	Data and in	formation				Judgeme	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
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?	What is at risk? What do I wish to protect?	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?
Dust/Particulates									
Particulate matter and dusts from delivery vehicles, handling and unloading wastes/materials, including trafficked mud and debris, dust from waste storage and treatment.	Harm to human health - respiratory irritation and illness. Nuisance - dust on property, clothing etc.	Air transport, deposition then inhalation. Air transport then deposition Air transport then deposition	Local human population Local human population Local wildlife habitats/ species	Low	Moderate	Moderate Low-Moderate Moderate	With regard to receptors in the form of public highways and private roads, dust from the site poses very little risk to human health due to the transient nature of these receptors, as members of the public are simply passing through these areas and no long-term dust exposure will occur. Dust is also unlikely to be a nuisance to these receptors due to the internalised nature of the operations. Any limited fugitive dust emissions from the site would likely be a coarse fraction range and would therefore tend to fall rapidly from the atmosphere (i.e. high deposition rates). Hence, airborne dust concentrations would be expected to decrease appreciably with distance from the source due to dilution within the atmosphere and deposition onto ground near the source. A large proportion of potential dust emissions form the processing activities are likely to comprise a particle size in excess of 30µm, which will largely deposit within 100m of the source, with intermediate particles (10-30µm) travelling between 200-500m. Smaller particles (<10µm) are likely to make up a small proportion of any potential emissions. Resultantly, any receptors with an intervening distance from the site are unlikely to be affected. The closest residential property lies ~400m from the site (Arm Lees Farm), it lies north of the site and the prevailing wind direction is from the south and south-west to the north and north-east. Therefore, this residence is downwind of the site and may be affected by fugitive dust emissions. The other residential properties within 1km of the site are either cross wind of the site to the east and southeast, or upwind of the site to the south and southwest. Furthermore, the other residential properties have significant intervening distances from the site of 530m – 1km. Potential particles most likely to contribute result in smothering or nutrient enrichment will likely deposit within 500m. Deciduous woodland sites are located adjacent to the site's northern boundary, downwind of the site boundary, but is not down	All delivery and dispatch vehicles will be fully enclosed or sheeted. Delivery vehicles will fall under the European emissions classification of Euro 5 or Euro 6. A vehicle speed limit of 10mph will be imposed at the site to prevent dust suspension by vehicle wheels. Waste delivery vehicle drivers will be advised not to leave vehicles idle when engine power is not required. If required, manual or mechanical sweeping will be undertaken at the site to prevent the build-up of dusty materials on site surfaces. Waste unloading, handling, treatment and storage will be dust suppression spraying. These will be used to reduce the fugitive dust emissions. Ther dryer exhaust gas as treated by a bag filter to minimise particulate emissions. The bag filter will be inspected monthly. All site plant (i.e. waste handler and loading shovel) will have either Euro 3 emission standard engines. Consideration will be taken to procure Euro 5 standard plant as and when they require replacement. Operational staff to be trained to assess dust generation at the site throughout the working day. Further visual assessment to be carried out daily by the site operations manager, TCM or nominated deputy. Good housekeeping will be implemented at all times to ensure the internal and external site areas do not have a build-up of dust and debris which could become airborne. The operator owns a mechanical sweeper which is utilised daily on all road surfaces to prevent the build-up of potentially dusty material. Waste drop heights will be minimised during unloading and waste treatment to avoid dusty plumes. Contact information for the site and the EA as well as the permit reference number will be displayed to the public via signage at the site entrance to ensure Stacey Ltd is made aware of any off-site nuisance as soon as possible to allow mitigation measures to be actioned. Any complaints received will be recorded on a 'Dust Complaint Form'. A Dust Emissions Management Plan (Document Ref.: SPL 1000/09.R0) has been prepared and will be mai	Low
							Ryder Slurry Ponds are located ~2003 northwest of the site, but are not downwind of the site in relation to the prevailing wind. All other conservation areas are more than 500m from the site and are unlikely to be significantly impacted by the permitted activities.		

