

COUNCIL ASSESSMENT REPORT

Panel Reference	2016NTH031
DA Number	DA2017/0229
LGA	Tamworth Regional Council
Proposed Development	Organic Waste Processing and Recycling Facility.
Street Address	Off Duri-Wallamore Road, Westdale
Applicant/Owner	Tamworth Regional Council
Date of DA lodgement	6 December 2016
Number of Submissions	Six
Recommendation	Approval, subject to Conditions.
Regional Development Criteria (Schedule 4A of the EP&A Act)	Development with a “capital investment value” of more than \$5 million located on land owned by council, as well as being a designated development defined as a “waste or resource management facilities”.
List of all relevant s79C(1)(a) matters	<ul style="list-style-type: none"> • relevant environmental planning instruments <ul style="list-style-type: none"> State Environmental Planning Policies (SEPPs): <ul style="list-style-type: none"> ○ SEPP (Infrastructure) 2007 ○ SEPP 33 – Hazardous and Offensive Industry ○ SEPP No.44 – Koala Habitat Protection ○ SEPP No.55 – Remediation of Land • proposed instrument that is or has been the subject of public consultation under the Act and that has been notified to the consent authority <ul style="list-style-type: none"> ○ The Tamworth Regional Local Environmental Plan 2010 • relevant development control plan <ul style="list-style-type: none"> ○ The Tamworth Regional Development Control Plan 2010 • relevant planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F <ul style="list-style-type: none"> ○ None.
List all documents submitted with this report for the Panel’s consideration	<ul style="list-style-type: none"> • Submissions Report dated April 2017 prepared by KMH Environmental; • General Terms of Approval of the NSW Environment Protection Authority dated 14 September 2017; • Six Submission Letters; and • Plans and elevations.
Report prepared by	Amanda Faulkner
Report date	2 November 2017

Summary of s79C matters

Have all recommendations in relation to relevant s79C matters been summarised in the Executive Summary of the assessment report?	Yes
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Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report?	Yes
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e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?	Not Applicable
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Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S94EF)?	Not Applicable
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Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions

Conditions

Have draft conditions been provided to the applicant for comment?	Yes
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Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report

EXECUTIVE SUMMARY:

The development application is for an “organic waste processing and recycling facility” to be located at the western end of the land which comprises the Tamworth Regional Airport, located in Westdale. The facility will be accessed from Duri-Wallamore Road. Tamworth Regional Council is both the applicant and the land owner.

The application was lodged with Tamworth Regional Council on 6 December 2016 accompanied by the statutory fee, which included an integrated development fee for the Environment Protection Authority to consider issuing their General Terms of Approval for an Environment Protection Licence under the Protection of the Environment Operations Act 1997.

Under the provisions of Clauses 13 and 32 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation), the development is ‘designated development’, as it involves:

- ‘compositing facilities or works’ that process more than 5,000 tonnes per year of organic materials, and
- ‘waste management facilities or works’ that purify, recover, reprocess or process more than 5,000 tonnes per year of solid or liquid organic materials.

As a result, an Environmental Impact Statement (EIS) prepared in accordance with section 78A(8)(a) of the Environmental Planning and Assessment Act, 1979 (EPAA) and Schedule 2 to the EP&A Regulation and the Secretary’s Environmental Assessment Requirements (SEARs) has been submitted.

The application has been referred to the Joint Regional Planning Panel (JRPP) for determination as the proposed development has a “capital investment value” of more than \$5 million with Tamworth Regional Council being both the applicant and landowner, and it is also a designated development for the purpose of a waste management facility.

The application was referred to various relevant government agencies, including the EPA (as ‘integrated development’), the NSW Department of Primary Industries – Water (DPI Water), the NSW Department of Primary Industries – Agriculture (DPI Agriculture), the Roads and Maritime Service (RMS) and the Office of Environment and Heritage. As the proposal is located on lands occupied by the Tamworth Regional Airport, the application was also referred to Airservices Australia.

The application was advertised and notified to adjoining and nearby landowners. The public exhibition period was from Monday 19 December 2016 until Monday 6 February 2017. A total of 6 submissions have been received.

The potential impacts of the proposal for consideration are: air quality (odour impacts), noise, biosecurity (with respect to the nearby agricultural and poultry related land uses), traffic generation (the need for upgrades to the existing road network), wastewater (leachate storage), loss of agricultural land and visual amenity.

DESCRIPTION OF THE PROPOSAL:

Overview

The proposal has two main components:

- Construction and operation of an organics recycling facility; and
- Ancillary activities including road works and utilities supply to the site.

Construction Works

The key stages of construction are outlined below.

Stage 1 – Ancillary and Enabling Works

Ancillary and enabling works will be completed in Stage 1 including road upgrades and connection of utilities to the site.

Road and intersection upgrades will be undertaken by Tamworth Regional Council (or its contractor) and include:

- Line marking of the Oxley Highway:
 - Widening of western leg of the intersection of the Oxley Highway and Old Winton Road to enable a truck turning path of 26m B-double vehicle;
 - Widening of Old Winton Road to accommodate: 3.5m lanes, 1m shoulders, 1.5m verges and mowable drainage swales/table drains; and
 - Repositioning of the alignment of Duri-Wallamore Road to the centre of the road reserve and widening to accommodate: 3.5m lanes, 1m shoulders, 1.5m verges and mowable drainage swales/table drains.
- Installation of intersection lighting; and
- Construction of an entry/exit to the site from Duri-Wallamore Road.

The connection of an Effluent Reuse Water rising main to the site will also be undertaken by Tamworth Regional Council (or its contractor) and will require the extension of the existing 450mm rising main located south of the proposed development site.

Stage 2 – Main Works

The main works to be completed in Stage 2 include the following key activities:

- Site mobilisation works including:
 - Establishment of site compound and stockpile sites in the northwest corner of the site;
 - A services search; and
 - Establishment of environmental management measures including erosion and sediment controls.
- Excavation and Civil works involving:
 - Site stripping, clearing and rubbish removal;
 - Vegetation removal (existing forage oat crop and weeds);
 - Cut and fill earthworks (approximately 51,000m³ based on a 3% grade in process areas); and
 - Construction of stormwater and leachate dams.
- New building works.
- Pavement works involving the construction of impermeable working pads for the compost processing areas.
- External and miscellaneous works:
 - Provision of fire services;
 - Provision of water storage tanks;
 - Construction of weigh bridge facilities;
 - Construction of wheel washer facilities;
 - Installation of power reticulation;
 - Installation of perimeter lighting;
 - Installation of plumbing and an onsite sewage management system; and
 - Site landscaping.

An onsite sewage management system such as an aerated wastewater treatment system, or similar, is proposed for use on site as there are no existing sewer services in the area.

Low voltage electricity will be connected to the site via a new pole mounted transformer located in the road reserve south of the entry to the site.

All excavated material (excluding weeds and rubbish) will be reused on site as fill material. No imported general fill material is expected to be required for the construction works. The construction phase for the proposed facility is anticipated to take approximately 5 months.

During construction a maximum of 20 truck movements per day are expected. These movements will primarily be related to delivery of materials and movements on site for a short term period. Some light vehicles for construction workers travelling to and from the site are also expected.

Operations

The facility is proposed to operate from 8.00am to 4:45pm Monday to Friday and 8.00am to 12 noon on Saturdays. The facility will be closed on Sundays.

All site activities to be performed between 7.30am to 5.30pm Monday to Friday and 8.00am to 5.00pm Saturday, with the exception of the fan/aeration system which will operate on a continuous duty cycle as required.

Once operational the facility will employ approximately 6 fulltime employees.

Currently the general public dispose of organic waste at the Forest Road Landfill in North Tamworth, where it is processed into mulch. It is proposed that the public will continue to deposit organic waste at Forest Road and the organic waste will be transferred to the proposed facility for processing. The public will not be able to dispose of organic waste directly at the new facility.

The operational environmental management for the site will be addressed by the operational contractor and will be managed through an Operational Environmental Management Plan (OEMP).

The facility is expected to generate up to 40 truck movements in a peak hour. Operational traffic includes kerbside collection vehicles, dual axle tipper, semi-trailer tipper, truck and trailer, quad dog and trailer, B double truck, road train and staff and maintenance vehicles. No public or associated vehicles will access the site.

The majority of traffic movements will be related to delivery and dispatch vehicles. Access to the site will be via a left hand turn from Duri-Wallamore Road to an internal access road. Prior to unloading vehicles will pass through a weighbridge. All vehicles entering the site will turn south into Duri-Wallamore Road from Old Winton Road and the Oxley Highway. A network of paved internal access roads will facilitate vehicle movements within the site.

Egress will be via a right hand turn onto Duri-Wallamore Road. Prior to exiting the site vehicles will pass through a wheel wash. All heavy vehicles exiting the site will turn north into Duri-Wallamore Road towards Old Winton Road to access the Oxley Highway.

The north-west corner of the site will contain a weighbridge, site office, equipment shed and water storage tanks. The office/amenities building will be approximately 22m long by 7.5m wide. The equipment shed has been designed to allow for storage and servicing of the equipment and vehicles to be used on site. The shed will be a 40m long by 20m wide steel frame structure, which is 8m high with a 2 degree duo-pitch Colorbond roof. Vehicular access to the shed will be through four roller doors, three located on the southern wall of the shed and the fourth on the northern wall.

Both the office and the equipment shed are designed to allow rooftop rainwater capture for use on site as potable water and truck wash water. Rainwater collected for amenities use will be filtered

twice (40 micron and 10 micron) followed by an Ultra Violet treatment system. Reclaimed effluent water supplied from Westdale Waste Water Treatment Plant will be utilised as compost process water after bacterial treatment with disinfection by an Ultra Violet treatment system has occurred. To meet additional requirements for the truck wash and other operational activities (not composting) in a dry year, potable water will be imported if/or when required.

A dispatch area has been designed to provide an area for composted material and other outputs to be loaded onto vehicles for dispatch from the site. The area has a nominal size of 850m² and will be paved. Dedicated drainage lines will transport any stormwater runoff water from this area to a leachate dam. The leachate dam has been sized to accommodate 6ML. Leachate from the dam will be reused onsite for watering the unpasteurised batches of organic material. During extreme weather events (e.g. larger than 1-in-25 year 24-hr rainfall) the design of the leachate dam allows overflow (above the design storm criteria) into the stormwater dam, then offsite into Bolton's Creek during high creek flow conditions. Discharge requirements are controlled by the EPL that will be obtained for operation of the site.

A wash bay will be located on site to accommodate a maximum truck width of 2.8m to wash both front and rear wheels.

A receivals area has been designed to provide a controlled area for unloading of organic waste. The canopy is a steel frame, braced portal frame structure with a roof. The building has been designed to provide shelter to the compostable materials dropped off on site. The building is approximately 50m long by 20m wide and at its highest point is 11.3m in height.

A maturation and pasteurisation area has been designed in a grid pattern to provide a controlled area for the composting process. The grid pattern identifies 2 pasteurisation stages and 2 maturation stages and a batch number. The area has a nominal size of 10,000m² and will be paved.

The following plant and equipment will be utilised:

- MAF units (32 in total) including blowers, pipework, manifold units and electrical components;
- A telehandler that has a maximum working height of >4m;
- A dispatch truck with a minimum 10 cubic metre capacity tipper;
- A horizontal grinder;
- Two wheel loaders that have a maximum working height of >4m;
- A trommel, flip or star screen suitable for screening mature compost; and
- A raised sorting conveyor that is enclosed with a controlled environment for pickers.

The site will include operational lighting in key areas and along internal access roads. A perimeter fence with vermin mesh, signage and site landscaping is also proposed. Landscaping will include establishment of vegetation screens at the frontage of the site.

Water for use on the site will be obtained from three key sources:

- Water will be obtained via a 150mm branch connection pipeline from the existing 450mm Effluent Reuse Farm rising main approximately 520m south of the site;
- Rainwater will be collected from building roofs across the site and stored in tanks; and
- Fire suppression water and back up potable water will be transported to site via water tanker and stored in tanks.

