NON-TECHNICAL SUMMARY

1.0 Introduction

Advanced Environmental Solutions Ltd is applying to the Environmental Protection Agency (EPA) for a review of the Industrial Emissions Licence (Register Number: W0104-03) for its existing waste management facility at Cappincur, Tullamore, County Offaly. The objective of the review is to increase the amount of waste that can be accepted annually from 60,000 tonnes to 80,000 tonnes.

2.0 Planning & Licensing History

The site was initially developed as a waste management facility in 1994. In 2002 AES acquired the site following which improvement works were carried out. In 2004, the first Waste Licence was granted by the Environmental Protection Agency (EPA). In 2009 a revised Waste Licence was granted for changes to the boundary and the upgrade of the drainage and wastewater treatment system, and these works were carried out in 2012.

In 2013 planning permission was granted for an increase in the annual waste acceptance rate to 60,000 tonnes and the current Waste Licence was issued in February 2014. In December 2015, the EPA amended the Licence to bring it into conformity with the requirements of the EU Industrial Emissions Directive.

AES applied to Offaly County Council for planning permission to increase the annual waste acceptance limit. An Environmental Impact Assessment Report was submitted with the planning application and a copy accompanies this licence review application.

The site and proposed activities do not come under the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2006.

3.0 Existing Installation

The installation is located in the Cappincur Industrial Estate approximately 2 km east of Tullamore Town. It covers 1.16 hectares (ha) and is occupied by a Weighbridge, Process Building, Office, Welfare Building, Wheel Wash and paved open yards.

The installation accepts residual household (black bin) waste, construction and demolition waste and mixed dry recyclable materials (paper, cardboard, plastic etc). The operational hours are 6am to midnight Monday to Saturday and 7am to 11pm on Sundays.

All waste processing is carried out inside the Process Building. The black bin waste is bulked up and transferred to other sites for further treatment. The construction and demolition waste is sorted to remove large items and the materials are then sent to other sites for further treatment/recovery. The mixed dry recyclables are manually and mechanically separated, then baled. The bales are stored in the open yard.

4.0 Proposed Changes

It is proposed to increase the amount of waste that can be accepted from 60,000 tonnes per year to 80,000 tonnes. There will be no changes to the types of waste accepted and the proposed increase will not require either the construction of new buildings, or the provision of new equipment.

5.0 Classes of Activity

The classes of activities as listed in the First Schedule of the EPA Act as amended will be.

Class	Description
11.1	The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.
11.4 (b)	Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, (other than activities to which the Urban Water Treatment Regulations 2001 (SI No. 254 of 2001) apply): • Pre-treatment of waste for incineration or co-incineration.

6.0 BAT / BREF Documents

AES assessed proposed development against the BAT Conclusions in the following guidance documents:

- Reference Document on Best Available Techniques for the Waste Treatments Industries August 2006
- Reference Document on Best Available Techniques for Energy Efficiency February 2009
- Reference Document on Best Available Techniques from Storage

An evaluation of how the facility will comply with the BAT Conclusions on Waste Treatment along with an analysis of the proposed development against the BAT Conclusions on Storage has been completed.

7.0 Waste Management Policies

The proposed changes are consistent with European Union, national and regional waste management policies and plans, the objective of which is to maximise the recovery/recycling of waste.

8.0 Raw & Auxiliary Materials and Energy Use

Operations involve the consumption of electricity, water, oils, coolants and electricity. The estimated quantities used in 2015 and 2016 are presented in Table 1.

Table 1 Estimates of Resources Used (2015-2016)

Resources	2015	2016
Light fuel oil	535,560 l	526,380 litres
Electricity	305.43 MWh	413.38 MWh

The increase in electricity usage was due to additional metering drum and infeed conveyor installed during mid-2015 and operation of evening shift ran for the duration of 2016.

