EIS SCOPING APPLICATION

Environmental Impact Statement Scoping Application

Abstract

This purpose of this document is to provide information to support the application for an EIS scoping document by addressing the requirements of Section 9 in Form 1M.

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Introduction

Flexible Australia (Flexible) are currently undertaking a project which requires a development application for Block 11 Section 21 Hume ACT, as the land use is of a kind mentioned, under Schedule 4, Part 4.2 of the PAD Act, 2007, the development is Impact Track Assessable, as the proposed development is for "the construction of a waste management facility that is –

...(c) for the storage, treatment, disposal, processing, recycling, recovery, use or reuse of regulated waste."

The regulated waste streams and expected quantities to be accepted at the proposed development include:

- Waste derived from street sweeping activities – quantity expected per year = 4000 tonnes;
- Waste derived from stormwater maintenance activities – quantity expected per year = 10000 tonnes; and
- Waste derived from hydro excavation activities – quantity expected per year = 5400 tonnes

The proposal is therefore to be classified as Impact Track and an Environmental Impact Statement (EIS) is required as part of the Development Application.

The purpose of this document is to provide the information requested in section 9 of Form 1M to support the application for an Environmental Impact Statement (EIS) scoping document as part of the development application process.

Section 1.1

Requirement: A statement outlining the objectives of the project and why it is needed.

Project Objectives

The objective of our project is to provide a long term, sustainable resource recovery facility that will recycle both liquid and solid waste from municipal maintenance and hydro excavation activities that is currently being disposed of to landfill.

Project Justification

Currently there is an unfilled need with thousands of tonnes of waste annually being disposed of to landfill from municipal maintenance activities. The current process for disposal is expensive, time consuming, and a waste of potentially valuable resources.

This project addresses the above issues and more. Flexible aims to create a sustainable process for municipal maintenance in the territory by reducing costs, increasing efficiency, minimising waste to landfill and creating reusable materials from waste generated. Through the successful delivery of this project Flexible will be able deliver the following outcomes:

1. A reduction of waste to landfill, in line with the ACT Government's strategy for resource recovery and a carbon neutral waste sector.
2. A reduction in waste disposal costs to the ACT Government and others.
3. Creation of low cost recycled materials for reuse.
4. A quicker disposal process.

5. An increase to efficiency of municipal maintenance activities, through savings in disposal and material costs.
6. Economic and social stimulation for the local community attributed to the increases in efficiency of maintenance activities and the development of a new business to fill an unfilled need.

Section 1.2

Requirement: A description of the nature/type of project proposed by providing location map(s) of the project site(s), preliminary design drawings and satellite/aerial photographs.

Project Description

The proposed project will deliver a fully operational resource recovery facility that uses proven technology to separate reusable materials from waste. The proposed resource recovery facility will accept the following in both liquid and solid forms:

- Waste derived from street sweeping activities;
- Waste derived from stormwater maintenance activities; and
- Waste derived from hydro excavation activities.

Liquid waste will be delivered to the site by the vehicles undertaking the works that generated the waste. These vehicles are inspected and unloaded directly into the plant to commence the treatment process.

Solid waste will be delivered in tippers and unloaded into a bunded bay for inspection and then loaded into the plant to commence the treatment process. The waste is processed on receival in a bunded plant with output materials being deposited into bunded bays for inspection and reuse or transportation to the landfill.

There will be no discharge of liquid from the site other than sewer from staff amenities. The stormwater onsite will be captured, treated and reused within the operation of the facility and for irrigation of landscaping.

The site will have perimeter landscaping, colour bond fencing and the plant will be located within a bunded building

The purpose of the development application is to construct the required infrastructure to support the installation of a pre-package resource recovery plant.

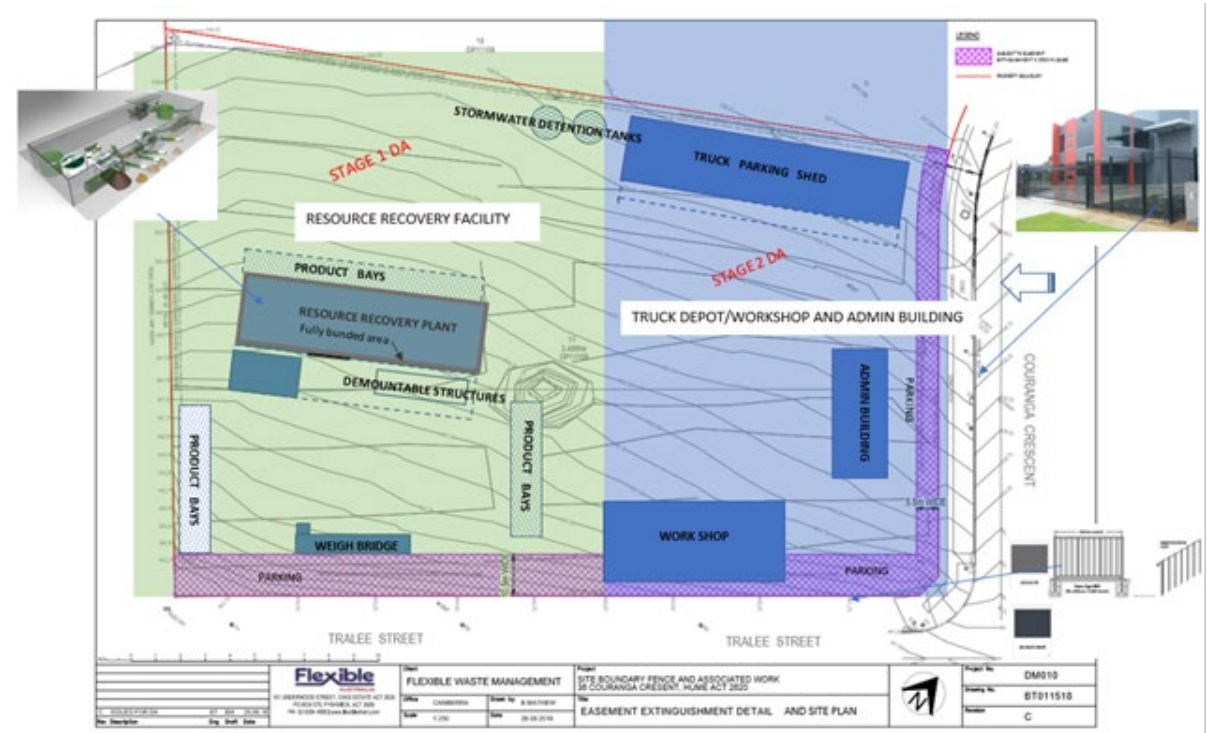
It is proposed to locate the pre-packaged plant (shown in figure 3) in a fully bunded, enclosed building located on the southern portion of Block 11 as illustrated below in figure 2. The intention is to develop the block in 2 stages. The first stage being this development application for the proposed resource recovery facility. The second stage will be subject to a future development application in merit track for a vehicle depot and administration building.