Water collected in the stormwater and leachate dams will also be reused on site.

Composting Process

A Covered Aerated Static Pile (CASP) technology system known as Mobile Aerated Floor (MAF) technology will be used. This system has the following advantages over traditional windrow composting:

- Improved aeration which ensures faster composting and consistent temperature control;
- Improved monitoring and control through computer controlled aeration which ensures:
 - Ongoing management of potential operational and environmental impacts;
 - Control of electricity use (reduced energy usage per cubic metre of compost produced);
 - Control of water demand.
- Reduction in the need for turning and the associated time and fuel costs associated with this activity;
- Reduction in the time required for the composting process (utilising a CASP system can more than halve the 16-20 week windrow composting process); and
- Increased quantities of organic waste can be processed at a time.

A formal procurement process will be applied to select a suitable technology supplier and operator of this facility on behalf of TRC who can ensure its operational success.

The emphasis of the proposal is to divert waste from landfill.

The facility has been designed to process up to 32,000 tonnes per annum of source separated organic waste (food and garden organics, timber, paunch, highly putrescible solid waste, general solid waste and liquid waste), which is known to be generated in the Tamworth LGA. After processing, it is anticipated the facility would produce in the order of 19,000 tonnes per annum of composted products.

The facility will produce various grades of soil conditioners and composted mulches, such as:

- <10mm composted soil conditioner;
- 10-20mm composted fine mulch; and
- 20-30mm composted mulch.

The compost products produced at the proposed facility will be of a high quality suitable for sale in both agricultural and urban amenity markets such as landscaping supplies.

To ensure the processed products meet customer specifications and comply with all regulatory requirements (Resource Recovery Orders/Exemptions), the facility will have ongoing material sampling, quality testing, field testing and operational auditing.

Non-compliant product will be further processed or disposed of as waste via a suitably licensed waste disposal facility. Any physical contaminants will be removed through manual picking and screening and will be classified and transported to a suitably licenced waste management facility for disposal.

Material sampling, quality testing, field testing and operational auditing will also be undertaken. The testing of the material will include at least the following:

- Temperature testing of each compost batch on a daily basis;
- Moisture testing of each compost batch on a weekly basis or as required;
- pH testing of compost as required;
- Oxygen and/or carbon dioxide testing of compost batches as required;
- Product maturity using Solvita test kits or equivalent; and
- Physical and chemical contaminants in the final product.

Material Process and Storage Procedures

Receivals Area

Any putrescible organics delivered to the site will be received under cover at the receivals area and will be processed on the same day, with no stockpiling of unprocessed material overnight. The receivals bays have walls on three sides to contain the unprocessed material and minimise the potential for wind-blown material. Non-putrescible organics such as wood waste may be stored for several weeks in the bulk non-putrescible organics receivals area.

The receivals area will be sloped and bunded to control leachate, minimise emissions of dust, odour and litter. In the case of plant breakdown, the organics receivals area can provide 2 days storage capacity for putrescible organics and over 1 month's storage for non-putrescible materials. All capacity calculations assume the facility is operating at full capacity.

Covered Aerated Static Pile (CASP)

The various types of solid organic waste and liquid waste will be initially combined into a specific batch recipe in the receivals area, in preparation for being moved to the working surface area (pasteurisation phase 1). Key conditions or considerations for processing include carbon to nitrogen ratio, moisture content and porosity (to allow air flow). The batch is formed on carefully arranged perforated pipes and will generally have a size of approximately 500-600m³ (300-400 tonnes) in small batches or piles up to 2-3m high and trapezoidal in shape. As the batch is formed a semi permeable cover will be placed over the batch to minimise odour and assist in maintaining stable pasteurisation conditions. Each batch will stay in phase 1 and each subsequent phase, for approximately 2 weeks. To minimise all environment risks and maintain maximum process control, no batches will be formed with a height of over 5m.

Aerated Static Pile (ASP)

After each 2 week CASP period (4 weeks total) all batches are moved by a front end loader one step up the grid creating an empty phase 1 working surface for the formation of a new batch. The semi permeable covers are removed from the phase 1 and phase 2 pasteurisation piles before moving and stored ready for use on the next phase 1 batch. All subsequent processing phases (maturation phases) operate as uncovered ASP. The pipes and blowers are moved with each batch during pasteurisation phase 1 and phase 2 so that all phases can be mechanically aerated. The maturation stages (maturation phase 1 and maturation phase 2) require less aeration, however depending on weather conditions additional process water must be added to maintain optimum moisture content. The maturation phases generally last between 4-6 weeks. Once completed, the maturation phase 2 batch is removed from the working surface to the product storage and decontamination area.

Product Storage

On completion of the composting process the batches will be moved to the product storage and decontamination area where the product will be screened, sampled and tested. The use of screening equipment allows for the removal of oversize organics including contaminants. Oversize organics will be decontaminated using a conveyor sort system and pickers. The operator may also choose to use an automated decontamination system. Oversize organics will then be shredded for inclusion in products or reprocessing. Product will be stored in product storage bays with walls on three sides to contain product and minimise the potential for dust and litter. Any non-hazardous contaminants removed during the screening process will be stored in waste bins for transport to the FRWMF or other suitably licenced facility.

Composting Duration

Organics will be composted for 6-10 weeks depending on customer requirements. However, the standard process is 8 weeks including:

- 4 weeks of pasteurisation using CASP; and

- 4 weeks of maturation using forced aeration as required.

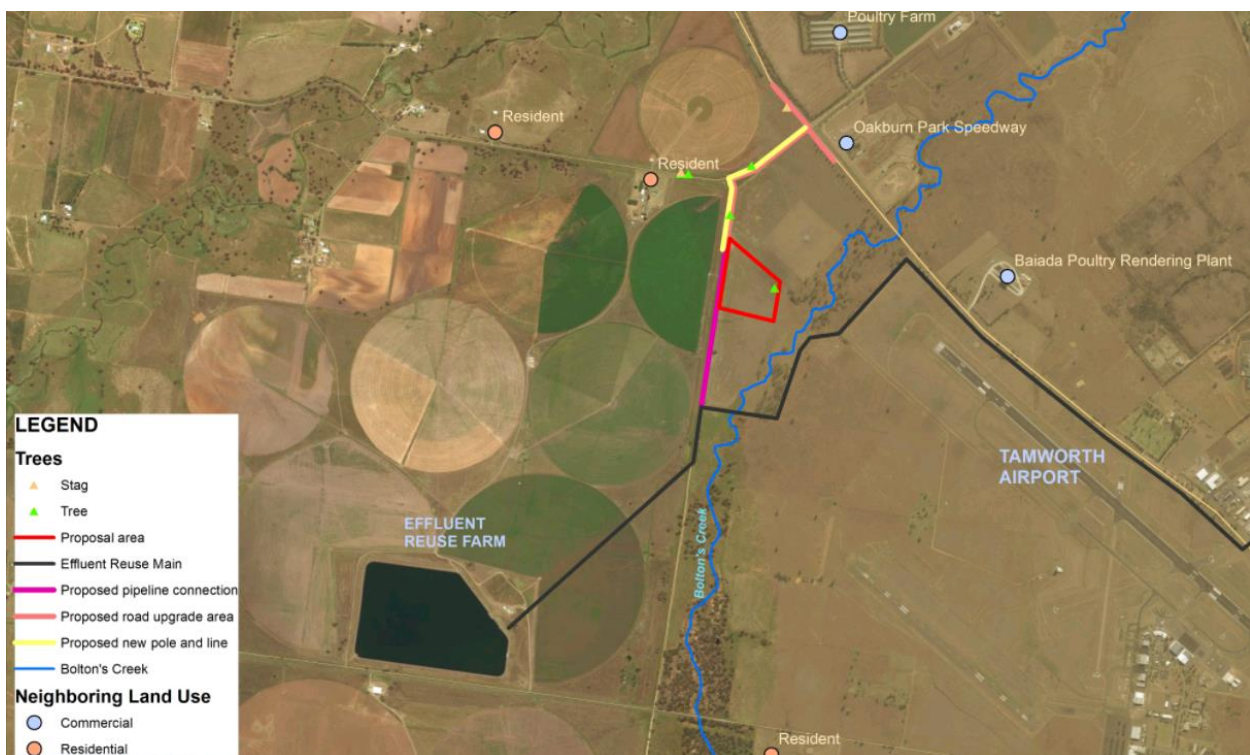
Utilising the CASP method more than halves the standard windrow 16-20 week time required to produce matured compost.

The proposed facility has been designed to securely store all organics, contaminated products, wastes and process residues that cannot be beneficially processed at the facility, until they can be disposed of to a suitably licenced facility.

An operational environmental management plan will be prepared for the facility with a Waste Management Plan (WMP).

THE SITE:

The proposed facility would be located adjacent to the north western boundary of Lot 2 DP 1119834, which is land having an area of 340.9 hectares and adjoining the western boundary of the Tamworth Regional Airport. The site is located approximately 10km from the Tamworth CBD and is currently used for agricultural pursuits (cropping). The area of Lot 2 which the proposed facility is to occupy is approximately 7.8 hectares and accessed from Duri-Wallamore Road. Duri-Wallamore Road connects to Old Winton Road (to the north), Old Winton Road then connects to the Oxley Highway (also to the north). The Oxley Highway is a classified road. Old Winton Road is a bitumen sealed road for the frontage of the site. Duri-Wallamore Road is an unsealed road for the frontage of the site.



The topography of the site and surrounding area is flat to gently undulating. Bolton's Creek runs through the site in an approximate north-south direction and is around 100m to the east of the site of the proposed facility.

The surrounding development contains a mix of land uses. The Tamworth Regional Airport is located to the east of the site area. Rural lands containing scattered dwellings are located to the west and south of the site area. The Oakburn Park Raceway (owned by Council and operated by the Tamworth Motorsports Association) and the Baiada Oakburn Rendering Plant are located to the north of the site on the northern side of the Oxley Highway. A poultry farm is located to the north of the site on the corner of the Oxley Highway and Bowlers Lane. Within close proximity to

the site area is a meteorological station, which is located on Lot 50 DP 861361. Lot 50 is surrounded by Lot 2 DP 1119834. The existing Council owned Effluent Reuse Farm is located to the south of the site at 85 Old Winton Road.

ASSESSMENT

Section 79C of the EP&A Act requires the consent to consider the following matters, where relevant, to the proposal:

a) The provisions of any current or draft environmental planning instrument, development control plan, or matters prescribed by the regulations.

State Environmental Planning Policies (SEPPs)

State Environmental Planning Policy (Infrastructure) 2007 (SEPP Infrastructure)

In accordance with the provisions of the SEPP Infrastructure, being a 'resource recovery facility', the proposed must be referred to the RMS and consideration of any response is required.

On 17 May 2017, the RMS provided the following response:

Roads and Maritime has reviewed the Response to Submissions and supporting Traffic Impact Assessment. The following comments are provided to assist the consent authority in making a determination:

- "1. The Oxley Highway and Old Winton Road intersection is to be upgraded to provide the following:*
- A channelised right-turn (CHR) treatment for southbound traffic.*
 - A channelised right-turn (CHR) treatment for northbound traffic.*
 - An auxiliary left-turn (AUL) treatment for northbound vehicles entering Old Winton Road.*
 - A basic left-turn (BAL) treatment for northbound vehicles entering the Oxley Highway.*

All works on the classified (State) road will need to be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and Roads and Maritime Supplements.

The developer will be required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime for any works deemed necessary on the classified (State) road. The developer will be responsible for all costs associated with the works and administration for the WAD.