	Data and in	formation				Judgeme	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Odours									
Fugitive odours from delivery and dispatch of wastes/materials Fugitive odours from waste unloading, handling and processing of waste. Fugitive odour emissions from waste storage Fugitive odour release during an abnormal event such as a spill or leak	Nuisance, loss of amenity	Air transport then inhalation.	Local human population	Low	Moderate	Low-Moderate	The wastes being handled and processed are not putrescent in nature and are unlikely to have a significant odour generation potential Malodorous wastes will be rejected from the site upon delivery. As the site is in a rural setting, the human receptors are more dispersed. A holiday let and residential property are located 285m and 290m downwind of the prevailing winds (i.e. north of the site). , with others situated from the site. Receptors such as public highways and private roads are unlikely to be affected by odours due to their transient nature. Industrial premises lie adjacent to the west but are not likely to the significantly impacted by any potential odour emissions.	Waste Pre-acceptance and acceptance checks will be conducted to ensure the waste is compliant and acceptable. Malodorous waste will not be accepted. Good housekeeping measures will be implemented to ensure that there is no build-up of waste residues which could become malodorous. Equipment used in waste processing will be cleaned after use to remove any residual waste. Daily inspections of the site conditions and odour monitoring will be carried out to ensure that any issues are identified as soon as possible and mitigation measures can be implemented. Operational staff will also be trained to assess any odour generation at the site throughout the working day and will alert the site operations manager, TCM or nominated deputy who will investigate the issue and take corrective action. Contact information for the site and the EA as well as the permit reference number will be displayed to the public via signage at the site entrance to ensure Stacey Ltd is made aware of any off-site nuisance as soon as possible to allow mitigation measures to be actioned. Any complaints received will be recorded on an 'Complaint Form'.	Low
Litter								Company on .	
Litter from waste delivery vehicles Litter from waste stored on site Litter from the welfare and office facilities	Nuisance, loss of amenity, road traffic accidents and harm to animal health	Vehicles entering and leaving site. Air transport and then deposition	Local human population, livestock and wildlife. Local road users. (All Receptors)	Low	Moderate	Low-Moderate	Waste types to be permitted at the site may generate small amounts of litter.	All waste delivery and dispatch vehicles will be fully enclosed or sheeted. Any sorted residual fractions will be stored uncover in engineered bays. All wastes will be inspected upon delivery to the site to ensure contaminated wastes are not accepted. All vehicles to be inspected prior to leaving site. The site offices and welfare facilities will have plenty of rubbish bins for site staff to dispose of their waste in. Regular cleaning will also be undertaken in these areas which will ensure litter is not present which may escape from the building. Daily inspections of the site will be conducted which will include inspections for evidence of litter around the site. Operational staff will also be trained to observe any evidence of such emissions and the Site Operations Manager, TCM or nominated deputy will be advised. They will then investigate the issue and action the appropriate remedial measures. When required, manual or mechanical sweeping will be implemented to remove mud and debris deposited on site surfaces. The source of any litter will also be investigated and remediated. Good housekeeping will be employed at the site to ensure there is not build up of waste residue or litter.	Very Low

Environmental and Accident Risk Assessment

	Data and in	formation				Judgem	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
flud and Debris	<u>'</u>				<u>'</u>				
Waste debris and mud on local roads Fracking of mud and debris onto public roads causing accident, nazards and muisance to road users.	Nuisance, loss of amenity, road traffic accidents and harm to animal health	Vehicles entering and leaving site.	Local human population, livestock and wildlife. Road users (All Receptors)	Low	Low	Low	Internal and external site surfaces comprise impermeable concrete surfacing which will be easy to clean. Internal haul routes within the site reception area are metalled. All main public road networks are located over 1km from the site reception.	All waste delivery vehicles will be fully enclosed or sheeted. All waste delivery vehicles will be inspected prior to entering and leaving the site. When needed, manual or mechanical sweeping will be utilised to prevent the build-up of mud or debris on site surfaces. The internal and external site surfaces comprise impermeable surfacing which is easy to clean and will minimise the tracking of mud and debris onto public roads. The operator owns a mechanical sweeper which is utilised daily on all road surfaces to prevent the build-up of potentially dusty material. Daily site inspections will be conducted to ensure any issues are identified as soon as possible to allow remediation to be implemented. The access road will also be inspected to ensure no fugitive mud or debris emissions are causing nuisance. Site operational staff will be trained to observe any evidence of mud and debris on site surfaces and alert the site operations manager, TCM or nominated deputy immediately. An investigation into the source will be carried out and mitigation measures actioned. Good housekeeping will be implemented at the site to ensure there	Very Low
								Good housekeeping will be implemented at the site to ensure there is not build up of waste mud and debris.	
