



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 (September 2025).

| Data | | | | Judgement | | | | Action | |
|---|--|--|--|---|---|---|--|---|--|
| <i>Receptor</i> What is at risk? What do I wish to protect? | <i>Source</i> The agent or process with potential to cause harm | <i>Harm</i> The harmful consequences if things go wrong | <i>Pathway</i> How the receptor might come into contact with the source | <i>Probability of exposure</i> How likely is this contact? | <i>Consequence</i> Severity of the consequences if this occurs | <i>Magnitude of risk</i> The overall magnitude of the risk | <i>Justification for magnitude</i> Basis of my judgement | <i>Risk management</i> How I can best manage the risk to reduce the magnitude | <i>Residual risk</i> 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 |

Risk Assessment (continued)

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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 |
| 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 to pet health | Transport through air | Low | Low | Low | Waste does not contain litter as it derives from a controlled manufacturing processes | Waste will be applied according to Codes of Good Agricultural Practice and SR2010No4 EMS. | Low |
| 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 | 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 |

Risk Assessment (continued)

| | spreading equipment | | | | | | | | |
|----------------------------|-------------------------------------|------------|--|-----|------|--------|--|---|-----|
| 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 eg. breeding season No activity to take place within designated areas | Low |
| River Usk SAC | Nutrients PTEs Dusts Noise | Ecological | Surface run-off Flooding Airborne compounds Noise from delivery and spreading | Low | High | Medium | Proximity of protected site. SAC borders parts of fields 2 and 13 Particularly sensitive nature of site (fish and 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 eg. breeding season No activity to take place within designated areas | Low |