- 2. The Traffic Impact Statement identifies that Old Winton Road will be upgraded to accommodate heavy vehicles of an A-Double type configuration up to a length of 36m. Whilst Roads and Maritime has no objection to this initiative, it should be noted that access for such vehicles to the Oxley Highway is currently not permissible and access would be subject to further investigation and assessment of the state road network. The largest design vehicle requiring access to the site should be identified in Council's Notice of Determination.*
- 3. The Old Winton Road and Duri-Wallamore Road intersection should be upgraded in accordance with Council's requirements as the relevant road authority. Council is responsible for setting standards determining priorities and undertaking works on unclassified (Local) roads, this includes the installation of sign posting and delineation.*

4. *Speed zoning is the responsibility of Roads and Maritime and requests are considered in accordance with the NSW Speed Zoning Guidelines.*
5. *A Construction Traffic Management Plan will need to address the impact of construction-related traffic using the Oxley Highway prior to completion of the abovementioned intersection upgrades.*
6. *The Driver Code of Conduct outlined under Table 8 and Figure 16 of the Traffic Impact Assessment should be included in Transport Management Plan(s) for the development, to be reviewed and updated regularly throughout the construction and operational phases of the development.*

Roads and Maritime highlights that the environmental impacts of any road works which are deemed ancillary to the proposed development are a matter for the Consent Authority's determination."

Comment: Council's Transport and Assets Division have reviewed the proposal and the RMS response and have provided conditions that have been provided in the Recommended Conditions of Consent.

State Environmental Planning Policy (State and Regional Development) 2011

In accordance with the provisions of the SEPP, as the proposed development has a capital investment value of more than \$5 million and Tamworth Regional Council is both the applicant and landowner and the proposal is a waste management facility that is designated development, the JRPP is the determining authority for the application.

State Environmental Planning Policy No.33 – Hazardous or Offensive Industry (SEPP 33)

SEPP 33 requires the consent authority to consider whether the proposal is a potentially hazardous or offensive industry that without the implementation of appropriate impact minimisation measures would, or potentially would, pose a significant risk in relation to the locality, to human health, life or property, or to the biophysical environment.

In this regard, hazardous industry is limited to industrial developments which after all minimisation measures proposed have been employed, the industry would still pose a significant risk. The consent authority is required to undertake a preliminary risk screening analysis to determine if the proposal is deemed, by definition, to be a potentially hazardous or offensive industry. Should it be deemed that the development is potentially hazardous, a preliminary hazard analysis would be required. The development application documentation contains sufficient analysis to conclude that a preliminary hazard analysis is not required.

State Environmental Planning Policy No.44 – Koala Habitat Protection (SEPP 44)

SEPP 44 requires the consent authority to be satisfied that the development will not have a detrimental impact on core koala habitat. An inspection of the site and a review of the development application documentation has established that the site does not contain core koala habitat.

State Environmental Planning Policy No.55 – Remediation of Land

The site of the proposed facility is located at the western end of the Tamworth Regional Airport lands. A review of historic records for the site does not suggest that contaminating land activities have been located on or adjacent to the site area.

A survey of the site was undertaken by KMH Environmental on 6 September 2016, at which time, no evidence of soil staining or vegetation dieback was present, aside from target weed control on

fence lines. Geotechnical investigations of 4 pits across the site did not identify any visual or odour indicators of contamination.

The Tamworth Regional Airport terminal is located over 2.5km from the site and the closest runway is approximately 600m to the east of the site. Currently, Tamworth Regional Council and the EPA are conducting contaminated site investigations with regard to potential chemical contamination from per- and poly-fluoroalkyl substances (PFAS), which are used in fire fighting foams. The area of investigation is in close proximity to the airport terminal and is not in proximity to the area for the proposed facility. In this regard, the EIS contains sufficient evidence to demonstrate that the site is suitable for the proposed use and remediation or further investigation of the site of the proposed facility for potential contamination is not required.

New England North West Regional Plan 2036

In accordance with the New England North West Regional Plan 2036, the facility will process organic waste from existing agribusinesses and the community. The organic waste processing will value-add to provide commercial grades of compost, which is a green industry, which is ultimately focussed at increasing the life of the existing waste management facility.

Local Environmental Plans

Tamworth Regional Local Environmental Plan 2010 (TRLEP 2010)

The subject site is zoned RU4 Primary Production Small Lots and the proposed use is defined as a 'resource recovery facility', which forms part of a broader land use definition of a 'waste management facility'. As neither a 'resource recovery facility' or a 'waste management facility' are nominated in the RU4 zone land use table as being permitted without consent or as being prohibited, the proposed use is permissible development with consent.

The objectives of the RU4 zone are:

- *"To enable sustainable primary industry and other compatible land uses.*
- *To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones."*

The locality has a diverse mix of land uses and subject to the recommended conditions to mitigate potential impacts, it is considered that the proposal is not contrary to the objectives of the RU4 zone.

The site area is located within the Flight Training Path (FTP) identified in clause 7.6 of the TRLEP 2010, which restricts the height of any building within the FTP to a maximum of 15m adjacent to the northern area of the site and 45m for the remainder of the site area. The tallest structure on the site is the receivals building, which at its highest point is 11.3m in height. Further, it is not considered that the use of the facility will be adversely affected by exposure to aircraft noise.

Clause 7.6 also requires the consent authority to be satisfied that the proposal will not affect the effective and ongoing operation of the Tamworth Regional Airport and requires the consideration of any comments provided by AirServices Australia.

Airservices Australia has reviewed the development proposal and have provided the following comments:

"Airspace Procedures

With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a maximum height of 400m (1313ft) AHD the facility and vehicles (including the 15t crane) expected to operate within, will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Tamworth Airport.

With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a maximum height of 408m (1339ft) AHD the 80t Terex crane will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Tamworth Airport.

Note that procedures not designed by Airservices at Tamworth Airport were not considered in this assessment.

CNS Facilities

The proposed composting facility site shed and canopy locations, and the mobile construction plant at the heights provided will not adversely impact the performance of any Airservices Precision/Non-Precision Nav Aids, Anemometers, HF/VHF/UHF Comms, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links.

ATC Operations

As advised, there is no night time operation proposed so there will be no floodlights as part of the composting facility development - any outdoor lights around the office and machinery shed will be shielded and are not intended to light up operational areas to allow machinery use at night. There will only be lighting for security purposes. However, should any lights be found to interfere with ATC at Tamworth Airport, you will need to install an alternative pole and light configuration to eliminate any unacceptable interference to ATC."

Development Control Plans (DCPs)

Tamworth Regional Development Control Plan 2010 (TRDCP 2010)

The TRDCP 2010 specifies development control guidelines for various types of development, including residential, commercial, industrial or subdivision and includes specific development issues such as flooding and heritage and precinct specific development controls.

None of the controls contained in the TRDCP 2010 are applicable to the proposal.

Tamworth Regional Council Section 94A (Indirect) Contributions Plan

In accordance with the provisions of the Plan, the applicant has obtained a Registered Quantity Surveyors Detailed Cost Summary Report. Council's Section 94 Planner has reviewed the Report and has advised that a contribution of \$42,219.00 is payable.

Council's Section 94 Planner has also advised that *"the overall locality is subject to recent and ongoing strategic planning relating to the Airport and the overall Glen Artney precinct and the proposal should integrate with these long term plans."*

b) The provisions of any planning agreement or draft planning agreement.

The proposal and the site are not the subject of a planning agreement or a draft planning agreement.

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

Air Quality and Odour

The Applicant has submitted an Air Quality Impact Assessment (AQIA) which provides an assessment of potential air quality and odour impacts during construction and operation.

The assessment indicates that during construction of the facility, primary emissions will be dust generated as a result of vehicle movements, material handling and windblown dust from exposed areas. These sources of dust will be temporary in nature occurring during the construction period. Vehicles and plant would also generate particulate emissions from exhausts. The Assessment identified that it was unlikely that the construction process would generate offensive odour.

The materials to be processed at the facility include food and garden organics (FOGO) and although these materials would generally be damp and not dusty, in the modelling of dust emissions, as a conservation measure, the assessment has assumed the materials are dusty.

The modelling has established that the predicted dust levels would be well below the applicable impact assessment criteria and it should be noted that the proposed sealing of Duri-Wallamore Road between Old Winton Road and the entry to the site would further reduce potential dust generated during the operation of the facility.

To predict the likely odour impact during operations, air dispersion modelling has been undertaken to calculate the level of dilution of odours emitted from the source at the point that such odour reaches surrounding sensitive receptors.

The main sources of potential odour emission from the facility are identified as the stock piles (composting process), compost handling activities and on-site water storage (leachate dams).

As existing, the Baiada Oakburn Rendering Plant (approximately 1.3km to the east-north east of the site) and three poultry farms (located approximately 1.3km, 2.1km and 2.5km from the site) have the potential to emit odour in the vicinity of the site. The Oakburn Park Speedway, when in operation, also has the potential to emit odour. It is predicted that the character of odours from these sources would be distinctly different due to the source of the odour and thus the odours are not considered cumulative.

The air dispersion modelling undertaken indicate:

- There are no significant air drainage flows in any specific direction, as the area is quite flat;
- That there will be little to no discernible odour impact at the publicly accessible areas of the Tamworth Regional Airport as well as to the 5 existing dwellings located to the south of the site in New Winton Road;
- The predicted odour level at the Baiada Oakburn Rendering Plant, located to the east-north east) for the facility alone is 3 odour units. With the proposed facility and all other existing odour sources – is 14 odour units. It is noted that the plant generates its own odour and is effectively impacted by its own odour; and
- The predicted odour level at the closest privately owned residence at 238 Old Winton Road for the facility alone is 4 odour units. With the proposed facility and all other existing odour sources – is 6 odour units.

The design of the facility incorporates odour mitigation measures and enables the choice of composting materials to minimise potential adverse odour impacts in the locality.

The facility will utilise forced aeration of stockpiles in the initial active composting stage, which promotes aerobic decomposition (producing earthy odour characters) and reduces anaerobic

processes (which produces highly unpleasant odour). The forced aeration coupled with a “biofilter” cover, to metabolise odorous molecules will provide a high level of odour control.

The facility provides a water (leachate) storage dam which will be aerated, and the aerated leachate is proposed to be reused in the initial composting stages, which will significantly reduce the risk that the leachate will become anaerobic and also reduces the organic loading in the leachate dam that treats the water before release from the site. These measures serve to reduce the potential for water being stored to become anaerobic.

The EPA criteria for acceptable levels of odour range from 2 to 7 odour units. A criterion of 7 odour units was adopted by the applicant in the initial AQIA report. However, following lodgement of the development application, the AQIA was reviewed to demonstrate compliance with 6 odour units because the EPA identified that the modelling did not consider Oakburn Park Raceway, and therefore did not account for the total potentially exposed population. There were also some concerns raised with the modelling methods.

Following submission and review of the revised AQIA, the EPA's Air and Technical Advisory Services Unit (ATASU) determined that thresholds for the different types of waste streams should be restricted because the AQIA predicted odour impacts very close to the 6 odour criterion. So, although the GTAs provide for 32,000 tonne of waste to be received from off site per year as proposed, the outcome is that the volume for each waste stream is limited. The waste streams that have been significantly reduced when compared to the volume proposed are FOGO, green waste and grease trap waste.

With these limits in place, it is considered that the facility will not generate unacceptable odour units to nearby sensitive receptors as a stand alone facility or cumulatively. Once the facility is in operation, the EPA has indicated that they will review the waste limits to determine whether any increase to a certain waste streams will have an impact.

Noise and Vibration

A Noise and Vibration Impact Assessment (NVIA) has quantified potential operational noise emissions pertaining to receipt, processing and off-site transportation. The results of the assessment demonstrate that operational noise levels comply with the relevant EPA Industrial Noise Policy criteria at all privately owned receivers during calm and prevailing meteorological conditions. The assessment indicates that the operational noise levels will be exceeded at the closest residence, which is a residence owned by Tamworth Regional Council (fronting the Oxley Highway) and is part of the Effluent Reuse Farm site.