Project Location and Preliminary Design

Figure 1: Project site in estate

Figure 2: Site Locality Plan - Block 11 Section 21 Hume ACT - 36 Couranga Crescent.

Figure 3: Preliminary concept design for proposed stage 1 facility



The proposed design allows for:

- The construction of fully reinforced bunded concrete slab to house the material separation plant, office and laboratory.
- The installation of a resource recovery plant which is based on proven and reliable technology with all components compliant with Australian Standards.
- The temporary storage of recovered resources in dedicated bays.
- The installation of a two-way traffic weigh bridge.
- Landscaping, fencing and hardstand paved areas.

Figure 4: Aerial View of Block 11 showing the block has been cleared of vegetation and has been infilled with controlled fill ready for construction following minor earthworks.

Section 1.3

Requirement: A preliminary risk assessment (PRA) based on the guidance document attached to this form (not required for an ESO application).

Preliminary Risk Assessment

A Preliminary Risk Assessment (PRA) has been prepared below.

According to the 'Preparation of an Application for Scoping and Preparation of an ESO' guidelines (ACTPLA, undated), the purpose of a PRA is described as:

> *'Identifying possible impacts requires the consideration of all of the likely activities that will be involved in the construction, operation and decommissioning of the project with further consideration given to all the impacts that these activities could lead to.'*

Based on this objective, environmental risks during design, construction, and operation have been identified and assessed. Decommissioning was not considered relevant for the proposed development.

The key risks identified (rated as 'medium' or above) are highlighted below. It is not considered that these risks represent a major gap in understanding or will have a high residual risk following the application of mitigation measures.

A large proportion of the risks identified are inherent to design and construction projects associated with waste recovery facilities. These risks can be mitigated through standard management measures, such as the development and implementation of construction and operational environmental management plans, as demonstrated by the residual risks calculated in the PRA.

It is considered that the proponent has developed a thorough understanding of the environmental, heritage and engineering conditions and constraints of the proposed development on Block 11. This is demonstrated through the extent of background studies undertaken to date in addition to experience gained in contracting in the industry.

There are no significant gaps remaining in understanding the condition of environmental values in the project area and process involved.

Introduction

In an environmental risk management program, the aim is to minimise the risk of harming the environment and public thereby avoiding penalties, costly remediation and adverse stakeholder and public reaction.

Risk Management is “the systematic application of management policies, procedures, and practices to the tasks of identifying, analysing, assessing, treating and monitoring risk”.

This study is an essential part of the Project Environmental Management Plan and addresses the risks from abnormal incidents that could occur due to equipment failures, control system failures, and or human errors associated with construction and operational phases of the development as well as residual risks following mitigation measures.

A hazard is defined as a physical situation with a potential for human injury, damage to property, damage to the environment, or some combination of these. This plan is concerned with identifying specific areas of operation where improved design and implementation of procedures /restrictions could reduce the potential for hazardous incidents.

Facilities that recover useful materials from waste residues offer many benefits to society, however recycling facilities can also have adverse environmental, public health and social amenity impacts if not properly managed.

Flexible recognise that it is the responsibility of facility operators to ensure that environmental objectives and regulatory requirements are met by employing the most appropriate processing techniques to achieve the desired quality of final product. Flexible also recognise that facility operators are also responsible for ensuring that environmental safeguard measures most suitable to their particular site are implemented.

The information provided in this risk plan is aimed at providing a preliminary risk assessment in accordance with the Australian and New Zealand Standard for Risk Management - Principles and guidelines.

The purpose of the plan is twofold. Firstly, the mitigation measures identified in the plan which relate to the risks posed will be transferred to the respective environmental management plans for the development of construction and operational procedures for the facility. Secondly and given that the proposed development site has already undergone extensive environmental studies, the information gained in the process will determine any information gaps for further research to inform an environmental impact assessment process if required. For this reason, this plan also contains supplementary planning information pursuant to development approval for the proposed facility.

Risk Management Plan Objective

The objective of the plan is to ensure that strategies are put in place to ensure that the facility is constructed and operated in an environmentally sound manner by the mitigation of environmental risks associated with both the construction and operational phases of the project.

Risk Management for the Project will have specific objectives:

1. Provide guidance for the consistent application of risk identification and management practices for all project activities and processes;
2. Provide guidance as to the areas where risk is to be assessed and ensure a comprehensive understanding of risks that may impact the Project’s objectives;

3. Promote the embedding of risk management throughout the Project as part of normal business practice;
4. Support and seek to continually improve the Project's risk management practices and culture;
5. Support corporate governance by providing comprehensive, transparent and objective risk and control action disclosure; and
6. Enable informed decision-making about any trade-off between risk and reward.

Scope

This plan covers various aspects of the construction and operational of the project. In particular the plan addresses risk management issues relating to:

- Waste transport and receival
- Waste storage
- Waste processing
- Finished product storage
- Surface water runoff, treatment and reuse.
- Construction activities associated with bulk earthworks, general construction and material storage.

It is not the intention of this plan to cover the efficacy of the actual process employed to recycle the materials or the quality assurance of the final product. Separate planning will be completed in consultation with EPA to meet the environmental requirements for operation as the facility will require an environmental authorisation to operate.