9.0 Sources of Emissions

The actual and potential emissions from the installation are:

- Noise from plant and equipment used to process the wastes and the delivery/collection vehicles.
- Dust from waste processing and vehicle movements on yards during dry weather.
- Rainwater run-off from the yards and building roofs.
- Vehicle exhaust gases from the delivery and collection vehicles.
- Odours from the biodegradable wastes.

10.0 Site Location

The installation is located in the Cappincur Industrial Estate approximately 2 km east of Tullamore Town. The Tullamore-Daingean Road runs along the northern site boundary and the County Council Dog Pound is directly south. The lands to the north and south are in agricultural use. To the west is the N52 National Secondary Route. The closest private house is approximately 125m to the north-west.

11.0 Existing Environment, Potential Impacts, Mitigation and Residual Impacts

11.1 *Climate*

The climate in the area is mild and wet, with the prevailing wind from the south west. The acceptance and processing of the additional wastes will result in an increase in energy (diesel and electricity) consumption associated with their transport and processing, with a consequent increase in greenhouse gas emissions. All new developments that give rise to extra greenhouse gases are considered to have a negative effect on climate.

The current mitigation measures include the use of energy efficient equipment, energy audits and the implementation of an energy management plan.

The proposed development will, in conjunction with current operations have an on-going, imperceptible, negative impact on climate.

11.2 Soils and Geology

The site is entirely covered by buildings and concrete paving. The subsoils in the locality are glacial tills that are more than 9m thick. The underlying bedrock is a dark limestone and shale.

The proposed change does not require either the construction of any new buildings, or any ground disturbance. There are not and will not be any direct or indirect emissions to ground. There is the potential for leaks from the above ground oil and wastewater storage tanks, the underground sump in the Process Building and leaks from the foul sewer. The potential pathways to the soil and bedrock for contaminants released at the ground surface are infiltration in areas where the paving has been damaged, and leaks from the surface water drains.

The current mitigation measures include the provision of impermeable paving across the operational areas; the inspection and repair of the paved areas; the provision and maintenance of spill containment for the above ground oil storage and wastewater holding tanks; the routine inspection and survey of the surface water and foul water drains; the adoption of an emergency response procedure, and staff training on appropriate spill response actions.

The proposed development will, in conjunction with the current operations, have no residual impact on the soils and geology.

11.3 Water

The facility is in the catchment of the Tullamore River, which is a tributary of the River Brosna. Prior to Q3 2017 rain water run-off from the site enters a man-made drain at the southern site boundary that joins the Tullamore River approximately 750 m to the south of the site. Since Q3 2017 the rainwater run-off has been collected and sent off site for treatment. The bedrock beneath the site is classified as a Locally Important Aquifer (Lm), being generally

moderately productive. The aquifer vulnerability to pollution from sources at the ground surface is Moderate.

The site is entirely covered with buildings and paving, which effectively prevents groundwater recharge. The direction of groundwater flow is expected to be to the south, towards the Tullamore River.

The proposed change does not require any excavations, construction works or alteration to the existing foul and surface water drainage systems. There are no current direct or indirect emissions to ground and the proposed development will not result in any new emissions.

There is the potential for leaks from the above ground oil and wastewater storage tanks, the underground sump in the Process Building and leaks from the foul sewer. The potential pathways to off-site water courses is the surface water drainage system. The pathways to groundwater for contaminants released at the ground surface are infiltration through damaged paving and leaks from the storm water drains.

The current mitigation measures include the provision of a series of oil interceptors on the surface water drains; the cessation of the rainwater run-off discharge to the man-made drain; the inspection and repair of the paved areas; impermeable paving across the operational areas; the provision and maintenance of spill containment for the above ground oil storage and wastewater holding tanks; the routine inspection and survey of the surface water and foul water drains; the adoption of an emergency response procedure, and staff training on appropriate spill response actions.

The proposed changes will, in conjunction with the current operation, have no impact on the water quality in Tullamore River and will have no impact on groundwater.