The assessment concludes that sleep disturbance is not anticipated, as emissions from transient noise events are predicted to remain below the EPA screening criterion for sleep disturbance. In this regard, it is also noted that the proposed hours of operation of the facility are 8.00am to 4:45pm Monday to Friday and 8.00am to 12noon on Saturdays, with all site activities being performed between 7.30am to 5.30pm Monday to Friday and 8am to 5pm Saturday, with the exception of the fan/aeration system which will operate continuously as required.

The assessment also identifies that noise levels for construction works satisfy noise criteria at all receivers, as they will be carried out during standard hours of construction.

Off-site road noise emissions from product transport are predicted to satisfy relevant day road noise criteria and relative increase criteria specified in the Department of Environment, Climate Change and Water NSW (DECCW) Road Noise Policy for the operation and construction of the facility.

Based on the NVIA modelling results, compliance with the relevant EPA and sleep disturbance policies is expected and the noise environment at privately owned receivers around the facility would not see a perceptible noise increase from the project. Nonetheless, the recommended

conditions of consent contain conditions to further minimise noise emissions, which include the preparation of a Noise Management Plan and generic noise control and management techniques that may be adopted during construction to minimise noise impacts from the site.

Traffic and Transport

A Traffic Impact Assessment (TIA) has been prepared to assess potential traffic impacts from the construction and operation of the facility, with respect to the existing road network.

The site is located approximately 850m from the Oxley Highway (a classified road), accessed via Old Winton Road and Duri-Wallamore Road (both local roads). The speed limit, within the vicinity of the site, on these roads is 100km/h. The Oxley Highway and Old Winton Road are sealed roads. Old Winton Road is a single sealed carriageway that is approximately 6m in width. Duri-Wallamore Road is currently an unsealed road, but is proposed to be upgraded to a sealed road from the intersection of Duri-Wallamore Road and Old Winton Road to the site. This intersection is priority controlled with vehicles on Old Winton Road having right of way.

In the vicinity of the site, the Oxley Highway is a single sealed carriageway. At the priority controlled intersection with Old Winton Road, the Oxley Highway widens to allow through vehicles to pass vehicles turning right into Bowlers Lane. This widening has a length of approximately 120m to the south and 30m to the north of the intersection and is used as a deceleration lane into Old Winton Road (to the left).

The response received from the RMS, as discussed above, as well as the requirements of Council's Transport and Assets Division have identified upgrading works that are required to both the roadways and intersection within the vicinity of the site as well requirements for traffic management during both the construction and operational stages of the facility. These requirements are reflected in the recommended conditions of consent.

The RMS has provided crash history data for the Oxley Highway/Old Winton Road/Bowlers Lane intersection, which indicates that in the past 5 years, one crash has occurred at the intersection. The crash involved a vehicle turning left from Old Winton Road onto the Oxley Highway, colliding with a semi-trailer that was heading north on the Highway. The crash did not result in injuries or casualties.

The roads and corresponding intersections that may be affected by the proposal are:

- Oxley Highway/Old Winton Road; and
- Old Winton Road/Duri-Wallamore Road

The Safe Intersection Sight Distance (SISD) for these intersections is 262m. The SISD for Oxley Highway (both north and south) was measured at 292m and the SISD for Old Winton Road was measured at 449m, both measurements being in excess of the 262m distance (required by AUSTROADS).

With regard to traffic volumes and existing intersection operation, traffic counters were installed at the Oxley Highway/Old Winton Road/Bowlers Lane intersection for the period between Friday 10 February and Wednesday 22 February 2017 and it was determined that the AM Peak period is 8.00am to 9.00am and the PM Peak period is 4.00pm to 5.00pm.

Based on the traffic volume data collected, it was established that the Oxley Highway/Old Winton Road/Bowlers Lane intersection operates satisfactorily with minimal delays on all approaches. It was also established that traffic volumes on Old Winton Road/Duri-Wallamore Road are lower than those at the Oxley Highway/Old Winton Road/Bowlers Lane intersection and that the road network is suitable to accommodate the proposed additional volume.

The TIA indicates that approximately 30 vehicles per day (or 60 vehicle trips) would be expected between the hours of 7.30am to 5.30pm Monday to Friday and 8.00am to 5.00pm Saturday. The TIA also provides an assessment of the traffic impact of the development after full development in 2027. A standard traffic growth rate of 3% compound growth was applied to all roads to determine the 2027 traffic volumes. It was established that with the 2027 traffic volumes, the Oxley Highway/Old Winton Road/Bowlers Lane intersection is expected to continue to operate satisfactorily with minimal delays on all approaches. It was also identified that farming properties in the region would not be expected to be greatly impacted and that generally, additional movements will be generated on the Oxley Highway which already carries relatively high volumes.

The applicant has also proposed a Code of Conduct for heavy vehicle operators, which includes conduct requirements and site ingress and egress routes with respect to the existing road network. This measure is considered to be appropriate to minimise impacts.

Biodiversity

A Flora and Fauna Impact Assessment (FFIA), prepared in accordance with the relevant NSW and Commonwealth Legislation has assessed the potential ecological impacts of constructing and operating the proposed facility. The vegetation with the site area is cleared land that has been used for cropping. A White Box tree, a Cooba tree and a stag are located within the site area and are all to be retained. The assessment has established that the site does not contain any threatened species, populations or ecological communities listed under the Threatened Species Conservation Act 1995 or the Environmental Protection and Biodiversity Conservation Act 1999 and the proposed works are unlikely to have any significant effects on habitats.

Soil and Geology

The potential impacts on soil and geology have been addressed in the EIS. A geotechnical investigation was completed by East West EnviroAg Pty Ltd.

The construction of facility will include a number of soil disturbance activities including: vegetation removal of cultivated crop, clearing of land, excavation and trenching, road works, stockpiling and the use of temporary access roads. These activities have the potential to increase the erosion of soil on the site and also generate sediment laden runoff, which could affect the surrounding environment, including Bolton's Creek and the aquatic communities within it. The EIS indicates that the overall site erosion hazard is low due to the proposed disturbance areas are not excessive, the site gradient is very low and the rainfall activity of the site is also low. The proposed construction activities also have the potential to generate dust and accidental spills or peaks could lead to the contamination of soil.

The proposal will provide a variety of hardstand areas and landscaped areas, which will reduce the potential for erosion and sedimentation to have an environmental impact during operation. All leachate run-off generated by the facility will drain to a leachate dam, which will be lined with clay or a modified soil liner, which is consistent with the requirements of the NSW EPA Guidelines.

The EIS also recommends that a Construction Environmental Management Plan be prepared and implemented. The Plan should include appropriate dust control measures and erosion and sediment controls, to control stormwater and runoff to prevent increased sedimentation in Bolton's Creek, that soil disturbance be minimised and disturbed areas be stabilised as soon as practicable and that appropriate stormwater and leachate management infrastructure be provided on site and that all access roads, tracks and parking areas be sealed and hardstand pavement be provided to all areas of the site, where practicable.

During operation of the facility, the EIS recommends that an Operational Environmental Management Plan be prepared and implemented. The Plan should provide a Leachate and Stormwater Management Plan, a Spill Prevention and Response Plan, Machinery Maintenance Procedures and a Dust Control Procedure.

Appropriate conditions have been placed in the recommendation of this report to mitigate against potential impacts.

Surface Water Hydrology and Stormwater Management

The design of the proposed facility is aimed at preventing uncontrolled discharge of potentially contaminated water (including leachate and stormwater) from the site. This will be achieved by diverting leachate and stormwater via appropriately lined drainage channels (e.g. HDPE) to suitably sized and lined storage dams. The water will then be reused in the composting process as required. Stormwater from pavements and rooftops will be collected via a drainage system and diverted to a dam, which is separate to the organic receival, processing and storage areas. Runoff from processing, storage and receival areas will drain to a leachate dam and all pavements will be bunded and graded sufficiently to prevent run-on. Rainwater from the office and equipment sheds will supply onsite requirements including the wheel wash and the receival shed rainwater will be used to wash down the receivals area.

Water from the stormwater dam will be reused for dust control, wheel washing and composting process water. The stormwater will be treated by flocculation (if necessary) during operational management of the facility. A spillway that provides an overland flow to Bolton's Creek (approximately 800m to the east) is to be provided to the stormwater dam.

To minimise the volume of runoff from the site, landscaped vegetated areas will be provided to areas adjacent to building entrances and customer access points and also to the 5m setback to the Duri-Wallamore Road boundary and the side and rear setbacks of the site area.

To further minimise impacts on surface water and hydrology, the proposal includes stormwater retention facilities including roof rainwater harvesting tanks, a stormwater dam and vegetative landscaping. Therefore, it is likely that the cumulative impact to water resources in the area as a result of the proposed facility is limited.

Groundwater

The construction of the facility and the operation of the facility includes the collection and processing of organic wastes that has the potential to pollute groundwater. The leachate from the composting and organics processing is typically high in nutrients and biological oxygen demand and can be a host for bacteria and other microorganisms. As a result, the site will provide 2 separate drainage systems for leachate and stormwater.

The leachate water drainage system will include the following design criteria in accordance with the EPA Guidelines:

- A process platform to permanently incorporate a drainage layer to withstand the loading, working and removal of compost; and
- A clay or modified soil liner consisting of at least 600mm of re-compacted clay with in-situ permeability in accordance with the guidelines.

Working surfaces in the facility will be designed to ensure organics storage areas, active composting surfaces and associated access roads are constructed to prevent leachate migration to the subsoil and groundwater.

The construction of the facility involves surface excavation for preparation of handstand foundations and subgrade preparation to establish required grades for drainage and services trenching. The EIS states that the excavation depth is not likely to encounter or intercept groundwater.

During construction, to mitigate, a Construction Environmental Management Plan which includes measures to intercept groundwater during excavation is proposed. The Plan is also to include measures to be employed should groundwater unexpectedly be encountered during construction.

During the operation of the facility, it is proposed that a leachate capture and management system be designed and constructed for the processing, storage and receival areas and that a groundwater monitoring program be developed, which will include regular monitoring downslope of the leachate dam to detect potential contamination, with a comparison being made to a reference bore over time.

Wastewater Management

The facility has been designed with a system of rainwater, stormwater and leachate collection for storage, recycling and reuse and it is proposed to maximise the storage and reuse of water collected on the site. Additional external water sources include the use of reclaimed water from the effluent reuse farm from the rising main south of the site. The use of the reclaimed water will ensure that an adequate and secure water supply for the facility.

During the operation of the facility, the following mitigation measures are proposed:

- All water that comes into contact with the waste processing area will be collected, stored and managed as leachate in a leachate dam and leachate water will be used in organic waste processing. Response procedures will be prepared for situations where overtopping, breach or other failure of the leachate dam occurs. The leachate dam will be monitored to ensure adequate storage is available;
- Stormwater will be collected, stored and managed in a dam;
- A wastewater management plan that illustrates all wastewater systems on site and provides operational management procedures to ensure adequate pollution prevention procedures are in place will be prepared;
- All staff will be trained to enact pollution prevention procedures;
- An Onsite Sewerage Management System will be provided on site for toilet facilities; and
- The wheel wash facility will include a gross pollutant trap with an oil boom or similar prior to discharge of any overflow.

Aboriginal Archaeology

An Aboriginal Cultural Heritage Impact Assessment (ACHIA) was undertaken by ELA to assess the potential for any impacts on Aboriginal cultural heritage. The ACHIA was undertaken in accordance with the due diligence requirements of the NSW Office of Environment and Heritage and it did not identify any Aboriginal sites or objects on the site or within the ancillary works area. One Aboriginal heritage site was identified during the site survey (a scarred tree on Old Winton Road), however, the tree will not be impacted by the proposed works as it is located outside the site and ancillary works area.

Nonetheless, a condition of consent has been recommended to ensure that during construction, in the event that any Aboriginal objects are unearthed, works cease and further investigation be undertaken.

Non-Indigenous Heritage

A desktop review of relevant state and local heritage registers was undertaken and it was identified that there are no heritage items or areas listed on the site or within the vicinity (at least 3km) of the site. A survey of the site was also undertaken, which did not reveal any existing or relic structures or items of potential heritage significance within the site or ancillary works areas.