References

- AS/NZS ISO 31000 Risk Management – Principles and Guidelines.
- ACT Environment Protection Act 1997;
- ACT Environment Protection Regulation 2005;
- ACT Government, WaterWays: Water Sensitive Urban Design General Code, ACT Government, July 2009;
- ACT Government Water Use and Catchment General Code, April 2009;
- ACT EPA, Environmental Guidelines for Service Station Sites and Hydrocarbon Storage, January 2014;
- Building Code of Australia;
- Department of Planning and Environment, January 2011, Hazardous Industry Planning Advisory Paper (HIPAP)4: Risk Criteria for L and Use Safety Planning;
- Department of Planning and Environment, January 2011, Hazardous Industry Planning Advisory Paper (HIPAP) 6: Hazard Analysis.

Objectives and Targets

To reduce or eliminate adverse environmental impacts through correct planning and risk management procedures.

The specific objectives of this plan are to provide details of prevention/mitigation measures for the resource recovery operation which will enable:

- Management of all significant risks to the environment; and
- The selection of risk management options in order of preference, based on avoiding risk, reducing risk and controlling risk.

Risk Control Procedures

The process of risk management involves five key steps:

1. Context establishment
2. Risk identification
3. Risk analysis
4. Risk treatment
5. Review/monitoring and reporting

Context Establishment

The Risk Management Process commences with the gathering of information about the resource recovery facility and the operational areas relating to the relevant land use. This information is used in conjunction with information collected during the environmental assessment process to develop the risk management plan.

Risk Identification

Risk identification involves identifying activities that could lead to an adverse effect on the environment, impair human health, result in a nuisance, or decrease the amenity of the region. It is necessary to consider both direct and potential causes of risk, which could cause pollution and adverse impacts to the following environmental compartments:

- Water (surface/groundwater)
- Air
- Land
- Flora & fauna
- Amenity

In terms of public health, the key issues relating to the facility are:

- Air quality
- Bush fire risk
- Traffic
- Noise
- Stormwater run off

Pollution control is the reduction of direct environmental harm or nuisance resulting from the act of collecting and processing waste. Potential pollution issues and environmental concerns include:

- Odour and gases such as methane, ammonia etc
- Dust and bio-aerosols
- Vermin and pathogen spread
- Habitat-loss and weed dispersal

- Fire and smoke
- Noise
- Litter and illegal dumping
- Surface water discharge
- Leachate and waste water

Threats to environmental compartments may arise out of features of the following plant areas:

- Waste unloading area
- Waste process
- Finished product storage
- Surface water capture/storage/reuse

Proposed pollution prevention and control measures will be considered when identifying risks, because if they fail, there will be an adverse impact on the environment and human health.

It is important to realise that risk identification and risk estimation phases are closely linked.

Risk is measured in terms of consequences and likelihood.

The likelihood of an impact occurring is best described in terms of probability. Overlaying this is the need to recognise the uncertainty that may be associated with potential impacts, particularly during the preliminary risk assessment process. Best practice dictates that where there is scientific uncertainty, a cautious approach is warranted which will in turn identify a higher level of risk.

Each identifiable potential impact can be assigned a likelihood between 'Rare' and 'Almost certain'.

Likelihood is used as a general description of probability or frequency and rated as indicated in the

In terms of consequences, risk manifestation is rated between 'Insignificant' and 'Severe'. The consequences of an impact require a degree of subjective assessment as they may consist of several elements. For the preliminary risk assessment, the elements considered are described in the following tables. Several of the elements are interrelated and a consequence is considered to be major if any one of the elements can be expected to be a major impact. A subjective decision is needed for each possible impact as to the level of consequence taking a balanced view of the impact against each of the elements.

The consequence of an impact used in the risk assessment is the reasonably foreseeable consequence. If there is a large amount of uncertainty, then the consequence may be worse.

The following consequence descriptors apply:

Rank	Probability/Likelihood	Description
1	Severe	Major widespread loss of environmental amenity and progressive irrecoverable environmental damage
2	Major	Severe loss of environmental amenity and danger of continuing environmental harm/damage

3	Moderate	Isolated but significant instances of environmental harm that might be reversed with intensive efforts
4	Minor	Minor instances of environmental harm that could be reversed
5	Insignificant	No environmental harm

Risk Matrix:

To enable the assessment of a risks, likelihood and consequence the risk matrix is used.

The following table (also known as the risk matrix) lists both the likelihood and consequence to allow a risk rating to be determined.

Likelihood	**Effect Consequence (Magnitude of Risk Effect)**				
	Insignificant (5)	**Minor (4)**	**Moderate (3)**	**Major (2)**	**Severe (1)**
Almost Certain (A)	Medium	Medium	High	High	Extreme
Likely (B)	Medium	Medium	Medium	High	Extreme
Possible (C)	Low	Medium	Medium	High	High
Unlikely (D)	Low	Low	Medium	Medium	High
Rare (E)	Low	Low	Low	Medium	Medium

Pre-Mitigation Risk Assessment

Preliminary:

(Section 9.4 – a description of the natural conservation values of the site based on the considerations listed in the "Preparation of an application for scoping and preparation of an ESO".

- Is the location important in maintaining existing processes or natural systems of the ACT? No.
- Is the location important in exhibiting unusual richness of diversity of flora, fauna or landscapes? No
- Is the location important in its possession of uncommon, rare or endangered flora, fauna, communities, natural landscapes or phenomena? No
- Is the location important in demonstrating the principal characteristics of the range of landscapes, environments or ecosystems, the attributes of which identify them as being characteristic of their class? No
- Is the location important for information contributing to a wider understanding of the ACT's natural history, by its use as a research site, teaching site, type locality, reference or benchmark site? No

Unmitigated Construction Risks

Risk ID	Identified Risk	Commentary	Likelihood	Consequences	Unmitigated Risk
C1	Unexpected Soil / Ground Water Contamination	*Groundwater over the area of the Hume industrial estate is known to not be contaminated as noted in the groundwater report issued by Cardno in the report Phase 1 Site Investigation Report, Blocks 9, 10, and 11, Section 21 Hume. The Cardno report commissioned by the LDA indicates that the site is not contaminated therefore there is the expectation that health risks are minimal during construction phase.*	Low	Moderate	Low
C2	Bush Fire	*The undeveloped site has little potential for a fire outside of arson or being a conduit for bush fire to travel through. The undeveloped site has no potential for explosion.* *This site is in a General Industrial IZ1 zone of the Territory Plan.*	Possible	Minor	Low
C3	Noise and Vibration	*Noise and Vibration* *Construction works will be carried out in work hours from 7am to 6pm Monday to Friday.*	Possible	Minor	Low