11.4 Ecology

There are no habitats of ecological importance within the site boundary and the site is not in or close to a Special Area of Conservation (SAC), Special Protected Areas (SPA) or National Heritage Areas (NHA). The closest protected area is the Charleville Wood SAC, which is 3 km south-west of the site. The Tullamore River is a tributary of the River Brosna that flows through Charleville Wood.

The proposed development does not require any construction works and will not result in any loss of habitats either within, or outside the site boundary. It will not result in any new or additional emissions to the drain/Tullamore River and will not require any changes to the current operational hours.

The current mitigation measures include the provision of a series of oil interceptors on the storm drains; the provision and maintenance of spill containment for the above ground oil storage and wastewater holding tanks; the routine inspection and survey of the surface water and foul water drains; the adoption of an emergency response procedure and staff training on appropriate spill response actions.

The increase in the waste acceptance rate will have no impact on the ecosystems within the site boundary and will not give rise to disturbance in the habitats outside the boundary. A Natura Impact Statement has been prepared and it concludes that the proposed development will have no impact on any Natura 2000 Sites.

11.5 Air Quality

The facility is in the west of the Cappincur Industrial Estate. The Tullamore-Daingean Road runs along the northern site boundary and the Dog Pound is directly south. The lands to the north and south are in agricultural use. To the west is the N52 National Secondary Route. The closest private house is approximately 125m to the north-west. The EPA ambient air quality databases indicate the air quality in the vicinity of the site is good.

The impacts on air quality associated with the operation of waste management sites that accept and process biodegradable waste in general include odours, particulates (dust) and exhaust gases from vehicles.

The mitigation measures currently applied include handling the waste inside the Process Building; regular inspection and cleaning of waste handling areas; provision of a misting system inside the building and dust curtains at the entrances; provision of an active dust extraction system over the picking line; cleaning yards using a road sweeper and damping them down in dry weather, and a 20km/h speed limit on all vehicle movements inside the site boundary.

The proposed development, in conjunction with the current operations, will have an on-going slight, negative impact on air quality associated with increase in vehicle exhaust gases.

11.6 Noise

The facility is in the west of the Cappincur Industrial Estate. The Tullamore-Daingean Road runs along the northern site boundary and to the west is the N52 National Secondary Route. The closest private house is approximately 125m to the north-west.

The sources of noise are the waste transport vehicles, picking line operation and baling, vehicles moving the bales and loading of the waste transport trucks.

The current mitigation measures include all waste processing is carried out inside the Process Building; site staff are instructed to avoid unnecessary revving of machinery, turn off equipment / plant when not in use, and limit the hours of activities that are likely to give high noise level emissions.

The proposed development will, in conjunction with the current operations, have an on-going, imperceptible, negative impact.

11.7 Landscape

The installation is an area classed in the Offaly County Development Plan as being of Low Sensitivity, which largely encompasses the county's main urban and farming areas. The 'Grand Canal Corridor', which is classed as being of High Sensitivity, is approximately 350m to the north.

The site is a relatively moderately scaled waste management facility and has an industrial appearance. It is visible from the Tullamore-Daingean Road frontage, but the other buildings in the Cappincur Estate screen it from view from further east along the road. It is visible from approaches to the Cappincur Roundabout and from the access road to the Dog Pound.

Existing mitigation measures include the provision of net screens on the palisade fencing that surrounds the site and planning along the eastern boundary.

The development will, in conjunction with current operations, have a neutral impact on the existing landscape character and visual amenity.

11.8 Traffic

The site is immediately south of the Tullamore to Daingean Road (L2025). The L2025 intersects the N52 approximately 80 m west of the site entrance at the Cappincur Roundabout. The designated speed limit on the N52 is 100km/h and it has a two-way single carriageway. The L2025 is a two-way single carriageway and has a designated speed limit of 50 km/h on the Tullamore side of the Roundabout and a 60 km/h designation on the site access side.