and scavenging birds, Pests (e.g. lies) attracted to or infesting wastes	waste carried off site and faeces. Nuisance and loss of amenity. Negative effects on habitats and crops		and local habitats.				The site is located in a rural area and, therefore, a variety of wildlife is likely to be in relatively close proximity to the proposed WTS. An increase in pests and scavengers to the area could impact on the species and habitats.	Waste deliveries will be inspected upon delivery to the site. Infested loads will be rejected. Good housekeeping will be implemented at the site to ensure there is not build up of waste residue which could attract scavengers and pests. Where required, manual or mechanical sweeping will be carried out to ensure site surfaces are clean. In the unlikely event that a waste stockpile becomes infested with insects, insecticides will be used and the waste will be transferred off site as soon as possible. If a stockpile becomes infested with scavengers, a pest control contractor will be deployed, and the waste will be transferred off site as soon as possible. These measures will be actioned quickly to reduce the risk of an infestation spreading to other waste stockpiles. Daily inspections of the site will be carried out and the results will be recorded. Site staff will also be trained to recognise and alert the site operations manager, TCM or nominated deputy of any suspected pest infestations. This enables any issues to be identified quickly and allow further investigation and remediation to take place. Should insects posing a nuisance be observed at site, insecticides offering rapid knock-down and long-term treatment shall be utilised. A specialist contractor shall inspect the facility weekly during the summer months and at appropriate frequencies at other times. In the event that the daily site inspections or the observations of	
								operational staff find evidence of the presence of scavengers such as rats and other pests, a specialist contractor will be called to	
								attend the site for pest control.	

	Data and in	formation				Judgeme	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Noise & Vibration									
Noise and vibration caused by engine noise and vibrations from site plant and equipment, lorry movements etc.	Nuisance, loss of amenity, loss of sleep or harm.	Noise through the air and vibration through the ground.	Local human population	Low	Moderate	Low-Moderate	The site is ringed by trees and shrubs, as well as a berm providing some cover in the directions of the residential properties. All residential receptors are located ~400m+ from the site boundary. Adjacent industrial and commercial premises are unlikely to be adversely affected by noise as they are likely to generate noise themselves (for example, the quarry situated ~70m to the east of the site). Glass treatment operations carried out internally, providing a barrier to noise and vibration at local receptors.	Speed limit of 10mph to be implemented at the site. Internal roads and surfaces will also be maintained and kept free of ruts and potholes to minimise body slap. All plant and equipment used on site will be operated and maintained in accordance with manufacturer recommendations. Noise levels will be monitored daily by site operations manager (or nominated deputy) to ensure that operations are not resulting in significant levels of noise beyond the site boundary.	Low
Water									
Generation of contaminated run- off and leachate from wastes and other hazardous substances handled on site (e.g. fuels, oils etc).	Harm to protected site through nutrient enrichment, leachate, contaminated surface water runoff	Surface water run- off, and sub- surface transport of leachates then base and spring flows to rivers.	Groundwater, surface water bodies and their associated habitats.	Low	Low	Low	The waste types permitted are not likely to cause significant contaminated run-off. Surface water is collected in the sealed drainage system and isolation tank.	Spills kits to be positioned strategically across the site. All plant and equipment to be maintained in accordance with manufacturers recommendations. All storage facility for fuels, oils and other potentially polluting substances to fully contained in the event of a spill of leak. The drainage system is inspected daily for signs of damage or leaks. Water collected within the isolation tank is inspected daily and prior to discharge for signs of contamination.	Very Low
