Risk Assessment

Risk assessment for land spreading activity at Great house, Cassandra and Coles Land as per Spreading Maps.

Risk assessment reviewed by Dawn Loos (November 2025).

Data				Judgement				Action	
Receptor What is at risk? What do I wish to protect?	*Source* The agent or process with potential to cause harm	*Harm* The harmful consequences if things go wrong	*Pathway* How the receptor might come into contact with the source	*Probability of exposure* How likely is this contact?	*Consequence* Severity of the consequences if this occurs	*Magnitude of risk* The overall magnitude of the risk	*Justification for magnitude* Basis of my judgement	*Risk management* How I can best manage the risk to reduce the magnitude	*Residual risk* Magnitude of the risk after management
Surface water – ditches, watercourses and ponds	Nutrients, aluminium, and organic matter	Surface water pollution	Surface run-off	Medium	High	Medium	Proximity of ditches and under drainage Low pollution potential of water treatment works sludge.	Comply with NVZ, Cross Compliance, Sludge Regs and EPR. No spreading areas to be observed as per attached plans. Follow PQA	Low
Groundwater	Nutrients, Aluminium, PTEs	Groundwater pollution	Inappropriate application	Medium	Medium	Low	WTW sludge has low concentrations of PTEs. Some WTW sludges contain iron but solubility low at observed soil pHs. Iron sludge will not be spread on fields with soil pH <5	As above	Low
Soils	Physical damage to soil structure	Damage to soil structure and poor subsequent grass yields	Delivery and spreading activity.	Low	Medium to high	Low	Delivery and spreading to be undertaken when ground conditions are suitable	Comply with Soil Code and Cross Compliance Criteria. Apply only in suitable conditions. Follow PQA	Low

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Soils	Nutrients, Aluminium, and PTEs	Build-up of nutrients. and/or PTEs	Spreading activity	High	Medium to high	Low	Waste analysis. Soil analysis. Appropriate rates of application. ferric sludge will not be spread on fields with soil pH <5	Apply according to PQA, RB209 and Soil Code	Low
Soils	High Magnesium levels (Soil Index of 3). Applicable to fields at: Great House Farm- 1, 2 ,3 ,4 ,5 & 6. Coles 3 and Cassandra 1, 5 & 6.	Runoff and erosion, leading to sediment loss. Risk of nutrient transport to watercourses. Reduced soil aeration and infiltration, potentially causing waterlogging and decreased soil biodiversity.	Spreading activity	Medium	Medium	Low	Proximity of sensitive sites: 10m buffer zone strictly observed where fields border ancient woodlands and watercourses. 50m buffer zone strictly observed where wells, springs and issues have been identified. Waste will not be applied to sloping land 12+ degrees. Application rates will be managed and controlled.	Comply with CoGAP, Permit Conditions, EPR. Waste will be applied according to Codes of Good Agricultural Practice and SR2010No4 EMS. Buffer zones to be observed as per site plans attached to protect surface waters, hedgerows and other sensitive receptors. Applications will avoid high-risk periods (e.g. wet, frozen, or waterlogged conditions).	Low
Local human population and wildlife	Spreading activities – physical	Harm to humans or animals	Trespass, accidental contact	Low	Medium	Low	Agricultural areas with limited public access. Leave a 2m minimum buffer zone adjacent to footpaths in fields.	Application during appropriate conditions and awareness of access issue	Low
Local human population	Odour during spreading activity	Odour issues/complaints	Airborne compounds	Low	Low	Low	The WTW sludge has minimal odour	Odour management plan available in EMS in accordance with SR2010No4 permit	Low
Local human population	Releases of airborne dusts/ particulate matter	Harm to human health - respiratory irritation and illness.	Air transport then inhalation	Low	Medium	Low	Waste streams have low potential to produce airborne dust and particulate matter	Waste will be applied in accordance with CoGAP and EMS	Low
Local human population	As above	Nuisance dust on cars, clothing etc.	Deposition from air	Low	Low	Low	As above	As above	Low
Local human population	Emissions; litter	Nuisance loss of amenity and harm	Transport through air	Low	Low	Low	Waste does not contain litter as it derives from a	Waste will be applied according to Codes of	Low