C4	Flora and Fauna – loss of habitat	*The Hume West Industrial Estate issued by the ACT Planning and Land Authority, July 2009 the site has been cleared and graded in preparation for land sale. The land is zoned for industrial use (IZ1), trees have been cleared and no flora, fauna or heritage issues have been identified.*	Low	Low	Low
C5	Contaminated stormwater release	*Sediment and Erosion from runoff during excavation works is considered the most likely risk to stormwater quality.* *To minimise the impact of contaminated stormwater on receiving waters (note: most damage is done between 30 minutes and two hours into a storm):* • *Install erosion and sediment control measures, if possible before construction commences;* • *Identify drainage lines and install control measures to handle predicted stormwater and sediment loads generated in the mini-catchment;* • *Design and install appropriate erosion and sediment run off control measures appropriate to site conditions to handle a one in two-year storm event (two-year ARI with intensity of six hours) for temporary structures, and a one-in fifty-year storm event, for permanent structures; and*	Possible	Low	Low

		• *Cover all piles and stores of soils, concrete and friable materials with tarpaulins and weight down these tarps to prevent them being blown away etc.* *Control systems that will suit this site and most other sites include:* • *Sediment interception and settling ponds;* • *Sediment filtering before being pumped out;* • *Cover all soils stocks piles;* • *Minimise the need for having soil stockpiles in the first instance;* • *Inspection and maintenance and cleaning of sediment ponds;* • *Check the ponds are large enough to take expected rainfall; and* • *Monitor water levels and bunt-off area of ponds.*			
C6	Air Quality – emissions of dust from the works.	*The two primary sources of air pollution on construction sites are:* • *Exhaust gases and/or material; and* • *Dust.* *To ensure that the impact of exhaust gas emissions is mitigated as far as is practicable, Site Management shall ensure that:*	Likely	Moderate	**High**

		• *Vehicles and machinery are fitted with appropriate emission control equipment; and* • *Vehicles and machinery are maintained frequently and serviced to the manufacturers' specifications.* *To ensure that the impact of dust is mitigated as far as is practicable, Site Management shall ensure that:* • *The generation of dust is prevented where possible (rather than controlling sources of dust);* • *Areas are not cleared of vegetation (natural dust suppression) where practicable to do so;* • *Employees and sub-contractors are informed of the need to limit vehicle speeds and drive only on designated roads / pathways;* • *The site is segmented where practicable in drier months (to allow for land rehabilitation);* • *Smooth surfaces are deep ripped, rough and cloggy to reduce wind velocity at the soil surface;* • *Wind fences (fences with shade cloth) are erected and maintained where appropriate to do so;*			

		• *The site is watered down where surface dust is not able to be avoided or controlled through the implementation of other controls; and* • *Works are programmed to avoid dust producing activities on windy days.*			
C7	Cultural Heritage Places and Objects – unplanned impacts on cultural heritage places or objects.	*There are no known Aboriginal sites or Heritage sites within the local area.* *Under the Heritage Act 2004, the Heritage Council makes recommendations to the planning and land authority about the effect of a proposed development on heritage significance.*	Unlikely	Minor	Low
C8	Social - Failure to incorporate requirements of other stakeholders	*Failure to implement requirements of the CEMP.*	Unlikely	Moderate	Low
C9	Compliance - Failure to adhere to guiding documentation and legal responsibilities and obligations	*Failure to comply with project documentation, the management plans in place, and relevant environmental legislation may lead to unforeseen impacts*	Possible	Major	**High**
C10	Public Safety - accidental harm to the public	*Manifestation of risks outlined in the CEMP*	Unlikely	Major	**High**
C11	Damage to Utilities	*Potential for damage to utilities during excavation works.*	Unlikely	Moderate	Low

C12	Soil / stormwater contamination from -fuel/oil leak from plant and machinery	*Leaking oil or fuel from construction plant /vehicles.*	Possible	Moderate	**Medium**
C13	Transport – damage to road infrastructure by construction vehicles	*While machinery will be brought to site for excavation works these are unlikely to exceed the bearing capacity of the existing roads*	Unlikely	Minor	Very Low
C14	Traffic – increased traffic, and road safety issues	*There will be an increase in road traffic during the works due to works occurring on the site and material delivery and contract workers.*	Almost Certain	Minimal	**Medium**
C15	Greenhouse Gas Emissions – project contribution to greenhouse gas emissions.	*The construction and excavation works will contribute to greenhouse gas emissions.*	Likely	Minimal	Low
C16	Visual Impact – negative impact of the works on the street and lake frontage and for surrounding sites	*The proposal will involve excavation and construction works and temp fencing which will impact on the street frontage.*	Likely	Minimal	Low
C17	Security breach/ Malicious Act	*The proposal could be the target of sabotage or vandalism.*	Possible	Moderate	Low
C18	Waste Management – disposal of excavated soil	*The project may generate waste soil / sediment from sed basin (unsuitable material) which needs removal from site.*	Likely	Minimal	Low

C19	Flooding	*The proposed development is part of a large industrial subdivision (Monaro Industrial Park) which was completed 2 years ago. The subdivision has been constructed to ensure that all lots provide adequate flood immunity during a 1% AEP flood event.*	Unlikely	Moderate	Low

Unmitigated Operational Risks

Risk ID	Identified Risk	Commentary	Likelihood	Consequences	Unmitigated Risk
O1	Spill or release of received waste streams	*Spills or release of waste residues are likely to come from:* • *Vehicle accident resulting loss of load or;* • *Human error where the load has not been sufficiently secured; and* • *Human error during unloading.*	Possible	Minimal	Low
O2	Soil contamination from waste processing / chemicals used in the process.	*The plant shall be constructed on a sealed concrete slab with bunded areas and hydraulic catchment / detention zones. Post construction and providing the integrity of the slab is maintained it will be very unlikely that any spills on the slab would be responsible for soil contamination.*	Possible	Minor	Low

