1. Appropriate Technical Expertise

This agricultural benefit statement has been prepared by Richard George Street of Trade Effluent Services Ltd.

Professional Qualifications:

- FACTS Qualified Advisor: R/FE/5689
- BASIS – Nutrient Management Planning – Fieldfare Training Ltd
- Land spreading of Non-Farm Wastes - Fieldfare Training Ltd
- FACTS (Fertiliser Advisors Certification and Training Scheme) – Goole Training.
- WAMITAB COTC Level 4 - Land spreading / Treatment of non-hazardous waste
- BSc. (hons) Environmental Management – University of Central Lancashire

2. Land Details

Landowner/Occupier: Charlie Beckett
Main Farm Address: Fields Farm, Fields Lane, Willington,
Tallarn Green,
Wrexham, SY14 7LR.
Grid Reference of main farm: SJ 44240 43449
CPH Number: 56 246 0002
Land Usage: Agricultural

(Map 1 – Satellite image showing Field Farm and all fields proposed for spreading)

TRADE EFFLUENT SERVICES

Deployment Application – 3675 - Fields Farm

It is proposed to spread two waste materials supplied by D. Wise Ltd at Fields Farm. The application will cover 28.8 hectares of land in and around the farm, covering 10 fields (Map 1).

Field sizes and OS National Grid references are provided in (Table 1), with a site plan included in the Appendix.

Field	Spreadable Area (ha)	Grid Reference
1	2.3	SJ 44534 43986
2	6.6	SJ 44499 43765
4	2.3	SJ 44249 43707
5	1.1	SJ 44231 43645
7	3.4	SJ 44696 43751
8	2.2	SJ 44806 43690
10	2.9	SJ 45104 43705
11	5.6	SJ 44841 43101
12	0.8	SJ 44705 43249
13	1.6	SJ 44824 43269

(Table 1 – Spreadable area and OSGR)

3. Previous Treatment

The farmer has confirmed FYM land treatments in the previous 12 months (Table 2).

Field	Waste Applied	Application Rate (m3/ha)	Nitrogen kg/ha		Phosphate kg/ha		Potash kg/ha	
			Total	Available	Total	Available	Total	Available
1	FYM	3	18	1.8	9.6	5.7	28.2	25.5
2	FYM	3	18	1.8	9.6	5.7	28.2	25.5
4	FYM	3	18	1.8	9.6	5.7	28.2	25.5
5	FYM	3	18	1.8	9.6	5.7	28.2	25.5
7	FYM	3	18	1.8	9.6	5.7	28.2	25.5
8	FYM	3	18	1.8	9.6	5.7	28.2	25.5
10	FYM	3	18	1.8	9.6	5.7	28.2	25.5
11	FYM	3	18	1.8	9.6	5.7	28.2	25.5
12	FYM	3	18	1.8	9.6	5.7	28.2	25.5
13	FYM	3	18	1.8	9.6	5.7	28.2	25.5

(Table 2 – Previous nutrients applied.)

4. Soil Analysis

Field	Soil Type	Soil pH	Phosphate		Potash		Magnesium	
			mg/l	Index	mg/l	Index	mg/l	Index
1	Loamy Clayey	5.7	43.2	3	151	2-	65.1	2
2	Loamy Clayey	5.8	25.4	2	93.4	1	62	2
4	Loamy Clayey	6.1	16.2	2	91.8	1	48.8	1
5	Loamy Clayey	6.1	26.8	3	159	2-	82.6	2
7	Loamy Clayey	5.5	38.4	3	82.2	1	44.2	1
8	Loamy Clayey	5.6	13.2	1	83.4	1	38.7	1
10	Loamy Clayey	6.1	44.8	3	348	3	63.3	2
11	Loamy Clayey	5.6	44.6	3	134	2-	58.6	2
12	Loamy Clayey	5.8	41	3	178	2-	61.7	2
13	Loamy Clayey	5.8	37.2	3	123	2-	43.3	1

(Table 3 – Soil Analysis Results)