Landscape and Visual Amenity

The visual character of the area predominantly consists of agricultural land, rural residences and commercial industrial operations, including the Tamworth Regional Airport. The surrounding landscape has a rural character comprising cleared land and scattered rural residences, farm buildings and equipment and commercial/industrial buildings such as the nearby Baiada Oakburn Rendering Plant. Other dominant visual features include local roads and the Oxley Highway. The Tamworth Effluent Reuse Farm is located directly to the west of the site area on the opposite side of Duri-Wallamore Road.

The likely impacts on the landscape and visual amenity will be the result of the construction of a number of above ground structures, including an equipment shed, office and receival shed. The receival shed will be the highest structure on the site. The proposed widening and sealing of existing roads within the bounds of the existing road corridor will also have an impact and will require the removal of 2 trees. It is noted that the 2 trees to be removed have been previously planted for landscape purposes and the removal of the trees will not significantly impact the visual amenity of the area or significantly reduce screening.

Views to the proposed site will only be available from a limited number of areas and as the use is not inconsistent with the commercial, industrial and agricultural character of the area, it is considered that the visual amenity impact of the proposed facility is low and the facility is unlikely to have a significant or detrimental or significant visual amenity impacts for nearby residents or from public vantage points.

Nonetheless, the following measures are proposed to further reduce potential impacts and are considered adequate:

- Use of non-reflective building materials with natural tones;
- Positioning of exterior lighting to be directed downwards;
- Provision of masonry or pre-coloured metal fencing to any open work or storage areas that are visible from a public place; and
- Provision of low maintenance, drought and frost tolerant landscaping to all boundaries of the site area and to areas adjacent to building entrances and customer access points.

Bushfire

Although the site is not identified by the NSW Rural Fire Service as being bushfire prone land, the applicant has prepared a Bushfire Hazard Assessment and Management Plan (BMP), which aims to:

- Provide specific overarching strategies to guide bushfire management on the site;
- Enhance the resilience of future infrastructure associated with the facility;
- Protect human life from bushfires; and
- Mitigate the potential for ignition, spread and occurrence of bushfire within the site causing damage to infrastructure and assets.

It is considered that the management of the facility in accordance with the BMP will minimise the risk of bushfire.

d) The suitability of the site for the development

For the reasons discussed in this report and the information provided within the EIS, it is considered that the site is suitable for the proposed development on the basis that the site area is relatively flat and buffered from the Tamworth urban area. The site also has adequate access to support services and facilities in Tamworth and there are no residences in immediate proximity to the site area (the closest residence is located approximately 600m from the site area). Further, it will have

minimal impact on the landscape or visual amenity of the area and will require the removal of few trees.

The site is accessed by the local road network and is in close proximity to the Oxley Highway and is well positioned to sources of material for composting (e.g. the Baiada Oakburn Rendering Plant). The impact of the facility on agriculture is restricted to the loss of a small area of land and the facility will be co-located with other non-agricultural and infrastructure land uses, including the Tamworth Regional Airport, the Baiada Oakburn Rendering Plant, a recreation facility and the existing effluent Reuse Farm.

e) Any submissions made in accordance with the EPA Act or the Regulations.

Public Submissions

The application was advertised and adjoining and nearby landowners were notified. The public exhibition period was from Monday 19 December 2016 until Monday 6 February 2017. A total of 6 submissions have been received. The following issues have been raised:

- The facility will generate odour that will detrimentally affect nearby residences.

Comment: Based on the feedback received from residents and the EPA, the Applicant conducted further odour assessments, which included undertaking additional research on the CASP technology and best practice operation of CASP. The applicant has also sourced data from existing operational CASP facilities. The data has been used in models to refine predictions of potential odour. The outcome of the additional assessment was that the predicted odour units are reduced compared with the more conservative modelling undertaken for the EIS and concluded that the facility would not cause unacceptable levels of odour at any of the odour sensitive receptors. The GTAs issued by the EPA also place restrictions on the volume of each waste stream.

- How will the EPA be able to distinguish between odour from the Baiada Oakburn Rendering Plant and odour from the proposed facility?

Comment: The Applicant has advised that odour from the proposed facility is likely to be distinctly different from odour generated by the Baiada Oakburn Rendering Plant and will therefore not be indistinguishable nor cumulative in its affect.

- The heavy black soils of the site are reactive which make the site unsuitable for heavy vehicle movements, particularly in the wet and will also result in the loss of prime agricultural land.

Comment: All roadways and areas within the site to be accessed by heavy vehicles will be paved or hardstand areas, which will provide suitable access in wet or dry conditions. Although the facility will use of 7.8 hectares of land that is currently used for cultivation, the amount of land within the locality that remains available for agricultural pursuits is plentiful.

- The facility will be detrimental to property and superannuation values.

Comment: Although this concern is noted, impacts on the value of land at land is not a listed matter for consideration under section 79C of the Environmental Planning and Assessment Act 1979.

- An alternative site should be found.

Comment: The Applicant has advised that the proposed site was selected as the land is owned by Council, it is suitably zoned, it is adjacent to the existing Effluent Reuse Farm, it has the lowest amount of sensitive receivers and TRC owns all land within at least a 500 metre radius of the site.

Further, the proposed site is near the airport, speedway and poultry farms which create their own impacts, thus limiting the type of land uses that can be introduced.

- The facility should be located on industrial land alongside other “undesirable industries”.

Comment: The proposed facility is permissible development in the locality and will be within the vicinity of the existing effluent reuse farm, the airport, the Baiada rendering plant, poultry farms and recreational facilities and as such, it is not considered necessary or warranted to locate the proposed facility on industrial land.

- The site contains prime agricultural land. When the recycled waste water facility was proposed, the site was to be part of the waste water facility and would be used for agricultural purposes.

Comment: The site is part of the airport lands and has not been used in association with the effluent reuse farm for an extensive period. The Tamworth Regional Local Environmental Plan 2010 permits non-agricultural use in the zone as discussed previously, it is not considered that the amount of existing cultivated land to be used for the facility is excessive, nor does it significantly reduce the amount of agricultural land in the locality. The facility will cover less than 8 hectares of land and would produce recycled organic products that, at capacity could fertilise and improve the productivity of around 150,000 hectares agricultural land per year (if applied at 20m³/ha). By replacing synthetic fertilisers made from non-renewable resources with recycled nutrients, the facility will have a net positive impact on the regions agricultural sustainability and capacity.

- After hours, illegal dumping of green waste, animal carcasses and other materials will happen on the roadway in the front of the site.

Comment: The Applicant has advised that any waste dumped illegally on or near the facility boundary will be removed. The facility will be staffed six days a week reducing the opportunity for (unobserved) illegal dumping and expediting removal of illegally dumped waste. The facility will include security fencing and cameras to discourage dumping.

- Concerns that the facility is on major 'welcome point' to Tamworth.

Comment: The facility would be located over 650m from the Oxley Highway and would not be visually intrusive in the local context. The facility includes agricultural scale shed buildings and landscaping around the perimeter of the site area and has been designed to minimise odour generation.

- The proposal will result in a significant increase in the amount of traffic in the area and the additional trucks will result in wear and tear on the roads and odour from the trucks will have a negative impact.

Comment: A Traffic Impact Assessment (TIA) has been undertaken and has included an assessment of the additional trucks on the existing roads. The TIA concluded the impacts from the additional trucks will have minimal impact on the traffic function of the surrounding road network including the Oxley Highway, intersections within the vicinity of the site and the greater Tamworth Area. Road upgrades and widening will be required on the Oxley Highway, Old Winton Road and Duri-Wallamore Road to facilitate traffic movements and truck sizes. Trucks will be cleaned before they leave the facility to reduce potential for odours and prevent waste being tracked off-site. Trucks will be covered and will not stop at nearby residences.

- Although the turnoff to Old Winton Road complies with distance regulations, it is a blind and dangerous hill to the west, where many near accidents have been witnessed.

Comment: This concern is noted and as discussed previously in this report, Old Winton Road complies with sight distance requirements to minimise risk.

- Tenants of existing houses have indicated that they will leave and it will be difficult for new tenants to be found.

Comment: Whilst this concern is noted, the potential environmental and amenity impacts of the facility identify that private land in the vicinity of the facility will not be significantly affected by the proposed facility. The turn-over of tenants is not a matter for consideration in the assessment of this application.

- The proposal may result in leachate or other foreign substances polluting Bolton Creek.

Comment: An assessment of the potential impacts and contamination of water sources has been covered in the EIS and previously in this report. The facility requires more water than will fall on the site as rain. It has been designed to contain all polluted water on site (zero discharge) even in wet periods and under high intensity rainfall. This includes constructing two separate drainage systems and large dams, one for stormwater and the other for leachate. All working surfaces will be constructed from inert, low permeability materials and hard stands will be designed with a fall between 1.5% to 3%. The leachate system will comply with the EPA Guidelines. Given these risk mitigation measures the potential for leachate to pollute Bolton Creek is minimal.

- The proposed facility is too close to the airport and runway which poses a threat to aircraft and organic compost will attract wildlife, including birds, which poses a threat to planes.

Comment: AirServices Australia have reviewed the proposal and have formed the view that this facility will not pose additional risks to the existing airport. The risk of attracting birds comes from poorly managed sites that stockpile uncovered putrescible organics and release odour. It is highly unlikely that birds will be attracted to the facility due to the proposed composting technology (i.e. CASP), the quality control procedures in place and other mitigation measures outlined in this EIS. In particular, rapid blending and processing of putrescible organics, rapid formation of batches, and covering of the pasteurisation phase 1 minimises bird attraction.

- The facility poses a biosecurity risk to Australian Primary Exports (sheep and cattle) and may introduce foot and mouth disease.

Comment: An assessment of the Biosecurity risk has been undertaken and it has not identified any significant hazards with respect to the development and operation of the proposed facility with respect to impacts on the export of sheep and cattle or the entry of Foot and Mouth Disease.

- As the population of Tamworth grows, the need for the facility growth will increase, which will increase impacts.

Comment: Although this concern is noted, the facility has been designed to take up to 32,000 tonnes of materials which caters for the foreseeable increase in future demand. The development of the ORF will also extend the life of the landfill, as organic waste will be recycled as opposed to being placed in the landfill and reducing landfill capacity. As discussed throughout this report, the potential impacts can be mitigated or are considered acceptable.

- Transportation of waste from Forest Road to the site is not economic.

Comment: The facility will minimise the amount of organic waste being disposed of into landfill, extending the life of the landfill. Currently waste streams are delivered directly to the landfill site from the source/generator. More than half the organic waste currently delivered to the landfill is sourced from the western side of the Peel River and transported across. As such, the development of the facility will improve efficiencies in the transport of organic material by bringing the organic waste receipt point closer to the majority of waste sources. The applicant has also

prepared a financial and a cost benefit analysis which demonstrates that the facility is financially acceptable and would deliver a public benefit (benefit cost ratio greater than 1).

- Strongly object to the development due to biosecurity risks;
- Assessment of biosecurity risk is deficient and the facility should be located further away from intensive livestock farming enterprises;
- Claims market gardens and composting facilities in close proximity to broiler farms have been identified as ongoing source of infection, making disease difficult to eradicate. Strong concerns about the economic and bird welfare of an outbreak and associated issues;
- Proposes that raw manure is considered a biosecurity risk and any mitigation measures are unlikely to be sufficient to prevent disease transmission;
- Deceased animals and other infective material may present a biosecurity risk. Viruses may survive a long time when protected in carcasses; and
- Inadequate buffer between composting facility and chicken farms, increases biosecurity risk.