Flooding of the site	Contamination of buildings, gardens, agricultural land, natural habitats etc downstream resulting from waste washed offsite.	Flood waters	Local human population, crops and local habitats. (All receptors)	Very Low	Low	Very Low	Upon review of the Environment Agency flood risk map, the site lies within a Flood Zone 1 (annual flood probability of less than 0.1%; low risk). Therefore, the site is not at risk of flooding. Only non-hazardous wastes will be handled at the site.	None	Very Low

	Data and i	nformation				Judgem	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Accidents				ехрозите		III			
On site hazards: wastes, machinery, vehicles, surface water attenuation pond.	Bodily injury	Direct physical contact	Local human population	Low	High	Moderate	The site is fully secured. The waste operations are carried out by heavy machinery and large vehicles. An accident involving these may bring serious harm.	deter trespassers. All site staff and visitors will receive an induction to the site to ensure safety protocols are adhered to. All site staff will receive thorough training on the site safety procedures and the use of the plant and equipment on site.	Low
								Appropriate personal protective equipment (PPE) will be provided for all site staff, particularly those handling waste. Designated pedestrian route are clearly marked around the site.	
Fire resulting from arson/vandalism or an accident causing the release of polluting materials (smoke or fumes) to air, water or land.	Bodily injury	Direct physical contact	Local human population	Very Low	Moderate	Low	Only small quantities of residual wastes will be stored at the site. The site is in a remote area and surrounded by fencing and gates will be locked shut outside of operational hours.	No fires are permitted on site. There is a dedicated smoking shelter and smoking will not be permitted in any other location on site. All flammable substances (e.g. fuels) will be kept in the appropriate containers and conditions according to their specific safety instructions. The site is in a remote area and surrounded by fencing and gates will be locked shut outside of operational hours. Signs are present at the site entrance and along the perimeter to deter trespassers. Plant and equipment will be operated and regularly maintained in line with manufacturers recommendations. Plant and equipment will be inspected daily as part of the site checks. In the event any damage is observed, it will be recorded and reported to the site operations manager, TCM or nominated deputy. Any repairs will be affected as soon as possible or within 5 working days (subject to replacement material availability). Mitigation measures will be undertaken immediately if there is a possibility for ignition. Site staff will be trained in the fire protocols, including the locations and use of firefighting equipment, emergency exits, emergency contacts and the fire assembly point. An Incident Management Plan (IMP) will be made available to staff. Firefighting equipment at the site will be clearly marked and tested, at appropriate intervals, to confirm their suitability and functionality. Access routes will remain clear to ensure fast access for emergency services vehicles. Records of all incidents will be kept on site together with the remedial action taken.	Very Low

	Data and in	formation				Judgeme	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Leaks and Spillages from on-site plant/vehicles, waste or contaminated rainwater runoff (including firewater).	Deterioration of water quality, contamination of ground/surface waters,	Direct run off from site across ground surface, indirect runoff via the soil layer or transport through soil/groundwater	Groundwater, surface water bodies and their associated habitats.	Moderate	Moderate	Moderate	Only non-hazardous wastes will be handled at the site. Liquid wastes will not be accepted at the site. The site surface water discharges to the lined surface water pond.	All vehicles delivering and dispatching wastes will be sheeted or fully enclosed. Spills kits will be strategically positioned around the site. External yard and haulage routes consist of impermeable concrete surfacing. The condition of the site surfacing will be inspected daily. Any repairs will be undertaken as soon as reasonably practicable.	Low
Abnormal Condition	s								
Containment Damage	Harm to human health - respiratory irritation and illness. Nuisance – dust, olfactory, and noise emissions Contamination of surrounding land, groundwater and surface water.	Air transport then deposit or inhalation, direct run off	Local human population, crops and local habitats	Low	Moderate	Low	The storage bays at the site are impermeable, as is the clay-lined surface water pond. However, should the lining be punctured or the site become permeable, there is potential for a pathway to be opened to the highly vulnerable aquifer beneath the site.	Waste delivery vehicles will be fully enclosed or covered. The site storage bays impermeable concrete surfaces will be inspected periodically to ensure there is no damage. The clay lining is regularly inspected and maintained to ensure it does not leach water. Any required repairs will be done as soon as practicable. In the event that an issue with the containment measures at the site arises, and results in a spill / leak of waste, mitigation and control measures will be taken. The procedures for a spills / leaks are outlined above and will be followed.	Low