O3	Odour from feedstock	*The generation of odour (not putrescible) from feedstock is possible, but not expected due to rapid processing of feedstock. However, if odour does occur it is highly unlikely it would be detectable past the site boundary.*	Possible	Minimal	Low
O4	Air Quality Dust / air emissions from organics processing and /or finished product stockpiles.	*Dust can be both a nuisance and a health concern for workers on the site and for neighbouring properties.* *Excessive dust can also adversely affect flora and fauna in nearby bushland and the amenity of the area.*	Possible	Moderate	**Medium**
O5	Egress of polluted stormwater	*Stormwater from hardstand, roof areas and disturbed areas may be released from the site during rainfall. However reduced ecosystem quality and function is unlikely due to stormwater runoff from the block and the estate being engineered with a stormwater detention dam.*	Possible	Minor	Low
O6	Excess noise/vibration from vehicles and machinery	*Noise and vibration from machinery.* *The facility shall be located within a purpose built industrial estate away from sensitive receivers. Existing noise, vibration and lighting is consistent with an industrial estate. It is understood that land at the ACT/New South Wales (NSW) border, near Tralee and South Jerrabomberra, may be rezoned as residential in the future. The*	Possible	Moderate	**Medium**

		nearest of those locations and any existing residences will be approximately 600 m from the Facility. In the ACT, the nearest potential residential receptor will be the Rose Cottage establishment located at the corner of Isabella Drive and the Monaro Highway, approximately 350 m from the Facility. *The processing plant will be open 8-10 hours a day, 5days a week. Truck movements will occur between the hours of 7:00 am and 5.30 pm Monday to Friday.*			
O7	Bushfire/neighbour fire	*In the 2014 Strategic Bushfire Management Plan, the site was considered "bushfire prone" however there is little potential fire risk other than a bushfire within the area or arson. Spread of fire to the plant and as a consequence of a bush fire in surrounding areas.* *The grazing land presents a significant threat to assets on the site in the event of a bushfire. Damage from bushfire to assets could come from three sources, Direct fire crossover, Radiant Heat, and Flying Embers.*	Possible	Moderate	**Medium**
O8	Loss of firefighting water supply/inadequate pressure	*The impact of having insufficient water/adequate water pressure to fight a fire may cause the fire to spread to other properties in the area.*	Unlikely	Minor	Low

O9	Site Fire	*The impact of a fire from the facility would have the following impacts on neighbouring land:* • *Spread of fire to neighbouring properties;* • *Spread of fire to bush land;* • *Potential spill of uncontrolled water*	Possible	Moderate	**Medium**
O10	Groundwater pollution	*Potential operational impacts on groundwater can be arbitrarily separated into those affecting water quality and those affecting water levels. The major risk to the groundwater resource in the area of the proposal would be likely to result from contamination by nutrients such as nitrogen and to a lesser extent phosphorus which may percolate to the groundwater subsequently migrating to nearby surface water bodies, reducing water quality and encouraging algal growth.*	Possible	Minimal	Low
O11	Vermin and pest animals which impact on health	*The undeveloped site has little potential to harbour large quantities of vermin, the presence of the following vermin has been detected on the site:* • *Rats* • *Rabbits*	Possible	Minimal	Low

		• *Feral Cats.* *Large quantities of waste could lead to the potential to harbour vermin particularly rats and mice. Harbouring vermin could have the following impacts on the environment and local area:* • *Vermin compete with local native wildlife for food;* • *The spread of disease;* • *Invasion of neighbouring businesses that are more sensitive to vermin;* • *Rats and mice in particular are known to chew on electrical cabling insulation which can lead to the following a Fire created by bare wires causing a short to earth / phase and also a danger to staff by exposing them to exposed live wires.*			
O12	Visual Impact/lighting	*The site lies at the South-Western end of the Hume industrial development zone which is dominated by typical industrial precinct landscapes including:* • *Large Storage sheds;* • *Truck loading areas;* • *Tanks;* • *Office complexes; and* • *Employee parking areas.*	Possible	Minimal	Low

		The areas to the south and west of the site are agricultural grazing land and government horse agistment paddocks. To the north lies further industrial blocks and the Monaro highway. To the east is industrial land already released and under development. Access to the site is through the existing developed industrial sector and is dominated by similar industrial landscapes as that proposed. The proposed development will consist of similar industrial structures of no greater height or dimensions than is already common in the industrial estate. *Light pollution can have a detrimental effect over a wide area.*			
O13	Access /Traffic	*There will be an increase in road traffic during the works due to works occurring on the site and material delivery and contract workers*.	Almost Certain	Minimal	**Medium**
O14	Process/washdown water discharging from the site and entering the regional drainage system	*Without mitigation process water/washdown water has the potential to escape form the site and enter the stormwater drainage system.*	Possible	Moderate	**Medium**
O15	Flooding	*Local flooding inundating proposed structures.*	Possible	Minor	Low

O16	Receival of unwanted waste streams	*Receipt, storage and disposal of non-complaint waste receivals*	Possible	Moderate	**Medium**

Construction Risks with Mitigation Measures

A description of measures within the proposal that seek to avoid and minimise (and as a last resort offset) impact on identified conservation value.

The tables below present the identified risks from the risks that have been assessed to have an unmitigated risk level of Medium or higher. For each risk a number of mitigation measures are discussed, resulting in a Mitigated Risk level. These measures reflect those provided in the Management Plans which have been prepared. The mitigation measures identified in these tables will be adopted during the design, construction and operation of the proposal. The majority of risks considered in the PRA were determined to be mitigated through the implementation of environmental, health and quality related management controls during works and operation of the facility.

The table below presents the identified risks from the risks that have been assessed to have an unmitigated risk level of Medium or higher associated with the construction of the proposed development.