Comment: The applicant has commissioned Todoroski Air Sciences to assess the potential risk of bio-aerosol and pathogen dispersal to nearby operations associated with the proposed Tamworth Organics Recycling Facility. A review of the available studies on bio-aerosol generation at composting facilities shows that bio-aerosol from the composting facilities decline to background levels at distances between 150 to 500m downwind, where the bio-aerosols would be diluted by approximately 1,000 times less than the level at the source. Bio-aerosol generation has been studied extensively in the United Kingdom where there are significant biosecurity concerns related to foot and mouth disease. The United Kingdom Environment Agency recommends a buffer for composting facilities of 250m from receptors. The 250m buffer is based on the consensus of various studies presenting bio-aerosol concentrations declining down to background levels within 250m downwind of large composting facilities.

The air dispersion modelling conducted for the facility shows that the levels of bio-aerosols emitted by the facility would be diluted by approximately one thousand times near the site boundary, and would thus be at background levels at this distance, which ranges from approximately 200m to 300m. The results of the modelling assessment are consistent with the available research studies.

The nearby poultry farms are located approximately 1km and 2km from the site. At these distances the bio-aerosols from the facility would be diluted approximately 10,000 times or more before reaching the poultry farms. This represents an approximate 10 fold or higher margin above the dilution level needed to bring the bio-aerosols from the facility down to normal background levels, and indicates that there is sufficient separation distance between the composting facility and the farms. Thus the nearest chicken farms are far enough from the facility to not experience any discernible impact from any bio-aerosol emissions from the facility.

- Concerns that the wood waste, specifically waste that is used for nest box litter in poultry sheds will be diverted to composting rather than to the poultry farms and will have an economic impact on the poultry farms.

Comment: The wood waste that will be accepted at the facility will be a small quantity of timber from domestic sources and commercial sources. The applicant has indicated that there are no plans at this stage to include wood waste that would be otherwise used for nest box litter.

- Reverse Amenity consideration - during poultry farm clean outs it is stated there is a possibility of cross contamination to the facility and a statement that TRC accepts the risk and will in no way be concerned with the activities of the surrounding farming operations.

Comment: The applicant has indicated that they do not accept this risk.

Submissions from Government Agencies

The NSW **Environment Protection Authority** (EPA) first responded in January 2017 advising Council that it required additional information from the applicant relating to the proposal. Following receipt of additional information, on 14 September 2017 the EPA issued its General Terms of Approval (GTAs) for the proposal. In issuing the GTAs the EPA has advised Council that:

“In assessing the proposal the EPA has also identified a number of environmental issues that Tamworth Regional Council may wish to consider in its overall assessment of the application:

Odour has been identified as a major concern by a number of residents and receptors located within close proximity to the proposed development. The Oakburn Park Raceway, located at 1216 Gunnedah Road, Tamworth is owned by Tamworth Regional Council but is leased to a third party. The raceway is a recreational venue and while odour impacts at the raceway were considered in the Air Quality Impact Assessment conducted for the development, the raceway itself was not considered to be a source of population for the purposes of determining the appropriate odour criterion to apply to the proposed development. The EPA considers the raceway to be a sensitive receptor and expects that Tamworth Regional Council will manage all odour complaints from employees, visitors or users of the raceway that are attributed to the proposed development.

The EPA will be requiring Tamworth Regional Council to implement and maintain, in consultation with a recognised odour control specialist, an Air Quality and Odour Management Plan describing measures to minimise odour impacts associated with the operation. Within 12 months of commencement of operations and whenever ongoing verified odour complaints are made, Tamworth Regional Council will be required to appoint a recognised independent odour control specialist to conduct a review of the development’s operations against each of the mitigation measures and management practises described in the approved Air Quality and Odour Management Plan.

Additionally, if ongoing verified odour complaints are made, the EPA will also require Tamworth Regional Council to commission a comprehensive odour audit of the fully operational facility to confirm compliance with section 129 of the Protection of the Environment Operations Act 1997 and recommend any additional mitigation measures that may be implemented at the premises if offensive odour impacts are verified.”

The NSW **Office of Environment and Heritage** (OEH) has advised that “from the information provided it is understood that the area to be impacted is cleared land dominated by cultivated crop species, with a number of native trees present. The EIS states that the proposal may result in the removal of up to 2 native trees due to the associated road works proposed.

Based on the information provided, OEH has no specific comments to make on the proposed Organics Recycling Facility at this stage”.

The NSW **Roads and Maritime Service** (RMS) has provided the following comments to assist the consent authority in making a determination:

- “1. The Oxley Highway and Old Winton Road intersection is to be upgraded to provide the following:
- A channelised right-turn (CHR) treatment for southbound traffic.
 - A channelised right-turn (CHR) treatment for northbound traffic.
 - An auxiliary left-turn (AUL) treatment for northbound vehicles entering Old Winton Road.
 - A basic left-turn (BAL) treatment for northbound vehicles entering the Oxley Highway.

All works on the classified (State) road will need to be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and Roads and Maritime Supplements.

The development will be required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime for any works deemed necessary on the classified (State) road. The developer will be responsible for all costs associated with the works and administration for the WAD.

- 2. The Traffic Impact Statement identifies that Old Winton Road will be upgraded to accommodate heavy vehicles of an A-Double type configuration up to a length of 36m. Whilst Roads and Maritime has no objection to this initiative, it should be noted that access for such vehicles to the Oxley Highway is currently not permissible and access would be subject to further investigation and assessment of the state road network. The largest design vehicle requiring access to the site should be identified in Council's Notice of Determination.*
- 3. The Old Winton Road and Duri-Wallamore Road intersection should be upgraded in accordance with Council's requirements as the relevant road authority. Council is responsible for setting standards determining priorities and undertaking works on unclassified (Local) roads, this includes the installation of sign posting and delineation.*
- 4. Speed zoning is the responsibility of Roads and Maritime and requests are considered in accordance with the NSW Speed Zoning Guidelines.*
- 5. A Construction Traffic Management Plan will need to address the impact of construction-related traffic using the Oxley Highway prior to completion of the abovementioned intersection upgrades.*
- 6. The Driver Code of Conduct outlined under Table 8 and Figure 16 of the Traffic Impact Assessment should be included in Transport Management Plan(s) for the development, to be reviewed and updated regularly throughout the construction and operational phases of the development.*

Roads and Maritime highlights that the environmental impacts of any road works which are deemed ancillary to the proposed development are a matter for the Consent Authority's determination."

The NSW **Department of Primary Industries – Agriculture** (DPI Ag) have provided the following comments:

"Biosecurity concerns from Baiada regarding the risk from the proposed development on poultry operations (especially the breeder facilities at 2.25 kilom) is still an ongoing issue. Appendix J of the submissions report contains a brief literature review of bio-aerosol dispersion and indicates that air dispersion modelling of bio-aerosols was conducted for the project. The details of the model, however, are not provided making it difficult to make an assessment of the veracity of the findings. However it does note that the UK guideline for buffer distances is 250m to reduce impacts on sensitive receptors. Other reports in the literature refer to buffer distances of up to 500m. Although these do not address biosecurity concerns in relation to intensive livestock operations, there is no known NSW or Australian guideline for biosecurity buffer distances to composting facilities. However, some literature notes that various factors should be considered in separating any land use especially in relation to residential establishments. Whilst still a risk, the operations plans will help address this risk in various ways."

The DPI Ag recommended that the consent authority approve the following conditions to assist with risk control with respect to biosecurity:

- "1. That biosecurity risks associated with the transport and handling of unprocessed organic waste be identified and mitigation actions documented as part of the waste management plan, in line with the NSW Biosecurity Act 2015.*

2. *That pathogen reduction mitigation include testing the waste material (derived from animal excreta or offal, unsegregated municipal solid waste, sewage sludge or other wastes with a high pathogen risk) at both:*
- *The start of production of each new product type, and*
 - *Every time there is a significant change in feedstock or processing procedures.”*

The Applicant has reviewed the recommended conditions and has provided the following response with respect to proposed Condition 2 (above):

“Condition 2 requests that waste material with a high bacteriology level needs to be tested at the “start” of the process.

This is a little contradictory to industry practice in that we are required under the POEO Waste Regulation to test the finished product at the end of the processing, to ensure compliance with the relevant resource recovery order (permitting the processed waste product to be safely used in the wider environment). The resource recovery order (to be developed in consultation with the EPA) will detail the minimum processing standards and target compliance criteria for residual contaminants and bacteriology within the finished compost product. This criteria will meet or exceed the minimum requirements as set as in Australian Standard 4454 -2012: Composts, Soil Conditioners and Mulches.

Testing at the start is obviously going to indicate extremely high levels of bacteriology as the product is raw and hasn’t undergone any thermal treatment.

I would ask that this be reworded to “end of production of each”

In view of the comments made, Dot Point 2 of Condition 23 of the Recommended Conditions of Consent, provided at the end of this report, has been reworded to replace the words “The start of production of each product type, and” with “The end of production of each product type, and”.

The NSW **Department of Primary Industries – Water** (DPI Water) has provided the following comments:

- *“Information provided in the Response to Submissions (RTS) addresses gaps in the water balance and clarified water resources.*
- *Additional information on cumulative impacts has been provided.*
- *Uncertainty remains concerning groundwater levels and behavior at the site and cracking potential of the clay/soil liners and consequent potential for effluent impact on groundwater quality.*
- *A site perimeter bund was proposed in response to concerns regarding effluent spillage from flooding. A bund has the potential to impact flood flows, because the south east corner of the site is within the 1 in 100 year ARI flood zone. DPI Water recognises Council is the relevant authority for managing flood impacts at this site. It is therefore recommended that Council consider the potential flood impacts of the bund prior to determination of the application.*

While DPI Water does not require further work for approval of DA2017/0229, the following conditions are recommended to be met post approval:

- *A groundwater monitoring and response program be developed in consultation with DPI Water and implemented, as described by the proponent in the RTS.*
- *The clay/soil liners be tested for cracking potential prior to construction and routinely inspected and maintained thereafter.*
- *The perimeter bund design is to be developed in consultation with DPI Water.”*

With respect to Dot Point 3 (above), the applicant has provided the following response:

“During the construction of the proposed facility, a series of groundwater wells will be installed and an extensive groundwater monitoring program will be developed. A sampling and lab testing program of the groundwater from these wells will be implemented in strict accordance with the adopted/EPA approved groundwater monitoring program (to be developed prior to EPA license application process). This process will continue to routinely monitor groundwater impacts associated with the proposed operation and any impacts detected will be reported to the NSW EPA via the Environmental Protection License reporting process.

All clay liners will generally crack due to the inherent shrink/swell properties of clay where certain management steps are not taken. To overcome this issue in an operational impervious hardstand environment, a relatively stable moisture content of the surface clay layers is generally maintained via the presence of moisture from the composting processes. In addition to this, the depth of the compacted clay sealing layer ensures that any cracking is usually limited to a small portion of the cross sectional area of the clay layer. Further inhibiting the potential for cracking is the maintenance of the compacted clay layers density (compacted density). The Compacted density of the hardstand area is maintained by the regular operation of heavy plant on the hardstand surface. All these factors coupled together will result in a low probability of the compacted clay hardstand developing sufficient cracking to allow for measurable impacts on the underlying groundwater. The proposed facilities environmental management plan will detail required inspections and mitigation measures required in response to any changes associated with the proposed site hardstands and storage facilities. Further details on the clay linings and sealed hardstand will be provided in the final engineering design. The final design will also stipulate minimum standards the hardstand material will need to meet (compacted permeability, density, shrink/swell, particle size distribution etc). To ensure these targets/parameters are met during the construction phase, a construction management plan will be developed and implemented.”