Field Ref	Soil Class	Rainfall (April – September) Wrexham/ mm	Average Altitude /m	Grass Growth Class
1	Medium	418	48	Good
2	Medium	418	48	Good
4	Medium	418	48	Good
5	Medium	418	48	Good
7	Medium	418	48	Good
8	Medium	418	48	Good
10	Medium	418	48	Good
11	Medium	418	48	Good
12	Medium	418	48	Good
13	Medium	418	48	Good

(Table 4 – Growth Grass Class * Rainfall data obtained from climate-data)

The soils were sampled in March 2026 using the techniques set out in the RB209 and were analysed by NRM Ltd for pH, major plant nutrients, and potentially toxic elements (PTEs). The NRM Ltd report is attached to the Appendix and summarised in (Table 3).

Soils were typically found to be Loamy and Clayey (Table 3) and are categorised in accordance with RB209 (9th edition) as medium mineral soils for crop recommendations. The Grass Growth Class is classed as Good (Table 4)

Soil pH

The soil pH ranges from 5.5 to 6.1, which is suitable for grassland but is below the optimal range 6.0 – 6.5. Management practices such as incorporating calcium-rich organic materials (e.g., eggshells) can help support pH stability over time .No negative effects on soil performance are expected at the proposed application rates.

Phosphorus (P)

Soil P Indices across the land ranges from (1–3) (Table 3).

- Index 1: applications will aim to build soil reserves.
- Index 2: applications will be maintenance dressings to maintain target index.
- Index 3: applications will be restricted to crop offtake only, to avoid increasing soil P reserves.

Potassium (K):

Soil K Indices across the land ranges from (1–3)(Table 3)

- Index 1: applications will aim to build K reserves to meet crop need.
- Index 2-: applications will be maintenance dressings.
- Index 3: applications will be restricted to crop offtake only.

Magnesium (Mg)

Soil Mg indices across the land to be spread range from (1 - 2) (Table 3)

At the application rates proposed up to 23.8 kg/ha of magnesium will be applied, no negative impact on crop, soils, or the environment are expected.

Potentially Toxic Elements (PTEs)

Soil PTE concentrations are within acceptable limits for agricultural land.

Waste analysis indicates only trace levels of PTEs.

No negative impacts on soil, crop or the wider environment are expected at the proposed application rates.

5. Crop Details and Nutrient Requirements.

Field	Soil Type	SNS	Current Crop	Next Crop	Expected Yield (t/ha)	Nitrogen kg/ha	Phosphate kg/ha	Potash kg/ha
1	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	170
2	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*65*	210
4	Loamy Clayey	Moderate	2 Cut silage and grazing	2 cut silage and grazing	38	235	*65*	210
5	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	170
7	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	210
8	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*95*	210
10	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	170
11	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	170
12	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	170
13	Loamy Clayey	Moderate	2 Cut silage and grazing	2 Cut silage and grazing	38	235	*20 (offtake 64)*	210

(Table 6 – Crop Recommendations)

Crop recommendations are calculated using RB209 (9th edition) based on a target annual DM yield of 9 – 12 t/ha with offtake values based on grass silage (25% DM).

6. Waste Details and Application Rates

It is proposed to spread two waste materials onto the land, eggshells and poultry effluent sludge (table 7). These wastes arise from food processing activities and consist of crushed eggshells and sludge generated from on-site effluent treatment systems associated with poultry processing.

The wastes have been analysed by NRM Ltd for major plant nutrients, including nitrogen, phosphate and potash full waste analysis in Appendix.

Waste Producer	EWC Code	Description	Physical Form
D Wise Limited, Chester Rd No Man's Heath, Malpas SY14 8DY	02 02 02	Egg shells from hatcheries, processing and similar premises.	Stackable
D Wise Limited, Chester Rd No Man's Heath, Malpas SY14 8DY	02 02 04	Sludge from on-site ETP from poultry preparation plant	Liquid

(Table 7 – Waste Description)

To avoid the need for multiple deployments where waste availability varies over time, both waste streams have been included within this deployment. This approach accounts for variations in the quantity of material produced by the waste producer and the timing of application, for example prior to seedbed preparation or following silage cuts.