Risk Assessment (continued)

		to pet health					controlled manufacturing process	Good Agricultural Practice and SR2010No4 EMS.	
Local human population	Noise	Noise complaints	Noise from delivery and spreading.	Low	Low to Medium	Low	Agricultural machinery in agricultural areas	Avoid sensitive spreading periods e.g. bank holidays and weekends. Delivery during daylight hours	Low
Local human population	Pests (e.g. scavenging animals, flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low / Medium	Low / Medium	Low / Medium	The WTW sludge is highly unlikely to attract scavenging animals. Sludge has low potential to attract flies	All waste will be stored, transported and spread in accordance with conditions set in SR2010No4 permit and CoGAP. Wastes are unlikely to attract pests as WTW sludge is not food based	Low
Local human population and local environment.	Mud on local roads	Nuisance, loss of amenity, risk of accident	Vehicles entering and leaving site	Medium	Medium	Medium	Road safety. Tractors/ spreaders trailing mud and debris from fields	Operation will not cause any additional effects on surrounding roads than normal agricultural practice occurring in the surrounding area	Low
Hedgerows and trees	Physical damage from spreading equipment	Ecological & landscape	Physical damage from spreading equipment	Low	Low	Low	Professional contractors employed instructed to take care around trees	Leave a 2m minimum buffer zone adjacent to trees and hedgerows	Low
River Usk (Lower Usk) SSSI	Nutrients PTEs Dusts Noise	Ecological	Surface run-off Flooding Airborne compounds Noise from delivery and spreading	Low	High	Medium	Proximity of protected site. SSSI borders parts of fields 2 and 13. Particularly sensitive nature of site (otters/fish/plant species) Waste streams have low potential to produce airborne dust and particulate matter. Agricultural machinery in agricultural areas Delivery to storage area is >250m away from designated area	Apply according to PQA. 20m non-spreading buffer zone applied to where SSSI borders fields and to watercourses that run directly into SSSI. Areas known to flood non-spreading of fields 15, 16, 22, 13, 5, 4, 3 and 2 between Oct and April. (refer to spreading map). Avoid sensitive spreading periods e.g. breeding season. No activity to take place within designated areas	Low
River Usk SAC	Nutrients PTEs Dusts	Ecological	Surface run-off Flooding Airborne compounds	Low	High	Medium	Proximity of protected site. SAC borders parts of fields 2 and 13. Particularly sensitive nature of site (fish and	Apply according to PQA. 20m non-spreading buffer zone applied to where SSSI borders fields and to watercourses that run	Low

Risk Assessment (continued)

	Noise		Noise from delivery and spreading				plant species) Waste streams have low potential to produce airborne dust and particulate matter. Agricultural machinery in agricultural areas Delivery to storage area is >250m away from designated area	directly into SSSI. Areas known to flood non-spreading of fields 15, 16, 22, 13, 5, 4, 3 and 2 between Oct and April. (refer to spreading map). Avoid sensitive spreading periods e.g. breeding season. No activity to take place within designated areas	
Ancient woodland sites	Nutrients PTEs Dusts	Harm to protected site and species through indirect contamination of site adjacent to spreading area (nutrient enrichment).	Migration of leachate to adjacent site.	Medium	Medium	Low	Proximity of ancient sites to spreading fields: **Site- Great House Farm** 1. Field F4- bordering field. 2. Field F5- approximately 37m from field. 3. Field F8- bordering field. **Site- Cassandra Farm (Coles Land)** 1. Field 3 - bordering field. Waste has very low concentrations of PTEs and low potential to produce airborne dust and particulate matter.	Comply with CoGAP, Permit Conditions, EPR. Waste will be applied according to Codes of Good Agricultural Practice and SR2010No4 EMS. Buffer zones to be observed as per site plans attached.	Low
'Madam Rogers' Wood' SINC	Nutrients PTEs Dusts	Harm to protected site and species through indirect contamination of site adjacent to spreading area (nutrient enrichment).	Migration of leachate to adjacent site.	Medium	Medium	Low	Proximity of ancient sites to spreading fields: **Bordering Field F8 (Great House Farm).**	Comply with CoGAP, Permit Conditions, EPR. Waste will be applied according to Codes of Good Agricultural Practice and SR2010No4 EMS. Buffer zones to be observed as per site plans attached.	Low
Cefn-henllan	Nutrients	Harm to protected site and species	Migration of leachate to adjacent	Medium	Medium	Low	Proximity of ancient	Comply with CoGAP, Permit Conditions, EPR.	Low

Risk Assessment (continued)

Wood SINC	PTEs Dusts	through indirect contamination of site adjacent to spreading area (nutrient enrichment).	site.				sites to spreading fields: **Located 37m from field F5 (Great House Farm).**	Waste will be applied according to Codes of Good Agricultural Practice and SR2010No4 EMS. Buffer zones to be observed as per site plans attached.	
Protected habitats	Nutrients PTEs Dusts	Harm to protected site and species through indirect contamination of site adjacent to spreading area (nutrient enrichment).	Migration of leachate to adjacent site.	Medium	Medium	Low	Bordering fields 13 and field 5 (Cassandra Farm).	Comply with CoGAP, Permit Conditions, EPR. Waste will be applied according to Codes of Good Agricultural Practice and SR2010No4 EMS. Buffer zones to be observed as per site plans attached.	