
<b>Submission Maker</b>	<b>G &amp; J McNally</b>
<b>Issues:</b> <ul style="list-style-type: none"><li>• Odour</li><li>• Potential Waterways contaminants</li><li>• Chemical used and transported in the DAF.</li></ul>	
<b>Comment:</b> This submission came in after the notification period had finished. The application of DAF directly to land is not an application that requires Council consent. Council investigated this complaint and found that the land on which the DAF had been spread had become saturated due to high rainfall, and the land could not have been worked over with lime as the tractor was getting bogged. Discussions with the applicant also revealed that he had been trialling different methods for composting the DAF prior to application. Lime is now not used and the composted DAF is breaking down quicker and with less odour. Several Inspections have been carried out with no further incident of odour being detected. In relation to the chemical in the DAF, chemicals are not used to wash the chicken meat. The water is potable and comes from the Tamworth town supply. The treatment of the water to enable the DAF to be skimmed involves a process using heat. The water is then reused for wash down or the abattoirs work area, not on the meat itself. A reply was sent to the submission makers.	

### Section 88b Instrument

Does Council require a Section 88b instrument to be prepared?

Yes

### Public Interest

Section 79c(1)(e) – EP & A Act

Does this proposal have any construction or safety issues?

No

**Is there any public health issues?**

No

**Comment:** A public health issue would only arise if there was poor management of the composting process and site.

### Site Suitability

*Section 79c(1)(c) – EP & A Act*

**Is this a suitable site for this proposal**

Yes

### Assessing Officer General Comment

**Comment:** This proposed development is permissible in the zoning. There is no reason as to why the application cannot be approved for the composting of DAF and green waste. This would allow the applicant to get the infrastructure in place for the later processing of hatchery waste and possibly tannery and grease trap waste. As the EPA have not yet issued a resource recovery exemption for the use of hatchery waste, it would be difficult to include the requirements of the EPA licencing in this approval for the DAF. Therefore a Staged approval should be issued with approval being given for the use of the DAF in the composting and with Stage Two approval being issued after the resource recovery exemption has been issued by the EPA.

### Recommendation

This development application be approved subject to the following conditions, including any necessary engineering or construction conditions that result from the conclusion of the engineering and construction assessment.

### ***PRESCRIBED CONDITIONS (under Environmental Planning and Assessment Regulation 2000)***

*Nil*

### ***GENERAL CONDITIONS***

1. This approval is for Stage One being the use of composting Dissolved Air Floatation (DAF) sludge and greenwaste only. This approval is for the processing of a maximum of 5,000 tonnes of raw organic material per annum. To extend the amount of raw organic material processed a further application will be required.
2. Further approval will need to be sought for Stage Two being the composting of hatchery waste after the Environmental Protection Agency have issued a resource recovery exemption.
3. The development must take place in accordance with the approved plans (bearing the Council approval stamp) and documents submitted with the application, and subject to the conditions below to ensure the development is consistent with Council's consent.
4. All Engineering works to be designed by a competent person, endorsed by a Certified Practicing Engineer, and carried out in accordance with Council's Engineering Code, unless otherwise indicated in this consent, to ensure that these works are of a sustainable and safe standard.
5. A Construction Certificate shall be submitted to and approved by the relevant Certifying Authority prior to construction commencing.
6. The recommendations from the Threatened Species Assessment prepared by EnviroAg Australia report number 23087.4661 are to be followed.
7. The recommendations from the Noise Assessment prepared by EnviroAg Australia report number 23086.46554 are to be followed.
8. The recommendations from the Geotechnical Soils Assessment prepared by EnviroAg Australia report number 22975.45907 are to be followed.

9. The recommendations from the Aboriginal Cultural Heritage Assessment prepared by Eureka Heritage report number 23087.4661 dated July 2011 are to be followed.
10. The proposed facility is to operate Monday to Friday between the hours of 7am to 8pm. A register is to be kept of all management and monitoring issues that arise outside of these hours for review six months from the date of the approval.
11. A Construction Certificate is to be submitted to and approved by Council for all infrastructure buildings.
12. A Section 68 certificate is to be submitted to Council for approval for all onsite sewerage treatment devices.

### ***CONDITIONS TO BE COMPLETED PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE***

13. Prior to the issue of a Construction Certificate, the applicants shall have prepared, by a suitably qualified person, detailed engineering drawings, submitted for Council's approval,
14. Prior to the issue of a Construction Certificate the applicants shall have prepared an Erosion and Sediment Control Plan and Soil and Water Management Plan, in accordance with the requirements of the Department of Housing's *Managing Urban Stormwater - Soils and Construction* is to be submitted with the application for a Construction Certificate for the development for approval by the relevant Certifying Authority. The soil and water management plan must include sediment basin calculations and the approved plan implemented in conjunction with the project.