Vehicles arrive and depart from the site entrance (Junction 1) from the west via the Cappincur Roundabout and east along the L-2025. Junction 1's minor arm, has a dual access function, servicing the AES facility and the Dog Pound.

The Cappincur Roundabout (Junction 2), is a 4 arm junction. The major arm (N52) links to the M6 to the north and the N80 to the south. The L-2025 east leads towards the site and on to Ballinagar, with the L-2025west leading to Tullamore Town Centre.

The traffic movements vary for both light vehicles and heavy vehicles. The morning peak hour light vehicle movements at Junction 2 are higher in September than in June. At Junction 1, the heavy vehicle movements are higher in June.

The visibility splays at the existing site access will be maintained and kept free of obstacles that could obstruct the view. The existing signs on the palisade fencing will be removed. Stop and Yield signs and associated road markings will be erected to clarify priority access.

The development will result in extra traffic movements, but the local road network and junctions have the capacity to accommodate the increase. The development will have an on-going, slight, negative impact on the road network.

11.9 Cultural Heritage

There is no record of any archaeological feature, protected structure, or cultural heritage feature within the site boundary and it is not in a designated Architectural Conservation Area. As the proposed development will not have any impact on any archaeological, architectural or cultural feature, mitigation measures are not required. The development will not have any impact on any archaeological, architectural or cultural heritage features.

11.10 Population and Human Health

The facility is in an area zoned for industrial use. The Tullamore-Daingean Road runs along the northern site boundary, and the Councils' Dog Pound is directly to the south. The lands to the north and south are in agricultural use. To the west of the access road to the Dog Pound is the N52. The closest residential dwellings are approximately 125m to the north-west, a private dwelling 145m to the north-east and a small residential estate ca 300m to the west.

The mitigation measures currently applied include handling the waste inside the Process Building; regular inspection and cleaning of waste handling areas; provision of a misting system inside the building and dust curtains at the entrances; provision of an active dust extraction system over the picking line; cleaning yards using a road sweeper and damping them down in dry weather and a 20km/h speed limit on all vehicle movements inside the site boundary. Furthermore the current Licence makes provision for the installation of an odour control system comprising the extraction and treatment of air from the Process Building, if this is considered necessary.

AES has completed an Environmental Liability Risk Assessment (ELRA) that assesses the environmental effects, including impacts on humans, of incidents and accidents.

The local road network and junctions have the capacity to accommodate the movement of the additional 20,000 tonnes of waste without causing congestion.

The proposed development, will in conjunction with current operations, have an on-going imperceptible, negative impact on human beings associated with noise emissions and traffic movements.

11.11 Material Assets

The facility is in an area zoned for industrial use. The Tullamore-Daingean Road runs along the northern site boundary, and the Council's Dog Pound is directly south. The lands to the north and south are in agricultural use. To the west of the access road for the Dog Pound is the N52. The nearest listed amenity area is the Grand Canal, which is approximately 320 m to the north of the site.

AES implements the nuisance control measures specified in the EPA Licence and also applies resource consumption control measures to minimise usage.

The development will have not have any adverse impact on amenity values and socio-economic activities in the locality. It will have a slight negative impact in relation to the consumption of fossil fuels. It will have an on-going slight positive socio-economic and economic benefit associated with increasing recycling rates and maintaining local employment levels.

12.0 Proposed technology and other techniques to prevent or eliminate, or where this is not practicable, limit, reduce or abate emissions from the installation

The design and method of operation of the existing facility are based on the requirements of the European Commission's Reference Document on Best Available Techniques for the Waste Treatment Industries 2006 (BREF), which specifies the Best Available Techniques (BAT) for Waste Management Facilities.

