Storage Risk Assessment

Standard Facility:	Waste Operation: Storage of 02 01 03 (plant-tissue waste) and 02 01 07 (wastes from forestry)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Storage
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Low**	Permitted waste types are non hazardous. Damp wastes are unlikely to generate dusts. Wastes will not be composted on site so bioareosol production will be minimal. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP	Very low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low

Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. Loss of amenity. Danger of ingestion by grazing animals. These wastes are not associated with litter and will be subject to WAC/WAP	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes and treatment activities are not likely to release significant odour. Plant wastes may have a moderate odour potetnial, but waste types are not considered to have high odour potential	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear or feel noise and vibration from the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Very Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces of scavenging animals. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity, no food waste in the permitted waste	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Insect pests not normally associated with permitted activity or waste types	As above	Low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are non-hazardous so any waste washed off site will not cause harm to human health or the environment. Permitted waste is approved for spreading to land under standard rules	An AMP will be implemented and maintained as part of the EMS	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are non-hazardous and do not contain any sharps.	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non hazardous and non reactive and are typically damp so fire risk is low. Site is secure	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	Permitted waste types are non hazardous and non reactive, risk of accidental combustion of waste is low	As above. Permitted activities do not include the burning of waste. Wastes will be kept away from sources of ignition. Please refer to FPP	Very Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Permitted waste types are non hazardous. The wastes may be associated with a small amount of leachate formation	The waste is stackable, and will be stored on an impermeable surface with contained on-site drainage collection	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained drainage.	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP, FPP and FEMP	Low

Storage Risk Assessment

Standard Facility:	Waste Operation: Storage of 02 02 03 (materials unsuitable for consumption or processing)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Storage
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Low**	Permitted waste types tend to be sludges or 'wet' materials and so unlikely to generate dusts or release bioaerosols. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP	Very low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	As above. Local residents often sensitive to dust	As above	Very low

Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter as they are produced from controlled manufacturing processes and will be subject to WAC/WAP	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes may have some potential to cause odour as they are derived from preparation and processing of meat, fish and other foods of animal origin	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that couldfeeel vibrations or hear noise which may arise from the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces from wild animals. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity, although there may be some food waste in the permitted waste. Waste type is assessed and permitted for application to land under standard rules.	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Insect pests may be attracted to waste types	As above	Low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are non-hazardous so any waste washed off site will not cause harm to human health or the environment. Permitted waste is approved for spreading to land under standard rules	An AMP will be implemented and maintained as part of the EMS. The site is bunded.	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled manufacturing and do not contain any sharps or physical contaminants	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non hazardous andnon reactive and are typically 'wet' materials so fire risk is low.	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	Permitted waste types are non hazardous and non reactive, risk of accidental combustion of waste is negligible	As above. Permitted activities do not include the burning of waste.	Very Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Permitted waste types are non hazardous. The wastes tend to be moist stackable materials, sludges or liquids and will be stockpiled in a bunded area or stored in tanks as required.	The waste will be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in tanks and transferred using enclosed pipework	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Stackable waste will be stored on an impermenable surface with contained on site drainage collections. Non-stackable wastes will be stored in tanks and transferred using enclosed pipe work.	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water features or areas.	The waste is to be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in designated tanks with enclosed pipework	Very low

Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Storage Risk Assessment

Standard Facility:	Waste Operation: Storage of 03 01 01 (waste bark & cork), 03 01 05 (untreated sawdust and wood shavings other than those mentioned in 03 01 04 only) & 03 03 01 (waste bark & wood, pulp from virgin timber)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Storage
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**

Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types are non hazardous. Damp wastes are unlikely to generate dusts. Wastes will not be composted on site so bioareosol production will be minimal. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP. Friable wastes, susceptible to wind blow, will be stored inside the building to minimise potential dust migration	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter and will be subject to WAC/WAP	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes and treatment activities are not likely to release significant odour. Odour potential from woody wastes are considered low to negligible	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could feel any vibration of hear any noise attributed to the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces from wild animlas. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity, no food waste in the permitted waste	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Insect pests not normally associated with permitted activity or waste types	As above	Low

