

# Statement of Agricultural Benefit

## – Arnolds Hill Farm



**Applicant:** Mr Daniel James and Mrs Carys James (Stepside Agricultural Contractors)  
**Permit:** SR2010 No4: mobile plant for land-spreading  
**Permit number:** EPR/AB3891CX

### Agricultural benefit statement is prepared by:

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This agricultural benefit statement has been prepared based on information provided by Stepside Agricultural Contractors. It is made on the understanding that all information provided is correct and representative of the fields to which the material is to be applied and of the waste material to be applied.

### Farm address:

Arnolds Hill Farm, Slebech, Haverfordwest, Pembrokeshire, SA62 4BA

### Wastes to be applied:

Waste Code	Waste Description	Physical Form	Waste Producer
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Bolton Hill WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Preseli WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Llechryd WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Strata Florida WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Bontgoch WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Bryngwyn WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Capel Dewi WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Cray WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Hirwaun WTW
19 09 02	Sludge from water clarification	Liquid sludge	Dwr Cymru Welsh Water Cefn Dryscoed WTW

## Application:

- The fields will be spread with liquid sludge up to 50t/ha prior to cultivations and planting of the forage maize crops in March – June 2026. The fields will then be spread again with liquid sludge up to 50t/ha into the growing crops in April – July 2026. The waste will be soil incorporated as soon as possible and within 24 hours where spread prior to cultivations and planting of the forage maize crops.
- Spreading of the waste will be carried out in accordance with the Code of Good Agricultural Practice, The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 and in accordance with the requirements of the deployment and Environmental Permitting Regulations.
- NRW will be informed at least 48 hours prior to any spreading commencing and no spreading will occur within 48 hours of forecasted heavy rainfall.
- The liquid sludges will be discharged into temporary storage nurse tanks ('holding tanks') prior to spreading. Liquid sludge is spread from a nurse tank onto the deployed fields at the required timings as stated above. Spreading is by either umbilical method with the liquid delivered to tractor in deployed fields pumped through hose and spread by dribble bar applicator mounted onto the back of the tractor, or a tractor and vacuum tanker with dribble bar applicator. The dribble bar applicator places the liquid in bands onto the surface of the ground. This spread method is effective in limiting odour generation & nutrient losses associated with higher trajectory spread methods such as splash plate. Spreading is undertaken with the use of flow meters to ensure correct rates are applied.
- Should the ground or weather conditions mean it's unsuitable for spreading then temporary storage of liquid sludges in nurse tanks may be required. These potential locations are detailed on the attached field maps & within the LPD1 form.
- The nurse tanks do not have secondary containment, but are impermeable purpose built AW Trailers alloy nurse tanks featuring internal bracing, an anti-corrosive interior coating, designated fill and empty valves that can be shut by gate valves. These valves can be locked off in the event of temporary overnight temporary storage if the tanks contains liquid to ensure secure temporary storage. The tanks are only for temporary storage and are normally rarely in use other than just prior to or when spreading activity is being undertaken. In most cases the nurse tanks are unlikely to contain liquid overnight. The tanks fill from the top via internal pipework with a 'swanneck' reducing chances off any spills when decoupling connecting pipes after filling. The empty valve allows the tanks to be completely emptied to the bottom. The tanks are sealed with roof to prevent rainwater entering the tank and for safety, and can be vented if required. A hydraulic lifting axle in the middle allows the tanks to positioned and lowered, then locked into position so the whole tank is on the ground.
- The nurse tanks will be completely empty before use. Only liquid sludges as specified in this deployment will be stored in the nurse tanks.
- The maximum application rate in Table 1 for each field will be split into two applications. Each individual application will not exceed 50t/ha in any one application to a field.
- The liquid water clarification sludges may be applied separately or in combination.
- The maximum application rates for each field listed in Table 1 apply to an individual waste being applied to a field and have been made on a field by field basis using The Nutrient Management Guide (RB209).

## Benefits from waste application:

- The analysis and nutrient content of the wastes are shown in the waste analysis attachments.
- The wastes are a source of nitrogen, phosphate, potassium & sulphur. The wastes can be beneficially used to replace a proportion of bagged mineral fertiliser.
- The risk of sulphur deficiency has been estimated as 'High' based on the soil texture and expected winter rainfall (RB209). The crop requirements are approx. 25kg SO<sub>3</sub>/ha. The amount of available sulphur supplied by the wastes at the proposed maximum application rates is 2-7kg SO<sub>3</sub>/ha.
- The addition of organic matter to the soil will help improve soil structural stability, biological activity, water and nutrient holding capacity i.e. resistance to drought, and reduction of localised flooding, reduced leaching of nutrients, and improved workability in soil.

## Materials applied in previous 12 months:

The fields within this deployment application have received the rates (t/ha) of materials as in 'Table 4 - Previous Land Treatment' within the previous 12 months.