Each waste will be applied individually, with applications carefully managed and monitored to ensure that nutrient inputs remain at or below crop nutrient requirements or offtake values, as detailed within this agricultural benefit statement.

As two distinct waste streams are proposed, each provides different agronomic benefits. Application rates are calculated for each waste when applied separately the fields will only have one waste stream applied.

Commercial Waste	Application Rate t/ha	pH	Nitrogen kg/ha		Phosphorous kg/ha		Potassium kg/ha		Magnesium kg/ha	Maximum Tonnage (t)
			Total	Available	Total	Available (50%)	Total	Available (90%)	Total	
D Wise - Egg Shells	31	9.21	166.5	0.9	47.7	23.9	22.9	20.6	132.1	893
D Wise- Liquid	250	9.88	25.00	0.0	5.1	2.6	3.7	3.3	5.0	7200

(Table 9 – Application rate and nutrient inputs)

7. Agricultural benefits potential risks

Agricultural benefit – Eggshells (02 02 02)

A sample of the waste was submitted to NRM Laboratories for analysis of major plant nutrients and potentially toxic elements. Given the nature of the waste, analysis for neutralising value (expressed as CaO and $CaCO_3$ equivalent) was also undertaken. A copy of the laboratory report is included within this application.

Analysis indicates that the eggshells contain a high calcium content (approximately 39.8% Ca) with a $CaCO_3$ equivalent of 69.5%. Although the material is coarsely crushed and therefore reacts more slowly than finely ground agricultural lime, the existing acidic soil conditions are expected to support a measurable long-term liming effect as the calcium carbonate gradually dissolves.

The receiving soils are loamy clay, with pH values ranging from 5.5 to 6.1, which is below the recommended target range of pH 6.0 to 6.5 for grassland, indicating slightly acidic conditions. This soil type has good moisture retention, allowing prolonged contact between soil water, carbon dioxide, and the applied eggshell material.

The site receives over 700 mm of annual rainfall, providing consistent soil moisture. This supports the formation of weak carbonic acid within the soil, which contributes to the gradual dissolution of calcium carbonate ($CaCO_3$). Dissolution is enhanced under acidic and moist soil conditions, such as those present at the site.

As a result, the eggshell material is expected to gradually release calcium and contribute to a slow, sustained liming effect over time. However, due to the coarse particle size, the rate of reaction will be slower, and the full neutralising value may not be realised within a single application period. Repeated applications over successive seasons are therefore likely to provide a cumulative benefit.

This gradual liming effect will help move soil pH toward the target range, improving nutrient availability, supporting root development, and enhancing overall soil structure. In addition, the waste provides modest amounts of nitrogen, phosphorus, potassium, sulphur, and magnesium, along with small quantities of organic membrane material, contributing to soil fertility and biological activity.

Eggshells are classified as Category 3 Animal By-Products, representing a low-risk material. Their application to land as a fertiliser or soil improver is an accepted recovery route under the Animal By-Products Regulations, which include eggs and eggshells as suitable Category 3 materials.

Overall, the material is expected to provide a slow-release source of calcium, contribute to the buffering of soil acidity, and support soil structure, while delivering an appropriate and controlled agricultural benefit.

Effluent Treatment Sludge (02 02 04)

The sludge is produced from the on-site effluent treatment system associated with poultry processing and is classified as absolute non-hazardous under EWC 02 02 04. Laboratory analysis shows that the sludge is highly dilute, with an oven-dry solids content of 0.18%, and contains moderate levels of plant nutrients.

Although nutrient concentrations are moderate, the sludge provides agricultural benefit through the addition of moisture, trace amounts of phosphorus, potassium, sulphur, calcium and sodium, and small quantities of suspended organic matter which support microbial activity.

Macronutrient benefits from wastes

Nitrogen

The analysis showed that the nitrate and ammoniacal nitrogen in the wastes are relatively low indicating low immediate availability of nitrogen. The remaining total nitrogen applied will become available to the crop through mineralisation throughout following seasons as is typical from organic manures and biosolids.