The current licence specifies the manner in which the facility must operate so as to ensure that pollution and or nuisance to neighbours and the general public is prevented. The licence conditions require the site management team to have the appropriate training and qualifications; they specify the types of wastes and processes that can be carried out; stipulate how wastes and raw materials that have the potential to cause pollution are handled and stored; describe the control measures that must be applied to prevent nuisance, for example odour and dust control, and require appropriate emergency response procedures to be in place.

13.0 Measures to Comply with Waste Management Hierarchy

The existing operation and the proposed development are consistent with the national and regional waste policy objectives, which are based on the Waste Management Hierarchy, as they contribute to the national pre-treatment capacity to get the maximum value from the waste, and to the achievement and maintenance of national and regional recycling and recovery targets.

14.0 BAT

Condition 2.2 of the current Licence requires AES to develop and implement an Environmental Management System (EMS) for the facility. The installation is accredited to ISO 14001 EMS which requires AES to prepare operational control procedures for all waste activities, and ensure that staff are provided with the appropriate skills and training to perform their assigned functions.

AES has assessed the proposed development against the BAT Conclusions and recommendations on best practice in the following guidance documents:

- Reference Document on Best Available Techniques for the Waste Treatments Industries August 2006;
- Reference Document on Best Available Techniques for Energy Efficiency February 2009;
- Reference Document on Best Available Techniques for Emissions from Storage 2006.

15.0 Abnormal Operating Conditions

AES has adopted a General Emergency Response and a Fire and Explosion Response Procedures (ERP). The ERP specifies roles, responsibilities and actions required to deal quickly and efficiently with an emergency. AES has also completed an Accident Impact Assessment to evaluate the environmental effects of major accidents that may occur.

16.0 Avoidance of the Risk of Environmental Pollution due to Closure of the Facility

AES has prepared an Environmental Liability Risk Assessment (ELRA) and Decommissioning Management Plan (DMP) for the facility and these, along with a proposal for Financial Provision, have been submitted to the Agency.

17.0 Environmental Monitoring

AES currently conducts storm water, groundwater, noise emissions, air emissions and dust monitoring.

18.0 Measures to Comply with an Environmental Quality Standard

The emission limit values set in the current Licence are based on achieving compliance with the relevant EQS. The measures also effectively minimise the risk of pollution over long distances.

The environmental quality standards that are relevant to the overall assessment for the licence application are those specified in:

- European Communities Environmental Objectives (Surface Water) Regulations S.I. No 272 of 2009;
- European Communities Environmental Objectives (Groundwater) Regulations S.I. No 9 of 2010;
- Air Quality Standards Regulations (S.I. No 271 of 2002);
- Directive 2008/50 EC on ambient air quality and cleaner air for Europe.

19.0 Measures to comply with Council Directive 80/68/EEC and 2006/118/EC in relation to the protection of groundwater.

There are no direct discharges to groundwater and the entire licensed area will be covered by buildings and paved yards.

20.0 The Main Alternatives to the Proposed Technology, Techniques and Measures

The installation is a key element of the AES waste management infrastructure in the Eastern-Midlands Region. The facility is specifically designed and has established use for waste activities and it has the capacity to accommodate the proposed increase in annual waste inputs. The features that render it suitable for the proposed development are:

- Existing authorisations to accept and process solid non-hazardous waste;
- Readily accessible location for AES's existing and target customer base;
- Can accommodate the proposed increase in wastes without the need for any additional buildings, alterations to the existing infrastructure, or the provision of additional waste treatment equipment;
- Existing ground conditions (soil type/geology/hydrology) and distances from sensitive environmental receptors minimise the risk of unexpected emissions give rise to pollution.

The only alternative to the proposed development is to construct a new waste management facility at a different location. This would require the acquisition of land, the construction of new waste processing buildings and supporting infrastructure (offices, maintenance workshops, weighbridge) and the provision of new site services (surface water, foul water, power, water supply and security).

The development of a new facility offers no environmental advantages compared to the proposed expansion of waste acceptance rates at the existing facility, which has an established commercial/industrial use.