Power loss	Harm to human health and local habitats and surface water via fugitive emissions Nuisance to local human receptors via fugitive emissions	Airborne transport	Local human population, crops and local habitats	Very Low	Moderate	Low	Should the site lose power, there is no significant potential for emissions to occur due to that power loss.	If power / water is lost for a sufficiently long period of time where it has the potential to affect ancillary functions outside of the main operations then alternative means of power generation/water supply will be sought.	Very low

	Data and in	formation				Judgemo	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Vandalism and security breach	Bodily injury	Direct physical contact	Local human population	Low	Moderate	Low-Moderate	The vast majority of what is kept on site is not of immediate value to criminal elements. The site is not particularly politically or ethically sensitive.	The site is surrounded by fencing and the access gate will be locked shut outside of operational hours. Signs will be installed on the perimeter fencing and gates to alert potential trespassers or vandals of the presence of CCTV in order to deter their illegal entrance to the site. Site security infrastructure will be inspected daily as part of the daily site inspection. Any damage will be recorded on the check sheet and will be reported to the site operations manager, TCM or nominated deputy. Any damage to the integrity of the boundary, gates or any other security structure, where practicable, will be repaired by the end of the working day. If it is not possible to make repairs within a working day, temporary repair measures will be implemented. Final repairs will be carried out within 7 working days of the damage being detected or any other such period as agreed in writing with the EA. All damage and repairs (temporary or permanent) are to be recorded in the Site Diary. All visitors to the site (including personnel) must report to the site office to sign in and sign out on exit.	Very Low
Operator error	Bodily injury Harm to human health - respiratory irritation and illness. Nuisance – dust, olfactory, and noise emissions Contamination of surrounding land, groundwater and surface water.	Direct physical, air transport then deposit or inhalation, direct run off	Local human population, crops and local habitats. (All receptors)	Low	High	Moderate		Technically competent people oversee the management of activities at the site, in accordance with the fit and proper person requirements. Training (including refresher training) will be given to all site staff on the environmental permit, health and safety and incident response procedures. Site staff will be trained on site equipment/plant prior to first use and supervised by a technically competent person. Employment of Stacey Processing's Standard Operating Procedures (SOPs) developed in accordance with published Best Practice and Health and Safety Executive Guidance.	Low

	Data and ir	nformation				Judgeme	nt	Action (by permitting)		
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk	
Emissions from plant or equipment due to abnormal conditions	Harm to human health - respiratory irritation and illness.	Air transport, deposition then inhalation.	Local human population	Low	High	Moderate	-	All machinery used on site will be operated and maintained in accordance with manufacturers' recommendations. The plant and equipment to be used on site will be classified as Euro 3 emission standard engines. Consideration will be taken to procure Euro 5 standard plant as and when they require replacement.	Low	
								All operational areas will be underlain with an impermeable concrete surfacing. All machinery will undergo regular checks and maintenance in line with manufacturers recommendations. All plant and equipment will be inspected for damage / leaks before and after use as part of daily operation and maintenance checks. Any damage will be recorded on a check sheet and reported to the site operations manager, TCM or nominated deputy. Any plant or equipment identified as being defective will be removed for active use and repaired as soon as possible.		