The rate of nitrogen release will be affected by several factors including soil type, climate, and timing and method of application.

Phosphorus

Applications of waste are carefully limited to ensure that phosphate (P) inputs do not exceed crop off-take values as calculated in RB209, preventing an increase in soil P reserves.

The waste being applied provides up to 47.7 kg P/ha, which is below the crop demand.

As a result, the crop will need to draw an additional 16.3 kg P/ha from soil reserves to meet its requirement.

This means that, over the coming season, there will be a small reduction in soil P reserves, helping to manage nutrient levels without further accumulation.

Potash

The waste applied will supply up to 22.9 kg/ha potash which will not meet crop requirement for all fields but will allow the landowner to significantly reduce the amount of chemical fertiliser required to meet the crop need.

The applications of wastes at the proposed application rates will provide nutrients at or below crop requirement or offtake values and will not result in an increase in soil nutrient reserves.

Sulphur

Although soil analysis does not include sulphur, historic trends and widespread experiences indicate that soil S reserves are generally low, primarily due to crop removal and reduced atmospheric deposition. The waste supplies up to 92.4 kg S/ha, providing a substantial source of plant-available sulphur to support crop growth, prevent deficiency, and improve nitrogen use efficiency. Losses to the atmosphere are minimal, so most of this sulphur will remain in the soil and be available to crops.

Magnesium

The soils will benefit from the magnesium up to 132.1 mg/L, as the current soil Mg indices are low (Index 1–2). Increasing the Mg supply will help reduce the risk of hypomagnesaemia in grazing livestock.

Potential Risks and Mitigation – Egg Shells (02 02 02) and Sludge (02 02 04)

Pathogens:

The waste has the potential to contain microbiological pathogens, including Salmonella and Escherichia coli, which could pose a risk to human and animal health if not appropriately managed.

The waste producer D Wise undertakes routine testing for these pathogens on site as part of their ongoing compliance procedures and established quality and hygiene protocols. Where the presence of Salmonella or E. coli is detected, the waste will not be exported from the site for Landspreading and will instead be diverted to an appropriate alternative disposal route.

This approach ensures that only material meeting acceptable microbiological standards is applied to land, thereby minimising the risk to human health, livestock, and the wider environment.

The effluent treatment sludge undergoes screening, clarification and dilution, and has a long history of Landspreading with no pathogen-related issues. A minimum three-week interval will be maintained between application and grazing to minimise residual microbiological risk.

Wind Dispersal: (02 02 02)

The material is composed of crushed, dense shell fragments, which significantly reduces the potential for windblow compared with fine, powdery materials. Spreading will only be undertaken in suitable weather conditions, avoiding high winds.

Runoff/ Ponding (02 02 04)

Due to the low dry-matter content of the sludge, there is a minor risk of ponding if applied to saturated soils. Use of a low-trajectory splash plate reduces this risk by delivering the material in a controlled pattern close to the soil surface, promoting uniform infiltration and preventing excessive surface accumulation.

Odours and Attractants:

The material may contain small traces of membrane, but as a Category 3 ABP with compliance requirements, the risk of nuisance odour or attraction of pests is low.

Storage will be temporary and placed away from sensitive receptors, and spreading will take place in normal agricultural hours, ensuring minimal potential for nuisance.

PTEs:

Analysis of the wastes show they contain extremely low concentrations of PTEs, with most below detection limits, indicating that repeated land application will not result in heavy metal accumulation. The sludge has been safely recycled to land for over six years with no evidence of elevated BOD or adverse impacts. Application by low trajectory splash plate, places the material close to the soil surface, promoting rapid infiltration and minimising leaf

contamination. Combined, these factors ensure the sludge provides a safe, controlled and beneficial soil conditioner. Given these levels, no negative impacts on crops, soil, or the environment are anticipated from the application of the proposed wastes.

FOG analysis from both waste streams shows concentrations <200 mg/kg, indicating very low levels of fats, oils and grease. As a result, FOG-related risks are minimal.

