

## Risk Assessment

Risk assessment for land spreading activity at Cefn Naw Clawdd, Glyn Farm, and Tan-y-Coed Uchaf.

Risk assessment reviewed by Esther Koroma, 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 Water Code, NVZ, Cross Compliance, Sludge Regs and EPR. No spreading areas to be observed as per attached plans.	Low
Groundwater	Nutrients, Aluminium, PTEs	Groundwater pollution	Inappropriate application	Medium	Medium	Low	WTW sludge has low concentrations of PTEs. Some WTW sludges contain aluminium but solubility low at observed soil pHs. Alum sludge will not be spread on fields with soil pH <6	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.	Low

## Risk Assessment (continued)

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. Alum sludge will not be spread on fields with soil pH <6	Apply according COGAP and RB209	Low
Local human population and wildlife	Spreading activities – physical	Harm to humans or animals	Accidental contact	Low	Medium	Low	Agricultural areas with limited public access. Minimum 3 week non utilisation period  Brown Hare identified as a species potentially present in the field	Application during appropriate conditions and awareness of access issue. Halt operation when public need to access the field.  Spreading only during the day when nocturnal animals are absent	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 process	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	Low

## Risk Assessment (continued)

								surrounding area	
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
Cadair Idris SSSI/SAC	Nutrients PTEs Dusts	Ecological	Surface run-off Airborne compounds	Low	High	Medium	Proximity of protected site. SSSI borders some fields but SAC is >250m from nearest spread area.  Particularly sensitive nature of site (rock outcrops/ bogs/ heath/ woodland/ lakes/ plant species)  Waste streams have low potential to produce airborne dust and particulate matter.  Spreading area is downhill from SSSI	20m non-spreading buffer zone applied to where SSSI borders fields.  No activity to take place within designated areas	Low
Cadair Idris SSSI/SAC	Noise	Ecological	Noise from delivery and spreading	Medium	High	Medium	Proximity of protected site  Particularly sensitive nature of site (bats)  Agricultural machinery in agricultural areas  Delivery to storage area is >280m away from designated area	Avoid sensitive spreading periods e.g., breeding season.  No activity to take place within designated areas	Low
Lleyn Peninsula and the Sarnau SAC  Mawddach Estuary SSSI	Nutrients PTEs Dusts Noise	Ecological	Surface run-off Airborne compounds  Noise from delivery and spreading	Low	High	Medium	Proximity of protected site. Sites are >230m from nearest spread area.  Particularly sensitive nature of site (rivers/ estuaries/ salt marsh/ mud flats/ animal and plant species)  Waste streams have low potential to produce airborne dust and particulate matter.  Spreading area is	Avoid sensitive spreading periods e.g., breeding season.  No activity to take place within designated areas	Low

## Risk Assessment (continued)

							downhill from nearest watercourse		
Llwyn-larth SSSI	Nutrients PTEs Dusts	Ecological	Surface run-off Airborne compounds	Low	High	Medium	Proximity of protected site. Sites are >360m from nearest spread area.  Particularly sensitive nature of site (grassland/ fen/ flushes/ scrubland)  Waste streams have low potential to produce airborne dust and particulate matter.  Spreading area is downhill from SSSI	No activity to take place within designated areas	Low
Meirionnydd Oak Woods and Bat Sites SAC	Nutrients PTEs Dusts Noise	Ecological	Surface run-off Airborne compounds Noise from delivery and spreading	Medium	High	Medium	Proximity of protected site. Sites are >400m from nearest spread area.  Particularly sensitive nature of site (woodland/ bats)  Agricultural machinery in agricultural areas	Avoid sensitive spreading periods e.g., breeding season.  No activity to take place within designated areas	Low
Bryn y Gwyn Isaf SSSI	Nutrients PTEs Dusts Noise	Ecological	Surface run-off Airborne compounds Noise from delivery and spreading	Low	High	Medium	Proximity of protected site. Site is >400m from nearest spread area.  Particularly sensitive nature of site (woodland/ bats)  Agricultural machinery in agricultural areas	Avoid sensitive spreading periods e.g., breeding season.  No activity to take place within designated areas	Low
River Clwedog	Nutrients PTEs Dusts	Ecological	Surface run-off Atmospheric deposition from spray/dusts	Medium	Medium	Medium	River runs adjacent to fields to be spread.  Low pollution potential of wastes  Wastes are non-dust forming.  Sensitivity of site (migratory route)	Apply according to CoGap and using the appropriate low trajectory methods (e.g., trailing shoe or dribble bar). No spreading during periods of high winds, observe a 20m no-spread zone between the field and the river.	Low

## Risk Assessment (continued)

Restored 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:  Field 1113 (8 m), field 9216, (136m) and field 2585 (60 m).  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
Snowdonia National Park (All fields)	Nutrients and PTEs Physical damage from spreading equipment	Harm to site and species through contamination or habitat interference (nutrient enrichment, loss, disturbance etc.	Direct application to land. Direct contact and uptake via soil.	Medium	High	Medium	Delivery and spreading to be undertaken when ground conditions are suitable.  Professional contractors employed instructed to take care around sensitive areas.  Waste has very low concentrations of PTEs.	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
Flood risk (Fields 0865,9846,1416 ,9216,1113,026 4 & 2585)	Nutrients and PTEs	Surface water pollution	Surface run-off	Medium	Medium	High – High at specific months of the year when rainfall is higher.	Delivery and spreading to be undertaken when ground conditions are suitable.  Professional contractors employed instructed to take care around sensitive areas.  Waste has very low concentrations of PTEs.  Targeted spreading periods are times of the year less likely to have flood issues.	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.  Wastes will only be applied in suitable conditions.  The use of the weather forecast and flood watch to monitor.	Low