Risk ID	Identified Risk	Unmitigated Risk	Mitigation Measures	Likelihood	Consequences	Mitigated Risk
C6	Air Quality – emissions of dust from the works.	High	Take weather conditions into account when planning work by: • Avoiding work during high wind conditions; • Use of water truck to wet down and keep soil moist during excavation and handling; • Covering loads; • Decontaminating vehicles and machinery leaving site.	Possible	Minor	Low

C9	Compliance - Failure to adhere to guiding documentation and legal responsibilities and obligations	High	Site personnel would be trained and informed of procedures and requirements on site. Regularly review and update the QMP and CEMP during the development phase as required. Site audit and inspections.	Medium	High	Low
C10	Public Safety - accidental harm to the public	High	Erection and maintenance of a secure and locked fence around the site perimeter	Unlikely	Moderate	Low
C12	Soil / stormwater contamination from -fuel/oil leak from plant and machinery	Medium	Sediment and erosion controls installed in accordance with Environment Protection Guidelines (ACT) as detailed in the CEMP. Undertaking environmental monitoring during the work including inspections of erosion and sediment control device in accordance with the CEMP. Maintain and conduct inspections of plant and machinery used onsite.	Unlikely	Moderate	Low

Operational Risks with Mitigation Measures

The table below presents the identified risks from the risks that have been assessed to have an unmitigated risk level of Medium or higher associated with the operation of the proposed development.

Risk ID	Identified Risk	Unmitigated Risk	Mitigation Measures	Likelihood	Consequences	Mitigated Risk
O4	Air Quality	Medium	Adequate watering/covering of stockpiles to avoid dust emissions.	Possible	Minor	Low

	Dust / air emissions from organics processing and /or finished product stockpiles.		Contained receival area. No stockpiling of feedstock material outside of the designated contained area. Stockpiled feedstock to be fully processed and are not going through an intensive decomposition process. No storage of stockpiles for extended durations prior to distribution or disposal.			
O6	Excess noise/vibration from vehicles and machinery	Medium	Trafficked areas will be sealed. Appropriate distances to sensitive receiver. All trucks to be fitted with efficient exhaust mufflers. Noise mitigation measures to be installed for plant and machinery as necessary.	Possible	Minor	Low
O7	Bushfire/neighbour fire	Medium	Appropriate distances to neighbouring properties. Appropriate distances to potential bushfire sources (asset protection zones). Fire Extinguishers to AS1940. Ensure that vegetation does not accumulate around infrastructure, right-of-way, and flammable materials and structures to reduce ignition potential.	Possible	Minor	Low

			Ensuring adequate water supplies are available for firefighting resources protecting personnel and equipment. Monitoring the location and status of active fires that may impact operations and be aware of high bush fire danger events that may put operations and infrastructure at risk. Be informed and ready to take action in consultation with the fire brigade if bush fires are burning near the facility.			
O9	Site Fire	Medium	Appropriate distances to neighbouring properties. Appropriate distances to potential bushfire sources (asset protection zones). Fire Extinguishers to AS1940 Trafficked areas are to be kept clean. All on site equipment and vehicles will be properly maintained. Spill kits will be kept on site, and where possible used for mopping up any spillages. Only material in accordance with specific acceptance criteria will be permitted at the facility.	Possible	Minor	Low
O13	Access /Traffic	Medium	Safe and orderly entry	Possible	Minor	Low

			All-weather access Sufficient queuing area for vehicles using the facility so that traffic flows are not interrupted. Access for emergency vehicles at all times, possibly through a separate entrance.			
O14	Process/wash down water discharging from the site and entering the regional drainage system	Medium	Process areas to be bunded to prevent any migration of leachate or run-off. Storage bays to be graded to sumps for leachate collection/processing within the facility. High level tank alarms installed in process water tanks.	Possible	Minor	Low
O16	Receival of unwanted waste streams	Medium	Only material in accordance with specific acceptance criteria will be permitted at the facility. Contractor predisposal agreements. Implementation of procedures to screen incoming feedstock. Documentation evidence of the category or type and quantity of waste stream received and weight. If during the Receive/collection stage a load is determined to be unacceptably contaminated, affected material will be	Possible	Minor	Low

			separated, contained and removed from the site and delivered to an appropriate landfill by following appropriate EPA protocol.			

In summary, the key environmental risks and associated management components for the proposed resource recovery facility on block 11 section 21 Hume are:

- Risks inherently associated with design and construction projects (bushfire, stormwater quality and amenity).
- Development and implementation of a construction environmental management plan (CEMP) and associated sub plans to minimise impacts during bulk earthworks and construction.
- Development and implementation of a operational environmental management plan (OEMP) and associated sub plans to minimise impacts during process operations.
- Ensuring best practice design (including safety, amenity and water quality).
- Ensuring compliance with noise criteria.
- Ensuring compliance with sewer discharge quality.
- Balancing bush fire management requirements with production process outcomes.
- Compliance with air quality guidelines – odour and particulates.
- Appropriately staffed during business hours to monitor the contents of organic wastes brought to the facility and to prevent unauthorised deposition of materials for recycling. Ensure that the premises be securely locked outside of business hours to prevent unauthorised access and the possibility of illegal dumping.
- Stockpile management procedures to avoid adverse environment and human health impacts.

Section 1.4 Site Natural Conservation Values

Requirement: A description of the natural conservation values of the site based on the considerations listed in the "Preparation of an application for scoping and preparation of an ESO" guideline available from the EPD website (not required for ESO applications for Schedule 4 Section 4.2 Item 11 or Section 4.3 Item 7)