With respect to Dot Point 4 (above), the applicant has provided the following response:

“The final engineering design will detail the proposed flood mitigation measures associated with the small portion of the site that has been identified as potentially flood prone during a 100 yr. ARI event. The bund was not proposed as a measure to prevent effluent spillage but rather a mechanism to ensure internal infrastructure (including leachate storage facilities) are not compromised by any flood waters. Discharge of leachate during major weather events (100 year ARI floods as an example) is generally permissible but impact needs to be monitored / measured as per the relevant Environmental Protection License requirements (to be issued by the NSW EPA). The final design detail for finished floor levels, presence of a perimeter bund etc.... will all be discussed to reach a satisfactory design solution with the relevant Council department before lodgement of the final design for the application of a construction certificate. Where relevant Council division would prefer low velocity flood water storage areas be maximised / maintained, raised internal storages will be constructed (relative to operational floor levels) as opposed to perimeter bunds. It is noted however that the south eastern portion of the proposed facility that is impacted by the 100yr ARI event is relatively small (with shallow water depths) and would therefore have very little measurable impact on flood water storage in the local area during a 100 yr ARI event.”

f) The public interest.

As discussed in this report, concerns raised by both the Community and Government Authorities are noted and are addressed by the proposed mitigation measures and recommended conditions of consent.

Throughout the assessment of the application, consideration has been given to whether the proposed facility is in keeping with the public interest or will be detrimental to the Tamworth Regional Community. In this regard, the facility will recycle and reduce the amount of organic waste being disposed of in landfill and will expand the lifespan of the current Forest Road Waste Management Facility, resulting in environmental and economic benefits for the Community, whilst

potential detriment impacts can be minimised by the operational management measures. A vigorous consideration of the impacts has been undertaken, with the conclusion reached that subject to the implementation of a range of mitigation measures, there will be no significant detrimental impact.

CONCLUSION

The proposed development involves the construction and use of an organic waste processing and recycling facility to be access from Duri-Wallamore Road, Westdale. The application is 'designated development' and a detailed Environmental Impact Statement (EIS) that addresses the matters required by the Environmental Planning and Assessment Regulation and the NSW Department of Planning and Environment (SEAR's), has been submitted and assessed. The proposal has attracted six letters of submission, which have raised a wide range of concerns, which have been considered in the assessment of the application and where required, concerns raised can be mitigated by the measures proposed.

Having assessed the application in accordance with the provisions of section 79C of the Environmental Planning and Assessment Act 1979 and as the EIS satisfactorily addresses the environmental impacts and the mitigation measures proposed are considered appropriate to minimise any potential detrimental impacts. Overall, it is considered that the proposed development will have an acceptable, minimal environmental impact, if constructed and operated in accordance with the conditions of consent and the license conditions of the NSW Environment Protection Authority. Accordingly, it is recommended that development consent be granted, subject to conditions.



Amanda Faulkner
Senior Development Assessment Planner



Lucy Walker
Team Leader Development Assessment

RECOMMENDED CONDITIONS OF CONSENT:

Prior to Work Commencing

1. The approved development which is the subject of this development consent must not be commenced until:
 - a) A construction certificate for the building work has been issued by the consent authority, the council (if the council is not the consent authority) or an accredited Certifier, and
 - b) The person having the benefit of the development consent has;
 - i) Appointed a Principal Certifying Authority for the building work, and
 - ii) Notified the Principal Certifying Authority that the person will carry out the building work as an owner-builder, if that is the case, and;
 - c) The principal certifying authority has, no later than 2 days before the building work commences;
 - i) Notified the consent authority and the council (if the council is not the consent authority) of his or her appointment, and
 - ii) Notified the person having the benefit of the development consent of any critical stage inspections and other inspections that are to be carried out in respect of the building work, and
 - d) The person having the benefit of the development consent, if not carrying out the work as an owner-builder, has
 - i) Appointed a principal contractor for the building work who must be the holder of a contractor license if any residential building work is involved, and
 - ii) Notified the Principal Certifying Authority of any such appointment, and
 - iii) Unless that person is the principal contractor, notified the principal contractor of any critical stage inspections and other inspections that are to be carried out in respect of the building work, and
 - iv) Give at least 2 days notice to the council of the persons intention to commence the erection of the building.
2. The applicant must ensure that a sign containing the following information is erected in a prominent position and maintained on the site at all times:
 - a) The name, address and telephone number of the principal certifying authority for the work, and
 - b) The name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
 - c) A statement that unauthorised entry to the work site is prohibited.

The sign is to be removed when the work has been completed.
3. Toilet facilities are to be provided, at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided:
 - a) Must be a standard flushing toilet, and
 - b) Must be connected to a public sewer, or

- c) If connection to a public sewer is not practicable, to an accredited sewage management facility approved by the council, or

The provision of toilet facilities in accordance with this condition must be completed before any other work is commenced.

4. The contractors engaged to undertake development on public land or infrastructure must maintain public liability insurance cover to the minimum value of \$20 million. The policy shall specifically indemnify Council from all claims arising from the execution of the works. Documentary evidence of the currency of the policy shall be provided to Council prior to the commencement of work and upon request, during the progress of the work.
5. Erosion and sediment control measures that will minimise damage to and avoid pollution of the environment are required for this development. An erosion and sediment control plan (ESCP) is to be prepared in accordance with the "Blue Book" Managing Urban Stormwater –Soils and Construction (Landcom 2004). The ESCP is to be implemented prior to the commencement of any construction works.
6. Traffic Control Plans (TCP) are to be prepared by a person with the applicable certification from Roads and Maritime Services (RMS) in accordance with AS1742.3-1996 and the RMS current version of the "Traffic Control at Worksites" manual. All TCP are to be implemented prior to the commencement of any works undertaken within the road reserve.
7. A copy of the Works Authorisation Deed (WAD) for works within the Oxley Highway and 50 metres from the intersection shall be submitted to the Principal Certifying Authority prior to work commencing, if required.

Prior to issue of a Construction Certificate

8. In accordance with Section 80A(1) of the *Environmental Planning and Assessment Act 1979* and the Tamworth Regional Council Section 94A Development Contributions Plan 2013, \$42,219.00 shall be paid to Council to cater for the increased demand for community infrastructure resulting from the development:

If the contributions are not paid within the financial year that this consent is granted, the contributions payable will be adjusted in accordance with the provisions of the Development Contributions Plan and the amount payable will be calculated on the basis of the contribution rates applicable at the time of payment in the following manner:

$$\text{\$C}_{PY} = \frac{\text{\$C}_{DC} \times \text{CPI}_{PY}}{\text{CPI}_{DC}}$$

Where:

\\$C_{PY}	Is the amount of the contribution at the date of Payment
\\$C_{DC}	Is the amount of the contribution as set out in this development consent
CPI_{PY}	Is the latest release of the Consumer Price Index (Sydney - All Groups) for the financial year at the date of Payment as published by the ABS
CPI_{DC}	Is the Consumer Price Index (Sydney - All Groups) for the financial year at the date of this development consent

The monetary contributions shall be paid to Council prior to the issue of the first Construction Certificate.

It is the professional responsibility of the Principal Certifying Authority to ensure that the monetary contributions have been paid to Council in accordance with the above timeframes.

The Tamworth Regional Council Section 94A Development Contributions Plan may be viewed at www.tamworth.nsw.gov.au or a copy may be inspected at Council's Administration Centre during normal business hours.

9. A Traffic Management Plan detailing how movements in and out of the site, external roads and the Oxley Highway during construction will be adequately managed so as not to adversely impact the safe operation of the road network (this is inclusive of pedestrian management plan and the Traffic Management Plan) shall be submitted to Council for approval. A Construction Certificate shall not be issued until written confirmation is provided from Council's Transport and Assets Division to confirm that the requirements of this condition have been satisfied.
10. An approval pursuant to section 138 of the Roads Act 1993 is required from Council to undertake works within the Oxley Highway, Old Winton Road, Bowlers Lane and Duri-Wallamore Road road reserves prior to issue of a Construction Certificate.
11. Certification shall be provided in accordance with Annexure A of Council's current version of the Engineering Design Guidelines for Subdivisions and Developments. A Construction Certificate shall not be issued until written confirmation is provided from Council's Transport and Assets Division to confirm that the requirements of this condition have been satisfied.
12. A stormwater servicing strategy for the development site shall be prepared and submitted to Council in accordance with the requirements of Part 3 of Council's current version of Engineering Design Guidelines for Subdivisions and Developments and conditions 38 to 43 of this consent. A maintenance plan for the detention system shall also be supplied. A Construction Certificate shall not be issued until written confirmation is provided from Council's Transport and Assets Division to confirm that the requirements of this condition have been satisfied
13. Detailed engineering drawings and construction specifications, specific to the works, prepared in accordance with Council's Engineering Design Guidelines for Subdivisions and Developments must be submitted. Completed 'Information to be shown on drawings' and 'Checklists' contained within Council's Engineering Design Guidelines for Subdivisions and Developments shall be submitted to ensure all works are designed and constructed in accordance with recognised and accepted standards and guidelines for the following at minimum:-
 - a) Stormwater infrastructure servicing the development;
 - b) Detention system;
 - c) Road design including a pavement design report and stormwater infrastructure design within the road reserve; and
 - d) A safety in design report in line with section 1.4.2 of the current version of Council's Engineering Design Guidelines for Subdivisions and Developments shall be submitted to and approved by Council for all external works.

All plans are to include details of the location of all existing utility services.

A Construction Certificate shall not be issued until written confirmation is provided from Council's Transport and Assets Division to confirm that the requirements of this condition have been satisfied.

14. An Inspection Test Plan (ITP) for the construction of roads and drainage infrastructure required for the development shall be submitted to Council for approval to ensure the quality of construction meets the design criteria. The ITP shall be submitted to Council's Transport and Assets Division for approval. A Construction Certificate shall not be issued until written confirmation is provided from Council's Transport and Assets Division that the requirements of this condition have been satisfied.

General

15. The development shall take place in accordance with:
 - a) The Development Application; and
 - b) The Environmental Impact Statement dated 31/11/2016 prepared by KMH Environmental, as amended by the Submissions Report dated April 2017 prepared by KMH Environmental.
16. The development must be carried out in accordance with the Development Application and accompanying plans, drawings and other documents unless otherwise as amended by conditions of this consent. Any amendment to the development or to these conditions will require the consent of the Council.
17. All proposed building, site works or property improvement indicated on the submitted plans or otherwise required under the terms of this consent shall be completed prior to occupation of the premises to ensure compliance with the provisions of the Environmental Planning and Assessment Act, 1979.
18. All building work must be carried out in accordance with the provisions of the National Construction Code (NCC).
19. All building work must be carried out in accordance with the provisions of the disability (Access to Premises - Buildings) Standards 2010.
20. Any existing State Survey Mark or Cadastral Survey Mark shall be preserved during construction and not disturbed unless authority has been obtained from the Surveyor-General in accordance with the Surveyor-General's Directions published by the NSW Land and Property Information Service. In this regard, the Principal Contractor is responsible for the protection of the mark.
21. To protect the amenity of the surrounding neighbourhood from the emission of light, any lighting on the site shall be designed so as not to cause nuisance to residences in the area or to motorists on nearby roads and to ensure no adverse impact on the amenity of the surrounding area by light overspill. All lighting shall comply with Australian Standard AS4282.
22. Biosecurity risks associated with the transport and handling of unprocessed organic waste are to be identified and mitigation actions documented as part of the Waste Management Plan, in line with the NSW Biosecurity Act 2015.
23. Pathogen reduction mitigation is to include testing the waste material (derived from animal excreta or offal, unsegregated municipal solid waste, sewage sludge or other wastes with a high pathogen risk) at both:
 - a) The end of production of each product type, and
 - b) Every time there is a significant change in feedstock or processing procedures.

General Terms of Approval

24. The development shall be carried out in accordance with the General Terms of Approval issued by the NSW Environment Protection Authority dated 14 September 2017, attached.