None of the wastes are expected to contain Selenium, Arsenic, Molybdenum, or Fluoride; therefore, testing for these elements has not been conducted.

pH:

The sludge has a pH of 9.88 however, due to the extremely low dry solids content (0.18%) of the sludge and the absence of significant alkaline constituents, the material has negligible neutralising capacity. When applied to soil, it behaves similarly to slightly alkaline process water. Loamy clay soils have strong buffering capacity, and the quantities applied are far too low to influence soil pH. Therefore, no measurable change to the receiving soil pH (5.5–6.1) is expected as a result of the application of sludge.

In contrast to the sludge, the eggshells comprise predominantly calcium carbonate and therefore possesses a liming value. Although the material has a measured pH of 9.2, its influence on soil pH is governed by its neutralising capacity rather than its pH alone.

Eggshells are relatively coarse and slow to break down in soil. As a result, any liming effect will occur gradually over time as the material weathers and reacts within the soil matrix.

Given the proposed application rates and the buffering capacity of the receiving loamy clay soils, no rapid or excessive increase in soil pH is anticipated. Instead, the application of eggshells is expected to contribute to a gradual increase in soil pH over successive seasons, which will be beneficial where soils are currently slightly acidic (pH 5.5–6.1)

8. Delivery and Application method and timings.

The Eggshells will be delivered to site in tractor trailer and delivered to the agreed fields heaps. The eggshells will be applied up using a rear discharge spreader. The Liquid sludge will be delivered via tractor tanker and applied using a rear mounted shallow disc injector.

Timings of Application

The timing of nutrient applications will depend on suitable ground conditions, weather, soil temperature, and the crop's growth stage to ensure the most effective use of the applied nutrients while minimizing crop damage.

For the grass fields, which are used for silage and grazing, the fields are expected to remain in grass for the near future. Nutrient applications will be made during the following optimal periods:

Before the growing season and between cuts or grazing (Table 7), applications will occur when the leaf height is short to minimize damage to the grass and to ensure that nutrients are available during the active growth period of the crop.

Each field will be treated once, with spreading to be conducted in the following windows:

Spreading Timing
February/March 2027 – Before the growing season.
May/June 2026 – After the 1st cut of silage
July -October 2026 – After the 2nd silage cut.

There is potential for nutrient loss, odour generation or crop scorch if spreading occurs outside appropriate agronomic conditions.

To minimise these risks:

A minimum 3-week interval will be maintained between spreading and grazing.

Spreading will be avoided during excessively dry conditions.

The proposed timing aligns with crop nutrient uptake and minimises environmental risk.

Wastes will be recovered in a manner that ensures no harm to human health or the environment, spreading will also comply with COGAP.

9. Storage Details

The Eggshells will be transported by tractor trailer and stored in temporary field heaps. stockpile locations have been designated at the end of Fields, close to the field gateways, to minimize vehicle travel and reduce unnecessary soil compaction during delivery. Factors such as topography, proximity to

watercourses, and other sensitive receptors were also considered in determining the locations. Only the eggshells will be stockpiled, and a maximum of 893 t will be stored across the deployment as a whole.

An impermeable farm Lagoon is available for use and will be empty and cleaned before use. If any waste is to be stored in the lagoon it will be on a temporary basis prior to spreading to ensure enough product is available to the farmer or short term when spreading is not suitable i.e. adverse weather/field conditions. Only the liquid sludge will be stored in the lagoon with maximum of 800 tonnes of liquid sludge will be stored at any one time across the deployment, with only the waste intended for this deployment kept on-site.

The site plan attached as an appendix shows the fields to be spread, storage locations (Table 9) and also shows sensitive receptors and spreading control areas.

Stockpiles will not be positioned within 10 m of any watercourse, ditch, or drain, nor placed on steep embankments.