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are non-hazardous so any waste washed off site will not cause harm to human health or the environment. Permitted waste is approved for spreading to land under standard rules	The site is bunded. An AMP will be implemented and maintained as part of the EMS	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are non-hazardous and do not contain any sharps etc	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non hazardous and non reactive so fire risk is low. Site is secure.	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Medium**	Permitted waste types are non hazardous and non reactive, risk of accidental combustion of waste is low due to likely moisture content	As above. Permitted activities do not include the burning of waste. Wastes will be kept away from sources of ignition	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Permitted waste types are non hazardous. The wastes may be associated with a small amount of leachate formation although quantities will be negligible	The waste types are stackable, and are to be stored on an impermeable surface with contained on-site drainage collection.	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low

Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained on-site drainage collections	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Storage Risk Assessment

Standard Facility:	Waste Operation: Storage of 04 02 21 (wastes from unprocessed biodegradable textile fibres only) & 04 02 22 (wastes from processed biodegradable textile fibres only)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Storage
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Low**	Permitted waste types tend to be sludges or 'wet' materials and so unlikely to generate dusts or release bioaerosols. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP	Very low

Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter as they are produced from controlled manufacturing processes and will be subject to WAC/WAP	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes unlikely to be odorous	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that couldfeeel vibration of hear noise arising from the activities	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces from wild animals. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity or biodegradable textile wastes. Waste type permitted for application to land under standard rules	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Insect pests unlikely to be attracted to waste types	As above	Low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are non-hazardous so any waste washed off site will not cause harm to human health or the environment. Permitted waste is approved for spreading to land under standard rules	An AMP will be implemented and maintained as part of the EMS. The site is bunded	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled manufacturing and do not contain any sharps or physical contaminants	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non hazardous and are typically 'wet' materials so fire risk is low	Thes site is bunded with sealed drains. As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Medium**	Permitted waste types are non hazardous, risk of accidental combustion of waste is considered low	As above. Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Permitted waste types are non hazardous. The wastes tend to be moist stackable materials, sludges or liquids and will be stockpiled in a bunded area or stored in tanks as required.	The waste will be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in tanks and transferred using enclosed pipework	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Stackable waste will be stored on an impermenable surface with contained on site drainage collections. Non-stackable wastes will be stored in tanks	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is to be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in designated tanks with enclosed pipework	Very low

Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Storage Risk Assessment

Standard Facility:	Waste Operation: Storage of 17 08 02 (gypsum-based construction materials other than those mentioned in 17 08 01)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	23-Oct-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Storage
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste type (on arrival) tends to be coarsely ground/broken plasterboard gypsum. The material may become dusty when material is broken up and processed. The material may encourage growth of moulds and fungi if wet and under long term storage. There is potential for dust exposure to anyone working on or close to the site. The site is isolated and far from residents.	Please refer to the FEMP	Low

Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Medium	**Medium**	Local residents often sensitive to dust	As above	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter as they are produced from controlled manufacturing processes and will be subject to WAC/WAP	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes are not odorous. If gypsum is mixed with organic wastes or liquids it can produce hydrogen sulphide gas which is a dangerous and odorous gas. All waste will be stored seperately to prevent gaseous emissions or production	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could feel vibration or hear noise arising from the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces from wild animals. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity or gypsum as it does not contain any organic material	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Insect pests unlikely to be attracted to waste types	As above	Low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are non-hazardous so any waste washed off site will not cause harm to human health or the environment. Processed plasterboard (ground and with backing material removed - 19 12 12) is approved for spreading to land under standard rules	An AMP will be implemented and maintained as part of the EMS. The site is bunded	Very low

Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are pre sorted at source to remove impurities. Incoming Wastes will be subject to WAP and WAC	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non hazardous and non combustible so fire risk is low.	Thes site is bunded with sealed drains. As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Medium**	Permitted waste types are non hazardous, risk of accidental combustion of waste is considered low	As above. Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Permitted waste types are non hazardous. The waste will be stockpiled in a bunded area.	The waste will be stored on an impermeable surface with contained on-site drainage collection.	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Stackable waste will be stored on an impermenable surface with contained on site drainage collections.	Low

Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is to be stored on an impermeable surface with contained on-site drainage collection.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Treatment & Storage Risk Assessment

Standard Facility:	Waste Operation: Physical treatment and storage of 06 02 01* (Calcium hydroxide - limited to the production of return water, slurry and cake from BOC Ltd, Hobson Way, Stallingborough, Grimsby, DN41 8DZ produced as a by-product from gas production
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical, biological and chemical treatment and storage
Parameter 2	Permitted waste type - hazardous waste suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <10,000 tonnes throughput per annum
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system or in tanks

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Low**	Permitted waste types have a negigible potential to produce bio aerosols and particulate matter due to moisture content (40% in cake, 85-95% in slurry and 99% in return water) and negligible organic matter. Wastes have high pH (which is key factor for liming benefit). There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP. Release of high pH dust is not considered a risk due to high moisture content of the wastes	Very low

Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter as they are produced from controlled manufacturing processes with QP procedures and will be subject to WAC/WAP	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes have negligible potential to cause odour due to the lack of organic matter and the chemical manufacturing process from which they are derived	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibrations from the activities	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Permitted waste types are unlikely to attract scavenging animals as they don't contain any organic matter or litter or waste food	Please refer to the FEMP	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	As above	As above	Very low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types will be stored securely, either in stockpiles on an impermeable surface or in tanks. Wastes types permitted for spreading on land under bespoke mobile plant permit (EB3205CY V002) held by 4Recycling Ltd. Any waste washed off site will not cause harm to human health or the environment, it is similar in properties to agricultural lime	An AMP will be implemented and maintained as part of the EMS	Very low

Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled manufacturing and do not contain any sharps or physical contaminants	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non combustible, including the cake (40% moisture content)	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	As above, risk of accidental combustion of waste is negligible	As above. Permitted activities do not include the burning of waste.	Very Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Waste types are liquid and solid lime materials and have high pH and EC contents. Wastes do not contain notable concentrations of organic matter or N/P so risks associated with eutrophication would be low	The waste will be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in tanks and transferred using enclosed pipework	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Stackable waste will be stored on an impermenable surface with contained on site drainage collections. Non-stackable wastes will be stored in tanks	Low

Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is to be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in designated tanks with enclosed pipework	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Treatment & Storage Risk Assessment

Standard Facility:	Waste Operation: Treatment (conditioning with water) and storage of 10 01 01 (poultry litter ash, paper sludge ash and ash from wood chip boilers only), 10 13 12* (cement kiln dusts and by-pass dust only) & 10 13 13 (cement kiln dusts and by-pass dust other than those mentioned in 10 13 12 only)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Treatment (conditioning with water) and storage
Parameter 2	Permitted waste types - hazardous and non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <10,000 tonnes throughput per annum for hazardous wastes, <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations:	FEMP - Fugitive Emissions Management Plan	FPP - Fire Prevention Plan	OMP - Odour Management Plan	EMS - Environmental Management System	AMP - Accident Management Plan	WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)
Receptor	Source	Harm	Pathway	Probability of exposure	Conseq-uence	Magnitude of risk	Justification for magnitude	Risk management
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?

Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types are likely to generate dusts as they are typically fine, friable and dry materials. Wastes do not have an organic matter content and will not be composted on site, so bioareosol production will be negligible. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP. Wastes prior to conditioing will be stored in silos. Post conditioinng they will bes tored indoors or in covered bays.
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter and will be subject to WAC/WAP	As above
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Medium	**Low**	Permitted wastes and treatment activities are not likely to release notable odour. Waste types are not considered to have high odour potential	Please refer to the OMP
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibration from the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity, no food waste or organic fraction in the permitted wastes	Please refer to the FEMP
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Low	**Low**	As above. Insect pests not normally associated with permitted activity or waste types	As above

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are approved for application to land under standard rules. Wastes will be stored on an impermeable surface with contained drainage or in sealed silos. Any waste washed off site will not cause harm to human health or the environment.	An AMP will be implemented and maintained as part of the EMS
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled manufacturing processes or from combustion of virgin timber and do not contain any sharps etc	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non combustible	As above. Please refer to the FPP
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	As above, risk of accidental combustion of waste is low	As above. Permitted activities do not include the burning of waste.
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	The wastes are highly alkaline and are used for liming benefits for soil. They also contain high quantities of potash. Conditioning of these wastes with water is an exothermic reaction, and therefore there is no leachate or runoff produced from the process as it is lost as steam. The treatment activitiy will occur indoors.	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection. Wastes do not contain organic matter, high N or P.
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above

Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained on site drainage collections
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP

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Residual risk
What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).

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Treatment & Storage Risk Assessment

Standard Facility:	Waste Operation: Treatment (physical, chemical, biological and/or liming) and storage of 17 05 06 (dredging spoil other than those mentioned in 17 05 05), 19 02 06 (sludges from physico/chemical treatment other than those mentioned in 19 02 05), 19 13 04 (sludges from soil remediation other than those mentioned in 19 13 03) & 19 13 06 (sludges from ground water remediation other than those in 19 13 05)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	23-Oct-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical, chemical, biological treatment and/or lime treatment and storage
Parameter 2	Permitted waste type - non-hazardous waste suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system or in tanks

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Medium	Low	Permitted waste types have a negligible potential to produce bio aerosols and particulate matter due to being 'wet' materials. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP.	Very low

Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above. The liming process will be done indoors through specilaist purpose built equipment.	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter, they are dredged or dug out materials which are predominantly mineral-based depending on the location/source being dredged. These wastes will be subject to WAC/WAP. Suppliier agreements willbe in place to ensure litter associated with dredging spoil is removed at source.	As above	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes have moderate potential to cause odour due to the predominantly mineral-based nature of them	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibrations from the activities	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Permitted waste types are unlikely to attract scavenging animals as they don't contain any organic matter or litter or waste food	Please refer to the FEMP	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	As above	As above	Very low

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types will be stored securely, either in stockpiles on an impermeable surface (bunded where necessary) or in tanks depending if they are stackable. Any waste washed off site will not cause harm to human health or the environment, as they are predominantly mineral-based although specific properties are dependent on source being dredged or dug out. Each waste stream will be individually analysed and assessed against WAC/WAP prior to import	An AMP will be implemented and maintained as part of the EMS. The site is bunded.	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are mineral-based and should not contain any sharps or physical contaminants. Materials will be subject to WAC/WAP. Supplier agreements will be in place to ensure any physical contamination from dredging is removed at source.	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non combustible due to moisture content	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	As above, risk of accidental combustion of waste is negligible	As above. Permitted activities do not include the burning of waste.	Very Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Waste types are predominantly mineral based and may have suspended solids within them.	The waste will be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in tanks and transferred using enclosed pipework	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low

Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Stackable waste will be stored on an impermenable surface with contained on site drainage collections. Non-stackable wastes will be stored in tanks	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is to be stored on an impermeable surface with contained on-site drainage collection. Non-stackable wastes will be stored in designated tanks with enclosed pipework	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Treatment & Storage Risk Assessment

Standard Facility:	Waste Operation: Physical treatment and storage of 19 02 04* (cement kiln dust and by-pass dust from cement kilns conditioned with water only)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical treatment and storage
Parameter 2	Permitted waste types - hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <10,000 tonnes throughput per annum
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations:	FEMP - Fugitive Emissions Management Plan	FPP - Fire Prevention Plan	OMP - Odour Management Plan	EMS - Environmental Management System	AMP - Accident Management Plan	WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types are likely to generate dusts as they are typically fine, friable and dry materials. Wastes do not have an organic matter content and will not be composted on site, so bioareosol production will be negligible. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP.

Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Medium**	Local residents often sensitive to dust	As above
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter and will be subject to WAC/WAP	As above
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Medium	**Low**	Permitted wastes and treatment activities are not likely to release notable odour. Waste types are not considered to have high odour potential	Please refer to the OMP
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibration from the activities	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces from wild animals. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity, no food waste or organic fraction in the permitted wastes	Please refer to the FEMP
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Low	**Low**	As above. Insect pests not normally associated with permitted activity or waste types	As above
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are approved for application to land under standard rules. Wastes will be stored on an impermeable surface with contained drainage but any waste washed off site will not cause harm to human health or the environment.	An AMP will be implemented and maintained as part of the EMS. The site is bunded.
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled cement manufacturing processes and do not contain any sharps etc	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non combustible	As above. Please refer to the FPP
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	As above, risk of accidental combustion of waste is low	As above. Permitted activities do not include the burning of waste.
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	The wastes are highly alkaline and are used for liming benefits for soil. They also contain high quantities of potash. The wastes have a high dry matter content and do not produce leachate	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection. Wastes do not contain organic matter, high N or P.
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained on site drainage collections
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP

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Residual risk
What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
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Treatment & Storage Risk Assessment

Standard Facility:	Waste Operation: Physical treatment (screening) and storage of: 19 05 03 (off specification compost, compost from source segregated biodegradeable waste only, compost from source segregated biodegradeable waste and sludges from the treatment of urban waste water only)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical treatment and storage
Parameter 2	Permitted waste types - non-hazardous waste suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**

Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types are unlikely to generate dusts as they are typically damp with moisture contents of over 30%. Wastes will be composted prior to arrival on site. There may be residual bio areosols remaining. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents.	Please refer to the FEMP. Treatment (screening) will be carried out indoors. Post treatment they will be stored indoors or in covered bays.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	medium	Low	**Medium**	Local residents often sensitive to litter. These wastes will be subject to WAC/WAP. Treatment will be carried out indoors	As above	Low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted wastes and treatment activities may give rise to some odour.	Please refer to the OMP. Treatment will occur indoors	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibration from the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Medium	Medium	**Medium**	Scavenging birds and animals not normally associated with permitted activity. Treatment undertaken indoors storage indoors or in covered bays	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Medium	Low	**Low**	As above. Insect pests not normally associated with permitted activity or waste types	As above	Medium

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are approved for application to land under standard rules. Wastes will be stored on an impermeable surface with contained drainage . Any waste washed off site will not cause harm to human health or the environment.	An AMP will be implemented and maintained as part of the EMS	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled processes. Incoming wastes will be subject to WAC/WAP	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types have a low combustibility	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Mediium**	As above, risk of accidental combustion of waste is low. Monitoring of stockpile temperatures to assess for self heating is part of the FPP	As above. Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	The wastes will potentially generate some runoff. The treatment activitiy will occur indoors.	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low

Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained on site drainage collections	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Treatment Risk Assessment

Standard Facility:	Waste Operation: Physical treatment and storage of 19 08 01 (screenings)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	23-Oct-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical treatment and storage
Parameter 2	Permitted waste type - non-hazardous waste
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system or in tanks

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Medium	**Low**	Permitted waste types have a moderately low potential to produce bio aerosols as they will not be composted on site. Screenings have a high moisture content and do not give rise to dust. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low

Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Medium	**Medium**	Local residents often sensitive to litter. Waste type can contain physical contamination as it is a coarse oversize produced from waste water treatment. Activity permits physical treatment to screen contaminants out. These wastes will be subject to WAC/WAP	As above	Low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	High	**Medium**	Permitted wastes can be odorous as they are coarse oversize from waste water treatment	Please refer to the OMP	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibrations from the activities	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Medium	Medium	**Medium**	Permitted waste types may attract scavenging animals as it is an oversize fraction produced from a waste water treatment process that may have residual organic material remaining.	Treatment and storage will occur indoors. Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	As above	As above	Low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types will be stored securely in stockpiles on an impermeable surface (bunded where necessary). Any waste washed off site will not cause significant harm to human health or the environment, physical contaminants and inerts will be screened out as part of the treatment process. Each waste stream will be individually analysed and assessed against WAC/WAP prior to import	An AMP will be implemented and maintained as part of the EMS	Very low

Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types may contain physical contaminants, which is why the physical treatment is proposed. Materials will be subject to WAC/WAP	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are non combustible due to moisture content	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Medium**	As above, risk of accidental combustion of waste is negligible	As above. Permitted activities do not include the burning of waste.	Very Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	Waste types do contain organic residues from sewage treatment and potentially some physical contamination pre-screening. As wastes are moist, they may produce some leachate when stockpiled	The waste will be stored on an impermeable surface with contained on-site drainage collection	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Stackable waste will be stored on an impermenable surface with contained on site drainage collections.	Low

Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is to be stored on an impermeable surface with contained on-site drainage collection.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low

Treatment Risk Assessment

Standard Facility:	Waste Operation: Physical treatment of 19 01 18 (biochar manufactured from untreated wood and plant matter from agriculture, horticulture and forestry, or from vegetable waste from food preparation and processing)
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	19-Sep-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical treatment
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)
Receptor	Source	Harm	Pathway	Probability of exposure	Conseq-uence	Magnitude of risk	Justification for magnitude	Risk management
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types may generate some dusts if a particular stream is fine, friable and/or very dry. Wastes will not be composted so bioareosol production will be negligible. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents	Please refer to the FEMP.

Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter. These wastes are not associated with litter and will be subject to WAC/WAP	As above
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Medium	**Low**	Permitted wastes and treatment activities are not likely to release notable odour. Waste types are not considered to have high odour potential	Please refer to the OMP
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibration from the activities	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces from wild animals. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Scavenging birds and animals not normally associated with permitted activity, the waste stream is biochar and is rich in carbon rather than soil organic matter	Please refer to the FEMP
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Low	**Low**	As above. Insect pests not normally associated with permitted activity or waste types	As above
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are approved for application to land under standard rules. Wastes will be stored on an impermeable surface with contained drainage but any waste washed off site will not cause harm to human health or the environment.	An AMP will be implemented and maintained as part of the EMS. The site is bunded.
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled manufacturing processes and do not contain any sharps or physical contaminants etc	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types are not readily combustible, however they may burn with sustained source of ignition	As above. Please refer to the FPP
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Low**	As above, risk of accidental combustion of waste is low	As above. Permitted activities do not include the burning of waste.
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	The wastes are produced for the purpose of providing benefit to soil. Materials are relatively dry and are not typically associated with leachate or runoff from stockpiles	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained on site drainage collections
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.

Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP

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Residual risk
What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Low

Very low
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Very low

Low

Treatment Risk Assessment

Standard Facility:	Waste Operation: Physical treatment (screening) of: 19 05 99 (compost derived from non-source segregated biodegradable waste), 19 06 04 (whole digestate and fibre digestate from anaerobic treatment of non-source segregated biodegradable waste), 19 06 06 (whole digestate and fibre digestate from anaerobic treatment of source segregated biodegradable waste and sludges from treatment of urban waste water only) & 19 12 12 (soil substitutes other than that containing dangerous substances only).
Location:	Applies to all potential locations
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	4Recycling Ltd
Date:	23-Oct-18