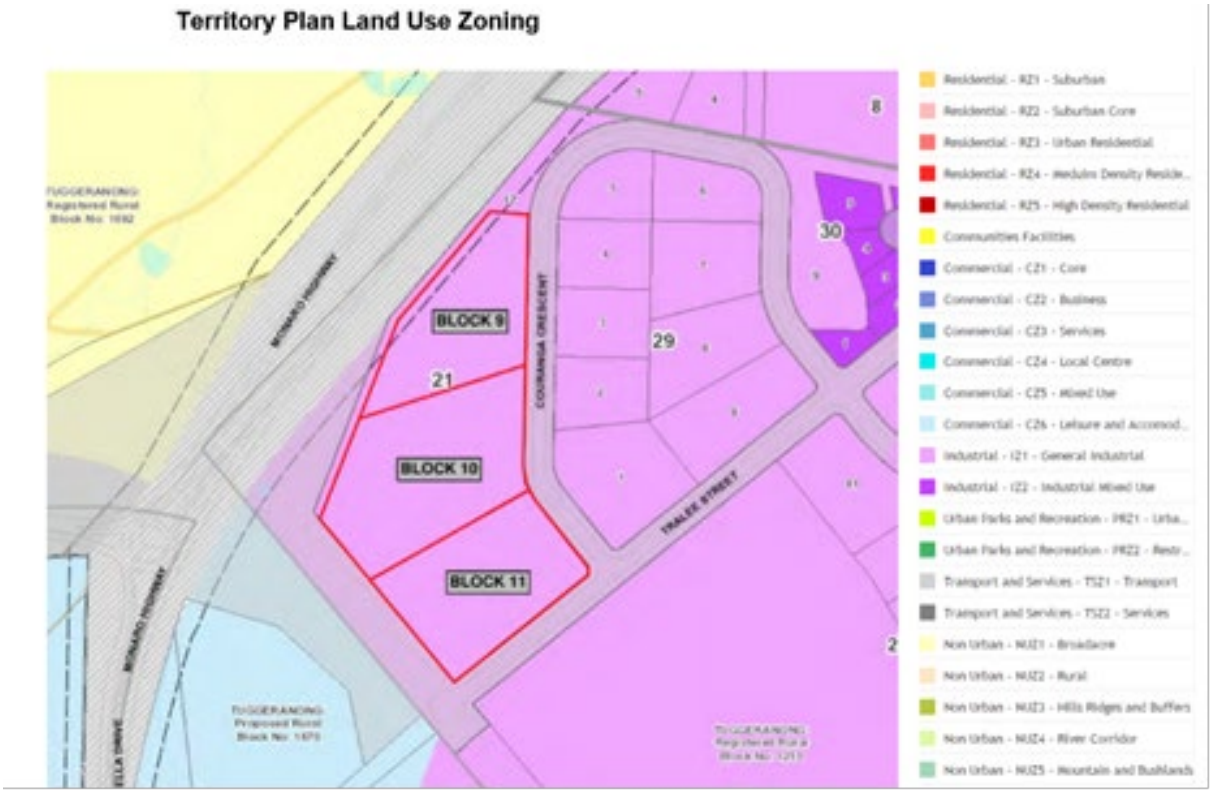
Environmental Planning Instruments and Strategy Documents:

Territory Plan (2008): Permissibility and Zone Objectives

The subject land, block 11, is zoned IZ1 – General Industry in accordance with the Territory Plan (2008).

This zoning allows for, subject to assessment, the development of a waste or recycling facility.

The objectives of zone IZ1 – General Industry, and how the proposed development complies with the objectives, are set out below:



Assessment of Consistency with Objectives of Territory Plan (2008), Zone IZ1 – General Industry

A. Support the diversification and expansion of the ACT's industrial base and employment growth.
   Comment – The proposed development would enable greater recycling within the ACT as well as creating employment and opportunity in the area.

B. Facilitate investment in a wide range of industrial and related activities, with efficient land utilisation and provision of infrastructure.
Comment - The proposed development is consistent with this objective as it is located within an existing industrial estate and will use the available land area efficiently.

C. Provide convenient access for ACT and regional residents to industrial goods, services and employment opportunities.
Comment - The proposed development is consistent with this objective as it is located within an existing industrial estate which will provide employment opportunities.

D. Make provision for transport-related businesses in locations accessible to major road, rail and air links.
Comment - N/A

E. Encourage the clustering of industrial activities according to the principles of industrial ecology.
Comment - The proposed development is consistent with this objective as it is located within an existing industrial estate with the clustering of Flexibles activities in the maintenance of infrastructure and waste management.

F. Ensure that industrial development achieves high environmental standards of cleaner production, waste disposal, noise and air quality.
Comment - The design, construction and operation of the proposed development would be utilising best practice environmental technology and operate under a comprehensive accredited environmental quality system.

G. Encourage the design and construction of industrial and commercial buildings that are energy efficient, functional and flexible.
Comment - The design and construction of the proposed development would utilise energy efficiency means such as energy efficient fixtures. The proposed buildings will be both functional and flexible.

H. Ensure that development along major approach routes and major roads meets appropriate standards of urban design.
Comment - N/A

The assessment concludes that the proposed development is consistent with the objectives of the Territory Plan (2008), IZ1 – General Industry zone.

Territory Plan – Statement of Strategic Direction

The Statement of Strategic Directions, within the Territory Plan, 2008 sets out the principles for giving effect to the main objective of the Plan. It complements and applies concurrently with the principles and policies that are set out in the National Capital Plan and includes the principles for sustainable development.

The proposed development is considered to accord with ESD principles. These have been considered regarding formulation of the project's objectives, identification and evaluation of options, and assessment of impacts and identification of mitigation measures.

In summary, the proposal:

- Would ensure that the health, diversity and productivity of the environment would be maintained for the benefit of future generations;
- Respond to the concerns expressed by other government authorities and community; and
- Minimising any additional impacts to the environment and the surrounding community.

The proposed development complies with the ACT Government's objectives to divert waste from landfill and increase the recovery of resources and recycling (ACT Waste Management Strategy 2011-25).

Natural Conservation Values of the Site:

Is the location important in maintaining existing processes or natural systems of the ACT?

The previous use of the site was agricultural grazing land until resumed by the ACT government in 2009 as part of the creation of the Hume industrial development zone.

Industrial areas lie to the east and north of the site. The western side of the site is cleared, grassed agricultural grazing land. An unnamed tributary of Jerrabomberra Creek is located 1 km from the northern boundary of the site. This unnamed creek drains northwards for approximately 3km before reaching Jerrabomberra Creek, which drains to Lake Burley Griffin.

Is the location important in exhibiting unusual richness of diversity of flora, fauna or landscapes?

Under Chapter 13 of the Nature Conservation Act 2014, the Conservator may provide advice to the planning and land authority about the effect of a proposed development about adverse environmental impacts. In a previous study (section B5 of the appendix to the Scoping Document) the Conservator of Flora and Fauna has provided advice that industrial development of the site will not impact on any listed communities or species.