Description	Grid Reference	Maximum storage/tonnes (at any one location)
Lagoon	SJ 44260 43590	800
Field Heap	SJ 44638 43564	893
Field Heap	SJ 44939 43182	893

(Table 9 – Storage Locations)

10. Site Specific Environmental Constraints

10.1 Designated Sites (SSSI, SAC, SPA and Ramsar)

The proposed spreading area is located within 500 m of a Site of Special Scientific Interest (SSSI) (Well Rough and Long Plantation) approximately 490m North-East of field 10.

Given the distance from any designated site, there is no plausible pathway for significant impact on the SSSI site.

A SSRA is attached as an appendix the residual risk to the SSSI is considered low.

10.2 Other designated environmentally sites

Scheduled Monuments:

The proposed spreading area is located within 500m of a scheduled monument (Tallarn Green Moated Site) NW of field 7. A no spread zone has been implemented over the Tallarn Green Scheduled Monument (clearly shown on the site plan) to ensure protection of the buried archaeological remains. Cadw confirms it contains significant below-ground deposits and has already been reduced by historic ploughing, making it highly sensitive to disturbance. As required under Scheduled Monument regulations, any activity that could affect the ground surface including machinery movements or soil impact must be avoided, so the no-spread buffer ensures we comply with legal protections and prevent any damage to the monument.

Protected Habitats:

The proposed spreading area is located within 500m of a protected habitat these are:

Traditional Orchards the closest borders field 10, a 10 m buffer has been implemented and clearly shown on the site plan.

Purple Moor Grass and Rush Pastures are approximately 220m from field 1 and another 458m from field 10.
Given the distance from the designated site, there is no plausible pathway for significant impact of the priority habitats.

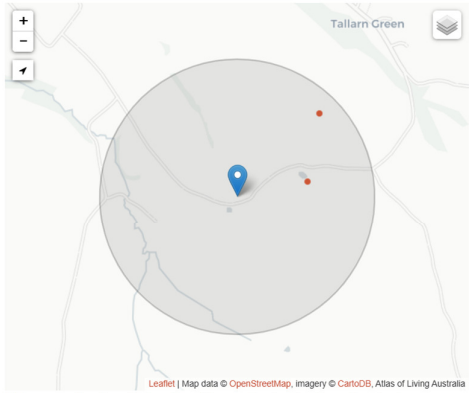
Protected Species:

Protected species have been identified within 500m of the spreading area.

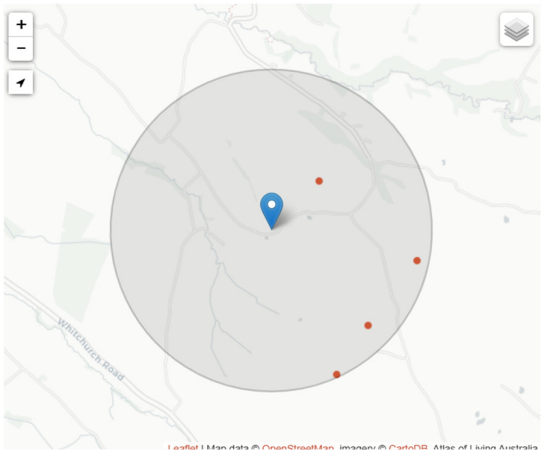
A review of ecological data shows a historic Great Crested Newt (GCN) record from 2008, observations have been recorded within Field 2, and another observation recorded approximately 220 metres east of field 11 (with no feasible pathway), with no more recent observations identified. Given the age of this record and the lack of contemporary evidence of GCN presence, the risk to this species is considered low. However, as a precaution, a 10 m buffer will be

maintained around all hedgerows, woodland edges, and ponds to avoid disturbance to potential amphibian habitat and movement corridors. Pre-site checks will also be conducted before each spreading event, including a visual inspection of field margins, wet areas, and any features likely to support amphibians. If any Great Crested Newts or amphibians suspected to be GCN are observed, all spreading activities will stop immediately, and further advice will be sought prior to resuming operations. This precautionary approach ensures compliance with protected species requirements.

