Risk Assessment

Risk assessment for land spreading activity at Blaen Y Coed, Ysbyty Ifan, Betws-y-Coed, Gwynedd.

Reviewed by Dawn Loos, May 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 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 pH range. 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. Follow PQA	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 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. Minimum 3-week non-utilisation period	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 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 surrounding area	Low

Risk Assessment (continued)

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
Migneint-Arenig-Ddualllt SAC/SPA/SSSI	Nutrients PTEs Dusts	Ecological	Surface run-off Airborne compounds	Medium	High	Medium	Proximity of protected site Particularly sensitive nature of site (bogs/ heath/ woodland/ lakes/ various animal and plant species) Waste streams have low potential to produce airborne dust and particulate matter	20m non-spreading buffer zone applied to where SAC/SPA/SSSI borders fields and to watercourses that run directly into protected site	Low
Migneint-Arenig-Ddualllt SAC/SPA/SSSI	Noise	Ecological	Noise from delivery and spreading	Medium	High	Medium	Proximity of SSSI Particularly sensitive nature of sites (birds) Agricultural machinery in agricultural areas	Avoid sensitive spreading periods e.g., breeding season	Low
National Park	Nutrients PTEs Dusts Noise	Ecological	Surface run-off Airborne compounds Noise from delivery and spreading	Medium	High	Medium	Proximity of protected site Particularly sensitive nature of site (bogs/ heath/ woodland/ lakes/ various animal and plant species) Waste streams have low potential to produce airborne dust and particulate matter 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. Application during appropriate conditions.	Low