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - Physical treatment
Parameter 2	Permitted waste types - non-hazardous wastes suitable for land treatment
Parameter 3	Quantity of waste accepted at the facility: <100,000 tonnes per annum total across all permitted activities
Parameter 4	The activities shall not be carried out within Groundwater Source Protection Zone 1, or if a Source Protection Zone has not been defined then within 50 metres of any well spring or borehole used for the supply of water for human consumption. This should include private water supplies.
Parameter 5	The activities shall not be carried out within 200m of a European site (SAC, SPA), Ramsar site of Site of Special Scientific Interest (SSSI).
Parameter 6	All wastes stored will be subject to the approved Fire Prevention Plan and Fugitive Emissions Management Plan
Parameter 7	All wastes are stored seperately on an impermeable surface with sealed drainage system

Abbreviations: FEMP - Fugitive Emissions Management Plan; FPP - Fire Prevention Plan; OMP - Odour Management Plan; EMS - Environmental Management System; AMP - Accident Management Plan; WAC/WAP - Waste Acceptance Criteria/ Waste Acceptance Procedures

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Conseq-uence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**

Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types are unlikely to generate dusts as they are typically damp with moisture contents of over 30%. Wastes will be produced (composted, digested etc) prior to arrival on site, therefore some residual bioareosols may be present. There is potential for exposure to anyone working on or close to the site. The site is isolated and far from residents.	Please refer to the FEMP. Treatment (screening) will be carried out indoors. Post treatment they will be stored indoors or in covered bays.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	medium	Low	**Medium**	Local residents often sensitive to litter. These wastes will be subject to WAC/WAP	As above	Low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads	As above	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted wastes and treatment activities may give rise to some odour.	Please refer to the OMP. Treatment will occur indoors	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Low**	The site is in an isolated location, far from residents that could hear noise or feel vibration from the activities.	Appropriate measures taken to ensure levels of noise and vibration likely to cause annoyance outside the site are prevented or minimised. Operating hours will be restricted as part of the planning application and machinery will be operated and maintained in accordance with the manufacturers instructions. Please refer to the FEMP	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Medium	Medium	**Medium**	Scavenging birds and animals not normally associated with permitted activity. Treatment undertaken indoors storage indoors or in covered bays	Please refer to the FEMP	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Medium	Low	**Medium**	As above. Insect pests not normally associated with permitted activity or waste types	As above	Low

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types are approved for application to land under standard rules. Wastes will be stored on an impermeable surface with contained drainage . Any waste washed off site will not cause harm to human health or the environment.	An AMP will be implemented and maintained as part of the EMS	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Permitted waste types are produced from controlled processes. Incoming wastes will be subject ot WAC/WAP	Operations will be managed and operated in accordance with EMS (this includes site security measures to prevent unauthorised access). The wastes are enclosed within the site which will be secure	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Low	Low	**Low**	Permitted waste types have a low combustibility	As above. Please refer to the FPP	Very Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Mediium**	As above, risk of accidental combustion of waste is low. Monitoring of stockpile temperatures to assess for self heating is part of the FPP	As above. Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	High	**Medium**	The wastes will potentially generate some runoff. The treatment activitiy will occur indoors.	The wastes are stackable, and are to be stored on an impermeable surface with contained on-site drainage collection.	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	As above	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	High	**Medium**	As above	As above	Low

Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	As above	The activities shall not be carried out within Groundwater Source Protection Zone 1. Waste is stackable and will be stored on an impermenable surface with contained on site drainage collections	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur. The site is isolated and away from any urban or recreational water areas	The waste is stackable, and is to be stored on an impermeable surface with contained on-site drainage collection.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations can cause deterioration of nature conservation sites	The site is >1000 m from the nearest Special Protection Area and Biosphere Reserve. All activities will be carried in accordance with EMS, OMP FPP and FEMP	Low