Inadequate waste acceptance procedures	Harm to human health - respiratory irritation and illness. Bodily harm Nuisance (e.g. dust for non-compliant particularly dusty waste loads)	Transported by vehicle	Site operatives and site users	Low	Moderate	Low-Moderate	-	All wastes will undergo stringent pre-acceptance procedures. All site staff, particularly the site operations manager and TCM, will have knowledge of the Environmental Permit and on the types of waste accepted and prohibited at the site. Accompanying paperwork will be reviewed to ensure the details are correct and that all fields are completed. All waste loads will be visually inspected during unloading. Any non-conforming wastes will be identified by the site operatives. This will either be re-loaded onto the delivery vehicle for immediate transfer off site.		

	Data and in	formation				Judgem	ent	Action (by permitting)	
Source	Harm	Pathway	Receptor	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Protected Species	and Habitats								
On site activities	Harm to protected species off-site through contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Protected species and habitats	Low	Low	Low	The surface water receptors of the Ryder Point Slurry Ponds local wildlife site lie northwest of the site. These are a protected habitat for the Great Crested Newt, a protected species. The protected ancient woodland 'Ball Eye Wood' lies approximately 890m north of the site, therefore, despite being downwind, the significant intervening distance significantly reduces the risk of any fugitive emissions impacting this woodland. The SSSI 'Via Gelli Woodland' lies approximately 700m northeast of the site, therefore, despite being downwind, the significant intervening distance significantly reduces the risk of any fugitive emissions impacting this SSSI. The closest deciduous woodland down wind of the site lies immediately adjacent to the site. These are both up and down wind of the site. Dust emissions are considered above.	Waste delivery vehicles will be fully sheeted or enclosed. There is a significant intervening distance between the site and the ancient woodland. The closest deciduous woodland lies on or over the berm around the site. The mitigation and control measures for the site to prevent fugitive emissions which could affect species and habitats have been outline previously in this risk assessment. Any pipework or infrastructure related to the washing system is inspected daily for leaks. Leaks will be repaired as soon as practicable, and washing will not be carried out until work is complete. Site vehicles / plant are checked and serviced at manufacturer recommended intervals. This is combined with daily checks of plant to enable any defects to be reported to the TCM for resolution. Fuel / oil to be used for site plant will be stored in a bunded double skinned tank with a capacity no less than 110% of the primary containment tanks. Regular inspection of the integrity of this tank will be conducted to ensure the risk of any spills or leaks is as low as possible	Low
	Harm to protected species onsite through contamination, nutrient enrichment, smothering, disturbance, predation etc.	Via runoff or wash water into surface water pond	Code 2 Protected species	Moderate	Low	Low	The site handles non-hazardous inert wastes only with a low risk profile. The available data indicates a minor or incidental observation of the identified species. The pond collects water from rainfall and discharge from the site drainage system. All the surface waters from the permitted site drains into the sealed drainage system. This water is collected in a sump and pumped into the surface water pond when full. The operator proposes to discharge add a 20,000L interception tank with isolation valve, which will collect water prior to discharge.	Waste delivery vehicles will be fully sheeted or enclosed. Any pipework or infrastructure related to the washing system is inspected daily for leaks. Leaks will be repaired as soon as practicable, and washing will not be carried out until work is complete. The site drainage system has a tank located prior to the outlet with a valve that can be shut off if the water is deemed to be contaminated. This will prevent contamination from entering the pond. The integrity of the engineered surfaces and drainage systems will be inspected regularly, and any damage will be repaired as soon as practicable. Site vehicles / plant are checked and serviced at manufacturer recommended intervals. This is combined with daily checks of plant to enable any defects to be reported to the TCM for resolution. Fuel / oil to be used for site plant will be stored in a bunded double skinned tank with a capacity no less than 110% of the primary containment tanks. Regular inspection of the integrity of this tank will be conducted to ensure the risk of any spills or leaks is as low as possible	Low