During Construction

General

25. The approved Traffic Management Plan shall be maintained at all times.
26. The approved Traffic Control Plans (TCP) shall be maintained at all times when work is undertaken within a dedicated road reserve.
27. A copy of the approved and certified plans, specifications and documents incorporating conditions of approval shall be kept on the site at all times and shall be readily available for perusal.
28. In the event that any contamination (or potential contamination) is discovered, work must immediately cease and the Council's Environmental Health Officer must be contacted to arrange an inspection.
29. An identification survey prepared by a Registered Surveyor is to be prepared at set out stage of the construction works to ensure that the facility is sited in accordance with the approved site plan
30. If an item suspected to be a relic, as defined by the Heritage Act 1977 is discovered on the site, all work must cease immediately and the Heritage Council notified as to the location of the relic. Work cannot proceed until the requirements of the Heritage Council have been fulfilled.
31. Erosion and sediment control measures in accordance with the approved ESCP are to be maintained by the developer at all times.
32. The footpath and/or road reserve are not to be used for construction purposes or placing of building materials (without Council's prior consent) to ensure safe and unobstructed access for pedestrians. Where necessary, application may be made by contacting Council's Transport and Assets Division.
33. If the work involved in the construction of the development is likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or involves the closure of a public place, approval from Council's Transport and Assets Division is required.
34. Any damage caused to Council infrastructure as a result of works undertaken for the development site shall be rectified by the Developer to the satisfaction of the Council so as to ensure the integrity of Council's infrastructure.
35. Any spillage of materials onto Council infrastructure, as a result of delivery or handling for this development, must be removed as soon as practicable by the developer and placed into suitable receptacles for reclamation or disposal in a manner that does not cause pollution of the environment.
36. The Developer shall ensure that dust suppression is undertaken to ensure there is no visible dust emitted due to any works associated with the development. This can be in the form of constant water spraying or other natural based proprietary dust suppressant, to ensure that dust caused by any vehicles moving in, out or within the development site does not cause a nuisance to surrounding properties.
37. Work for this development shall be limited to the following hours to prevent unreasonable disturbance to the amenity of the area:-

Monday to Friday: 7.00am to 5.00pm;

Saturday: 8.00am to 1.00pm if audible on other residential premises, otherwise 7.00am to 5.00pm;

No work to be carried out on Sunday or Public Holidays if it is audible on other residential premises.

The Developer shall be responsible to instruct and control his contractors regarding the hours of work.

Stormwater

38. All roof water and concentrated surface stormwater discharging from the proposed development site, buildings and works must be conveyed to the approved point of discharge to the satisfaction of Council. No effluent or polluted water of any type may be allowed to enter the Council's stormwater drainage system.

The approved point of discharge is defined as Bolton's Creek at the eastern boundary of Lot 2 DP1119834.

39. All new roads and/or driveway accesses required for the development shall have a pipe culvert installed over the existing table drain on Duri-Wallamore Road. The pipe culvert shall be sized to cater for a 1:5 event.
40. The clay/soil liners are to be tested for cracking potential prior to construction and routinely inspected and maintained thereafter.
41. The perimeter bund design is to be developed in consultation with the Department of Primary Industries – Water.
42. Detention of stormwater flows to predeveloped rates is required for this development to ensure flows are not increased at the existing culvert crossing on Boltons' Creek under the Oxley Highway.
43. Additionally, the stormwater discharge drainage system must be constructed to comply with the following requirements as a minimum:-
- a) All plumbing within the site must be carried out in accordance with relevant provisions of Australian Standard AS/NZS 3500.3 (as amended) Plumbing and Drainage – Stormwater Drainage;
 - b) Temporary down pipes shall be connected as soon as the roof has been covered so as to not cause a nuisance to adjoining properties;
 - c) All overland surface flow paths must have a practical and satisfactory destination with due consideration to erosion and sediment control during all stages of development. A system to prevent overland flows discharging onto adjoining properties shall be implemented;
 - d) Any interruption to the natural overland flow of stormwater drainage which could result in the disruption of amenity, or drainage or deterioration to any other property is not permitted; and
 - e) All overflow from onsite detention systems shall be collected and discharged to the approved point of discharge.

External Roads (Oxley Highway, Old Winton Road, Bowlers Lane, Duri-Wallamore Road)

44. The Oxley Highway intersection with Old Winton Road and Bowlers Lane shall be upgraded in accordance with requirements of Austroads Part 4 - Intersections and Crossings and Part

4A - Unsignalised and Signalised Intersections. The intersection shall be upgraded to facilitate a B-double (26m) design vehicle and an A-double (36m) checking vehicle.

In this regard, the intersection shall have the following requirements at a minimum:

- a) A channelised right-turn (CHR) treatment for southbound traffic (traffic heading towards Tamworth) turning onto Old Winton Road;
 - b) A channelised right turn (CHR) treatment for northbound traffic (traffic heading towards Somerton) turning onto Bowlers Lane;
 - c) An auxiliary left-turn (AUL) treatment for northbound vehicles entering Old Winton Road; and
 - d) A basic left-turn (BAL) treatment for northbound vehicles entering the Oxley Highway from Old Winton Road
45. The Old Winton Road and Duri-Wallamore Road intersection shall be upgraded in accordance with requirements of Austroads Part 4 - Intersections and Crossings and Part 4A - Unsignalised and Signalised Intersections. The intersection shall be upgraded to facilitate a B-double (26m) design vehicle and an A-double (36m) checking vehicle.
46. Old Winton Road from the Oxley Highway to Duri-Wallamore Road shall be widened to a minimum of 9 metres and full width sealed.
47. Duri-Wallamore Road from Old Winton Road to 10 metres past the extent of the last entry/egress point to the development shall be widened to a minimum of 9 metres and full width sealed.
48. Full width road construction that satisfies Road Design Standard Four (RDS4) of Council's current version of the Engineering Design Guidelines for Subdivisions and Developments is required for the widening of Old Winton Road and Duri-Wallamore Road to ensure that public road facilities are established at an appropriate standard having regard to the traffic generated by the proposed development.
49. Should any external works within any road reserve necessitate installation/extension/removal/disposal/reinstatement of any existing infrastructure or materials, all works and costs will be at the developer's expense. This condition includes costs for any required road widening where applicable.
50. For all roads and pavements associated with the development, a pavement design report that complies with the requirements of Council's current version of the Engineering Design Guidelines for Subdivisions and Developments shall be submitted to Council's Transport and Assets division for approval.
51. Where applicable any proposed speed control devices or signage utilised within all external works shall be clearly nominated and forwarded to the Local Traffic Committee for approval prior to implementation.

Internal Roads and Access

52. The internal driveways, parking areas, loading bays and vehicular turning areas are to be constructed with a base course of adequate depth to accommodate the anticipated vehicle loadings over its design life (including construction traffic) and shall be sealed with either bitumen seal, asphaltic concrete, concrete or interlocking pavers.
53. All internal driveways, parking areas and vehicle turning areas are to be designed in accordance with the requirements of AS2890.1-2004 "Parking Facilities - Off Street Parking".

54. To provide for the safety and security of employees and users of the facility, outdoor lighting in accordance with AS1158.3.1 Pedestrian Area (Category P) Lighting shall be provided to all off-street parking areas. The lighting installed must comply with AS4282 Control of Obtrusive Effects of Outdoor Lighting.
55. All parking bays shall be permanently marked out on the pavement surface and being clearly indicated by means of appropriate signs to facilitate the orderly and efficient use of onsite parking and loading/unloading facilities.
56. The direction of traffic movement within the site shall be clearly indicated by means of suitable signs and pavement markings to ensure that clear direction is provided to the drivers of vehicles entering and leaving the premises in order to facilitate the orderly and efficient use of on-site parking and driveway access and in the interest of traffic safety and convenience. In this regard all vehicles entering and exiting the site shall do so in a forward direction only.
57. The Design Vehicle for Vehicle Turning Movements for all accesses associated with this development shall be a B-double (26m). The Checking Vehicle for Vehicle Turning Movements for all accesses associated with this development shall be an A-double (36m).

Traffic and Parking

58. The new driveway(s) accessing Duri-Wallamore Road shall be constructed in accordance with Council's Engineering Guidelines for Subdivisions and Developments, and shall comply with the following:-
 - a) The alignment of the driveway(s) across the verge shall be at right angles to Duri-Wallamore Road;
 - b) The vehicle crossover shall have satisfactory clearance to any power pole or telecommunications pole, manhole cover or marker, or street tree. Any relocation, alteration or replacement required shall be in accordance with the requirements of the relevant Authority and shall be at the Developer's expense;
 - c) The driveway(s) shall be provided with a non-slip finish; and
 - d) The verge adjacent to either side of the driveway shall be established with turf and finished flush with the new driveway.

Note: The installation of the vehicle crossings is an approved structure in accordance with Section 138 of the Roads Act 1993. The ongoing maintenance and/or repair of the vehicle crossing is the responsibility of the adjoining owner in accordance with Section 142 of the Roads Act 1993.

Allotment Filling

59. Any allotment filling shall meet the requirements of AS3798-2007 (as amended) – Guidelines on Earthworks for Commercial and Residential Developments.
60. Certification of the allotment filling shall be provided by a geotechnical testing authority registered under NATA. The testing authority shall be required to certify whether the fill complies with the requirements of AS2870-2011 (as amended) – Residential Slabs and Footings – Construction, as “controlled fill

Inspections

61. It is required that a Principal Certifying Authority (PCA) be appointed to undertake all critical stage inspections as prescribed under the Environmental Planning and Assessment Regulations, 2000. The owner may appoint either the Council or an accredited certifier to be the PCA.

62. Notwithstanding hold points identified within the approved ITP, inspections are required to be carried out by Council for works as specified below:-
- a) Where applicable placement of formwork and reinforcement at the interface between the road and driveway(s) on Duri-Wallamore Road;
 - b) Pavement tests on the Oxley Highway, Old Winton Road, Bowlers Lane and Duri-Wallamore Road;
 - c) Inspection of the preparation of Oxley Highway, Old Winton Road, Bowlers Lane and Duri-Wallamore Road prior to applying a wearing surface; and
 - d) Inspection of the detention basin and associated stormwater infrastructure including stormwater pipes prior to backfill.

Please note that Council requires a minimum of 48 hours notice for inspections.

Prior to Occupation

63. The occupation or use of the whole or any part of a new building must not commence unless an occupation certificate has been issued in relation to the building or part.

Prior to issue of an Occupation Certificate

64. All works as required by these conditions of consent shall be complete.
65. A Maintenance Bond in accordance with Section 1.5.3 of the current version of Council's Engineering Design Guidelines for Subdivisions and Developments shall be paid to Council for all external works.
66. One set of approved construction drawings shall be amended to show the "Work-as-Executed" and be certified by a Registered Surveyor or a Chartered Professional Civil Engineer.

One A1 hard copy, a scanned electronic 'PDF version and an AutoCad 'dwg' version of the signed "Work-as-Executed" plans shall be submitted to Council to ensure that adequate records are maintained of community infrastructure.

67. For developments where allotment filling has been carried out, the "Work-As-Executed" plans shall indicate the contours prior to and after filling and the associated compaction test results.
68. For developments where allotment filling has been undertaken, a copy of the NATA testing authority certification for compliance to the requirements of AS2870.1 (as amended) – Residential Slabs and Footings – Construction shall be provided to Council.
69. Easements for utilities and services, including stormwater and sewer, in favour of the lots benefiting and/or Council shall be provided where services are located on private properties and/or overland flows traverse private property.
70. Landscaping is to be installed prior to the commencement of operation of the facility and is to be maintained in a good condition at all times.

Continued Operations

71. The hours of operation are restricted to between 7.30am and 5.30pm, Monday to Friday and 8am to 5pm Saturday.

72. The sealing of the driveway(s), vehicular parking, manoeuvring and loading areas is to be maintained at all times.
 73. The on-site stormwater systems shall be maintained at all times so as to ensure their effective operation for their intended purpose. In this regard the maintenance plan approved by Council shall be enforced.
 74. A groundwater monitoring and response program is to be developed in consultation with the Department of Primary Industries – Water and implemented, as described by the Applicant in the Submission Report dated April 2017.
 75. The site must be maintained in a neat and tidy condition at all times.
 76. The installed landscaping is to be maintained in a good condition at all times with diseased or dead plants being replaced as soon as possible.
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