	Common Name	Species	Records
1.	Great Crested Newt	*Triturus cristatus*	2
2.	Dilated Scalewort	*Frullania dilatata*	1
3.	Whiskered Veilwort	*Metzgeria consanguinea*	1
4.	Forked Veilwort	*Metzgeria furcata*	1
5.	Even Scalewort	*Radula complanata*	1



(screenshot showing protected species within 500m of the spreading site, NBN Atlas Wales)



(screenshot showing Great Crested Newt – East of field 11)

Ancient Woodland:

An ancient woodland borders field 1, a 10-metre buffer has been implemented, with no travelling or machinery movement permitted within the woodland. This protects the sensitive woodland habitats and nearby designated wildlife features, ensuring there is no soil compaction, disturbance, or nutrient impact on the ancient woodland.

10.2 Surface Water Protection

Several ponds are located within and adjacent to the proposed spreading fields, as shown on the site plan. Although the fields are predominantly flat and well drained, there is potential for nutrient-rich runoff to enter nearby surface waters during heavy rainfall events.

To mitigate this risk:

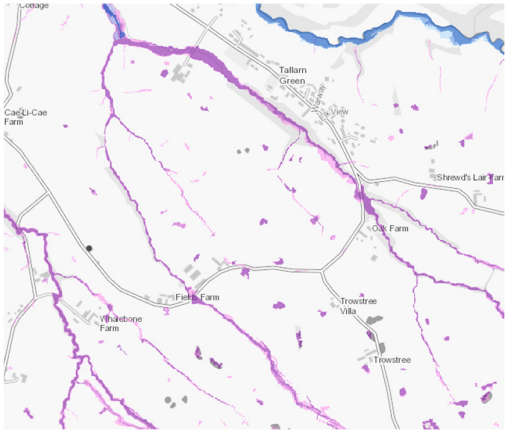
- A minimum 10 m no-spread buffer will be maintained adjacent to all ponds, ditches, drains and watercourses.
- Spreading will not occur on saturated, frozen or snow-covered ground.
- Applications will be made in accordance with crop nutrient requirements and agreed deployment rates.
- Field conditions will be assessed prior to spreading to ensure soil trafficability and minimise runoff risk.

- Weather forecasts will be monitored prior to and during spreading operations to avoid application before significant rainfall events.
- Spreading will be undertaken in accordance with industry best practice and the Code of Good Agricultural Practice (Cogap).

With these controls in place, the residual risk to surface water is considered low.

10.3 Groundwater Protection

No springs, boreholes, or wells are present within the spreading area. The soils are well-drained, reducing the risk of surface runoff and waterlogging. The site is not located within Flood Zone; however, areas adjacent to the watercourse are identified as having a medium to high risk (Map 2) of surface water flooding. To mitigate this risk, a 10 m buffer zone has been established around all watercourses, where no spreading will occur.



(Map 2 – Flood Risk)

10.5 Odour and Amenity's

Several residential properties are located within 250 m of the proposed spreading areas. There is potential for temporary odour nuisance during spreading operations.

These properties are:

Lincluden is situated approximately 79m SE of 11

Trowstree Villa borders 11 and 13 a 10m buffer has been implemented and clearly shown on the site plan.

Hurdle View borders 10 a 10m buffer has been implemented and clearly shown on the site plan.

Lane Farm approximately 50m East of 10.

Oak farm approximately 13m east of 8.

Field Farm is located approximately 20 m from Fields 4 and 5. This property is owned by the farm operator and forms part of the main holding included within this deployment application. As such, it is not considered a sensitive receptor, and no buffer zones are deemed necessary in this instance.

The Old Rectory is approximately 75m North of 1.

Borderbrook School is approximately 80m n of field 1.

Tennis courts and Hall are approximately 125m N of field 7.

St Mary Magdalene Church is approximately 100m North of 1.

Properties within 250m of storage locations:

Fields Farm is the closest property to the Lagoon.

Trowstree Villa is approximately 178m from Field Heap 7.

Trowtree is approximately 60m from field heap 11.

The properties listed above represent the closest and most sensitive receptors identified within 250 m of the proposed spreading areas and storage locations. This list is not exhaustive; however, it is considered representative of the nearest receptors with the greatest potential to be affected by odour or amenity impacts. All properties within a 250m radius are clearly marked and shown on the site plan.