Is the location important in its possession of uncommon, rare or endangered flora, fauna, communities, natural landscapes or phenomena?

The proposed facility is located within a purpose-built industrial estate which is highly disturbed. There are no threatened or endangered flora and fauna located within or near the site. As per above comment. Please see figure 5 below.

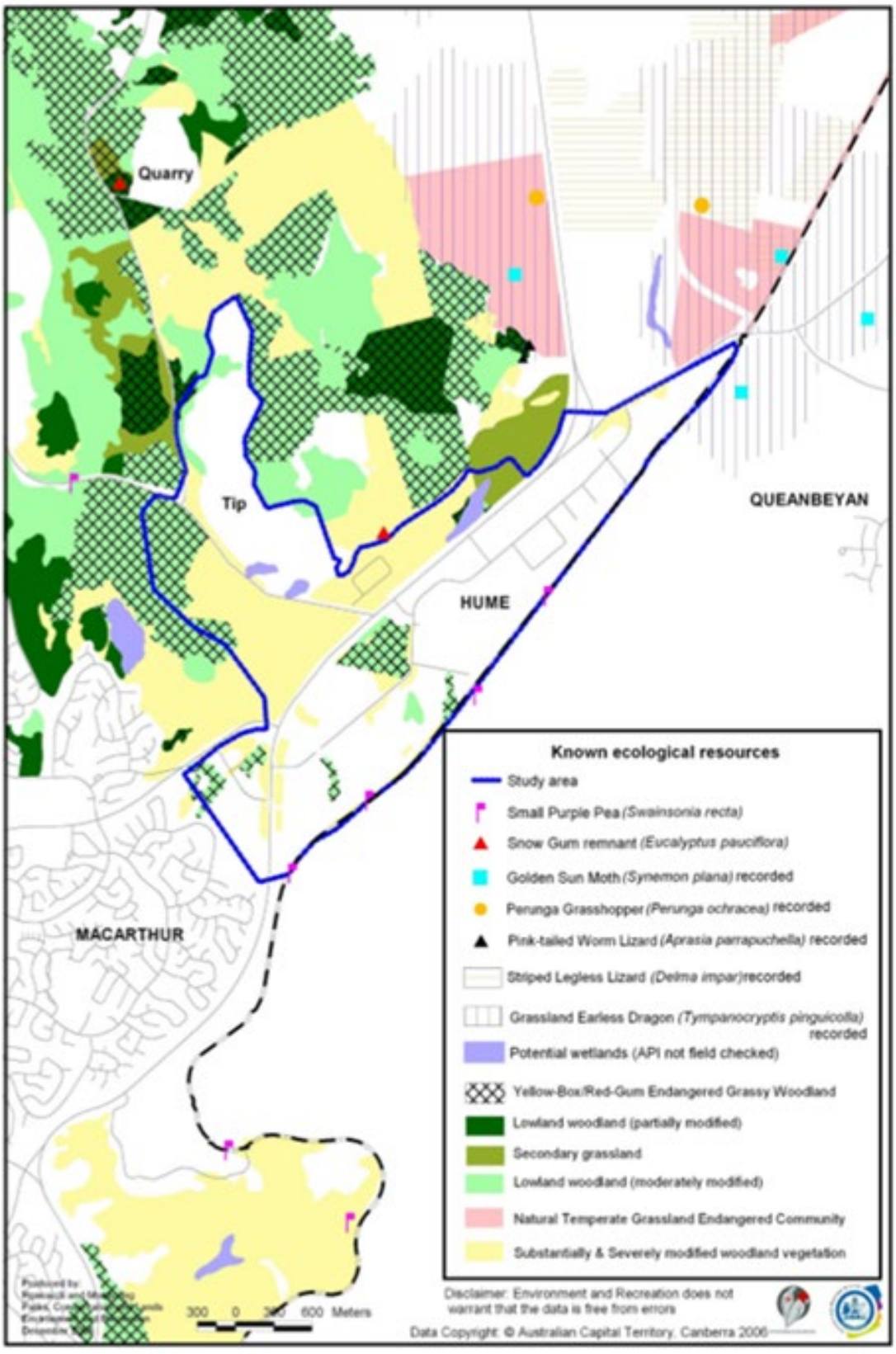
Is the location important in demonstrating the principal characteristics of the range of landscapes, environments or ecosystems, the attributes of which identify them as being characteristic of their class?

The proposal is consistent with the Canberra Spatial Plan as it occurs within an existing industrial estate. It would not encroach on any surrounding urban areas or natural and cultural environments and is consistent with the Plan's requirements of centralised employment, protection of natural and cultural environments and being located in an area that is easily accessible.

Is the location important for information contributing to a wider understanding of the ACT's natural history, by virtue of its use as a research site, teaching site, type locality, reference or benchmark site?

The site is not important in addressing this criterion. The use of the site as a resource recovery facility is appropriate for the area and is consistent with the Crown lease's purpose clause. Industrial and warehousing uses surround the site. Typical uses in the industrial subdivision include freight distribution, warehousing, manufacturing, plant and equipment hire, light industry and waste management facilities. The closest existing residential developments within the ACT are located in Macarthur and Gilmore, approximately 1.5km to the south west, and in NSW, the suburb of Jerrabomberra is approximately 2.7km east of the site. The nearest existing sensitive receptors to the site are Rose Cottage in the ACT approximately 450m and in NSW at approximately 1.5km from the site.

Figure 5: Known Ecological Resources



Section 1.5 EPBC Act Decisions

Requirement: Any decision made under the EPBC Act in relation to this proposal.

The Environmental and Biodiversity Conservation Act, 1999 (EPBC Act) outlines matters of National Environmental Significance (NES), and if any matter of NES is to be impacted, a referral for approval is to be made to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities.

Matters of NES that may be relevant to the proposed development include:

- World heritage properties;
- National heritage places;
- Wetlands of international importance (listed under the RAMSAR Convention);
- Listed threatened species and ecological communities;

A review of these matters concludes that a referral to the Commonwealth Minister for the Environment will not be required.