### ***CONDITIONS TO BE COMPLETED PRIOR TO ISSUE OF CONSTRUCTION COMMENCING***

15. Council is to be given written notice of the intention to commence works and the appointment of a Principal Certifying Authority (if the PCA is not Council) at least two days before the proposed date of commencement, in accordance with cl 103 and 104 of the Environmental Planning and Assessment Regulation 2000.
16. Before construction commences on the site and throughout the construction phase of the development, erosion control measures are to be installed to prevent soil erosion, water pollution or the discharge of loose sediment on surrounding land, as follows:
  - divert contaminated run-off away from disturbed areas,
  - erect silt fencing along the downhill side of the property boundary,
  - prevent tracking of sediment by vehicles onto roads by limiting access to the site and, where necessary, installing a temporary driveway and
  - stockpile all topsoil, excavated material and construction debris on the site, erecting silt fencing around the pile where appropriate.

Failure to take effective action may render the developer liable to prosecution under the NSW Protection of the Environment Operations Act.

### ***CONDITIONS TO BE COMPLETED PRIOR TO OCCUPATION/USE COMMENCING***

17. Bushfire Management Plan is to be prepared prior to commencement of operations. This is to be prepared taking into account the principles outlined in the NSW Rural Fire Service document *Planning For Bushfire Protection 2006*.
18. The vermin proof fence is to be constructed around the facility prior to commencement.
19. An environmental monitoring, inspection and reporting schedule is to be developed prior to commencement of operations. All the various monitoring requirements is to be incorporated into one document. The results of all testing, inspection and monitoring will be recorded in an environmental audit log and kept on site at all times. A copy is to be provided to Council upon request.



20. An environmental management plan (EMP) is to be prepared for the composting facility. The EMP will be based on an environmental management system approach of plan, do, check and act, together with a philosophy of continual improvement of the system and its operation. It will specify:

- (i) the standards and practices for the operation of the composting facility
- (ii) strategies and measures for minimizing environmental risks
- (iii) contingency plans for managing any environmental problems that may arise.

The objective will be to apply best management practice, in order to minimize the environmental impacts associated with facility operations and management, and to comply with legislative requirements. It will include:

- a) contact details, description of the facility and operations and an environmental management policy statement
- b) overall objectives and specific, measurable and time-bounded targets for each identified risk event
- c) a list of risk events identified using risk management principles
- d) day-to-day best practice strategies to minimize the potential for risk events
- e) details of contingency plans to deal with accident and emergencies (eg flood; fire; disposal of contaminated material, inability to deliver raw and composted material; chemical spill; power and/or water interruption), including trigger points and target response times for critical incidents
- f) details of the responsibilities of the facility owner/manager regarding environmental management
- g) details of monitoring systems for assessing environmental performance and procedures, to ensure regular and accurate recording of data
- h) procedures for responding to complaints
- i) provision for annual review and auditing of performance against EMP objectives, with appropriate adjustment made in light of findings and in accordance with continuous improvement principles
- j) provision for post-incident investigation, review of emergency actions carried out, and reporting to local council if requested
- k) environmental training undertaken by staff.

21. Landscaping is to be used to soften the visual impact of the development, and will also assist in reducing noise, dust and odour. Landscaping is to be undertaken around the facility site. All plantings will blend in with the local vegetation and are low maintenance and are suitable for the site.

22. The farm will be kept in a tidy condition as this will help the visual amenity. All existing vegetation will be retained where possible with the natural topography of the site and the existing vegetation cover and tree plantings being used to maximize visual screening.

### ***CONDITIONS RELATING TO ONGOING OPERATIONS***

23. A complaints register is to be kept as liaison between the facility owner/manager and neighbours is important. Open lines of communication will help identify problems, verify complaints and successfully apply relevant remedies to minimise the impact of farm operations. Measures used are to include:

- Neighbouring landholders will be informed of unusual events or problems that may arise
- The complainant is informed of outcome and action taken to avoid reoccurrence
- Significant on-farm operational activities are recorded, particularly those with potential impact

The Environmental Management Plan is to have strategies, measures and contingency actions for managing community liaison and complaints about environmental impacts or problems that may arise.

24. All trucks are to be washed down prior to leaving the premises to prevent any residual matter being spread to areas outside of the facility.

25. All trucks are to be covered bringing material to the facility and leaving with the finished product.

26. There is to be no illegal dumping of contaminated material on the property. Council is to be provided with information within the Environmental management plan as to the method of disposal of contaminated material.

27. All stockpiling is to be kept to the following:

- Finished product – not greater than 7,500 tonnes
- Raw organics – greenwaste 5,000 tonnes, DAF 2 days

28. Any DAF that cannot be processed on the day of receipt is to be covered with a 15cm thick layer of curing compost.

29. Any stockpiled finished product is to be maintained aerobic conditions and to distribute moisture and leachate within the pile.

## Conclusion

I confirm that I am familiar with the relevant heads of consideration under the Environmental Planning & Assessment Act and Local Government Act (if applicable) and have considered them in the assessment of this application.

I certify that I have no pecuniary or non-pecuniary interest in this application.

Additional Notes Attached:

No

Signed: .....



**Date: 16 October 2012**