Odour and Noise Mitigation

To minimize odour and noise impact:

- Application via disk injection will reduce odour emissions.
- Tractor tankers will be used for loading/unloading to control odour caused by air movement.
- Deliveries will be scheduled during normal agricultural working hours to reduce disruption.
- Avoidance of spreading during meteorological conditions likely to increase odour travel.
- 10m buffer to be applied to any properties bordering proposed spreading fields.
- Storage will be kept to a minimum, with the lagoon emptied at the end of each day where practicable.

Any odour impacts are expected to be temporary and localised. The overall risk is considered low.

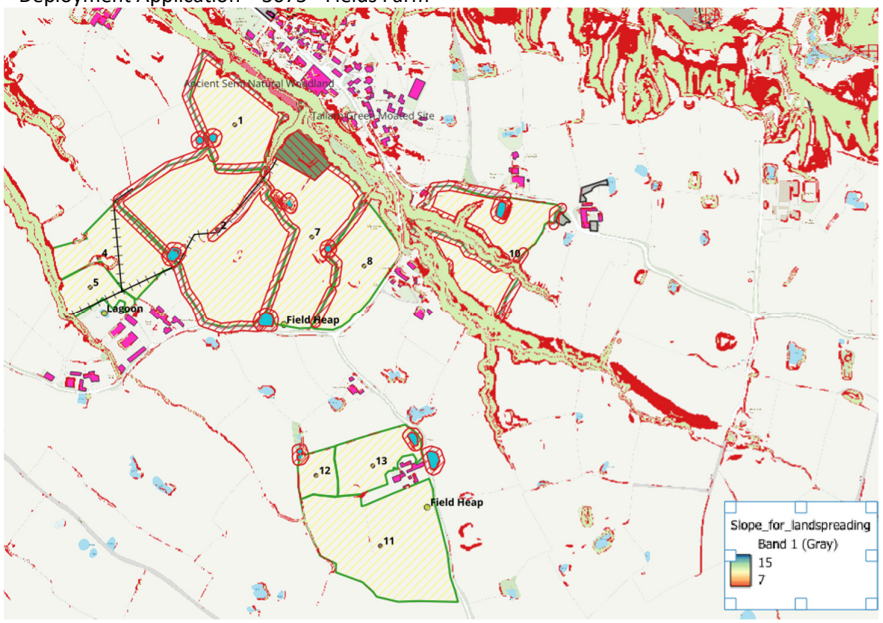
A full Odour Management Plan has been submitted as part of the deployment application.

Footpaths:

Theres a footpath crossing field 4 and field 2 and also another footpath bordering field 5, care will be taken when spreading and will follow cogap.

11. Field slopes

Map 3 shows there are no slopes above 7° in the proposed spreading area, this has been verified by NRW slope layer.



(Map 3 showing slope gradient degrees)

12. Water resources Compliance

The site is subject to The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021, and these regulations will be adhered to.

Wastes are exempt from the closed period, as they contain low percentages of available nitrogen.

12. Groundwater Source Protection Zones

All fields are outside any Source Protection Zone (SPZ)

13. Operational Conditions

Wastes will only be spread under appropriate weather and field conditions and conditions and will be continually monitored to prevent adverse environmental impacts.

All spreading activities will comply with the Code of Good Agricultural Practice (COGAP).

14. Contingency Planning

In the event of machinery breakdown or failure, mobile mechanics are available to attend sites and replacement vehicles, and equipment are available or can be hired from current suppliers.

There are number of sufficiently trained staff to maintain general sickness and holiday cover.

During prolonged periods of adverse weather, planned spreading may be postponed or cancelled. An extensive landbank throughout Northwest/North Wales allows vehicles to be re-routed if conditions become unsuitable for spreading.

Supporting documents

Appendix A – Site Plan
Appendix B – Soil Analysis
Appendix C – Waste Analysis
Appendix D – SSRA
Appendix E – Odour Management Risk assessment