It's considered that the nutrients applied from these applications were for the requirements of the previous crops before the material within this deployment is applied for the next crops.

## Nutrients supplied by this application:

The maximum application rates of each of the DCWW liquid water clarification sludges applied on their own to a field are shown in Table 1 and are listed below:

Rates of application (t/ha)	Nitrogen kg/ha		Phosphate (P <sub>2</sub> O <sub>5</sub> ) kg/ha		Potash (K <sub>2</sub> O) kg/ha		Magnesium (MgO) kg/ha		Sulphur (SO <sub>3</sub> ) kg/ha	
	Total	Available	Total	Available	Total	Available	Total	Available	Total	Available
DCWW Bolton Hill WTW liquid sludge @ 100 t/ha	40	4	27	5	3	1	8	2	51	5
DCWW Preseli WTW liquid sludge @ 100 t/ha	28	3	27	5	2	0	4	1	41	4
DCWW Llechryd WTW liquid sludge @ 100 t/ha	30	3	39	8	2	0	4	1	24	2
DCWW Strata Florida WTW liquid sludge @ 100 t/ha	33	3	27	5	2	0	1	0	39	4
DCWW Bontgoch WTW liquid sludge @ 50 t/ha	25	3	38	8	1	0	3	1	17	2
DCWW Bryngwyn WTW liquid sludge @ 100 t/ha	33	3	27	5	2	0	6	1	36	4
DCWW Capel Dewi WTW liquid sludge @ 100 t/ha	26	3	27	5	2	0	9	2	27	3
DCWW Cray WTW liquid sludge @ 100 t/ha	24	2	27	5	2	0	3	1	20	2
DCWW Hirwaun WTW liquid sludge @ 100 t/ha	27	3	27	5	2	0	2	0	67	7
DCWW Cefn Dryskoed WTW liquid sludge @ 100 t/ha	28	3	27	5	2	0	2	0	41	4
Estimated Availability	10%		20%		20%		20%		10%	

### Application of wastes in combination:

When different liquid water clarification sludges are applied to the same field the maximum application rates will be set so that for the total combined amount applied the total nitrogen loading will be less than 250 kg/ha, and the amount of available nitrogen and total or available phosphate and potash (whichever is appropriate) will not exceed the fertiliser recommendation or the amount removed in crop offtake (as listed in Table 1), whichever is the greater, and PTEs applied will remain below annual addition limits. The total application rate will also not exceed 100t/ha as only 2 separate applications of up to 50t/ha are being applied.

The following example shows the maximum rate of application and nutrient content where 50 t/ha DCWW Bolton Hill WTW liquid water clarification sludge and 50 t/ha Preseli WTW liquid water clarification sludge are both spread on a field. (No more than 50 t/ha of liquid water clarification sludge spread in a single application)

Example:

	Rate of application (t/ha)	Nitrogen kg/ha		Phosphate (P <sub>2</sub> O <sub>5</sub> ) kg/ha		Potash (K <sub>2</sub> O) kg/ha		Magnesium (MgO) kg/ha		Sulphur (SO <sub>3</sub> ) kg/ha	
		Total	Available	Total	Available	Total	Available	Total	Available	Total	Available
DCWW Bolton Hill WTW liquid sludge	50	20	2	13	3	2	0	4	1	26	3
DCWW Preseli WTW liquid sludge	50	14	1	13	3	1	0	2	0	21	2
<b>TOTAL</b>	<b>100</b>	<b>34</b>	<b>3</b>	<b>26</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>47</b>	<b>5</b>

**Table 1: Field, Soil & Cropping Details, Fertiliser Recommendations and Application Rates**

Field Ref.	Soil Type	Spreadable Area (ha)	Previous Crop	Next Crop	Nitrogen		Phosphate			Potash			Magnesium	
					SNS	N Required (kg/ha)	P Index	P <sub>2</sub> O <sub>5</sub> Required (kg/ha)	Crop Use (Offtake) (kg/ha)	K Index	K <sub>2</sub> O Required (kg/ha)	Crop Use (Offtake) (kg/ha)	Mg Index	MgO Required (kg/ha)
ARNOLDS HILL 1	Medium soils	4.20	Grass grazing	Forage maize	1	100	2	62	63	2+	167	198	2	0
ARNOLDS HILL 2	Medium soils	5.20	Grass grazing	Forage maize	1	100	2	62	63	2+	167	198	2	0
ARNOLDS HILL 3	Medium soils	3.70	Grass grazing	Forage maize	1	100	2	62	63	1	227	198	2	0
ARNOLDS HILL 4	Medium soils	5.30	Grass grazing	Forage maize	1	100	2	62	63	2-	197	198	2	0
ARNOLDS HILL 5	Medium soils	6.10	Grass grazing	Forage maize	1	100	2	62	63	2-	197	198	2	0
ARNOLDS HILL 6	Medium soils	3.10	Grass grazing	Forage maize	1	100	2	62	63	2+	167	198	2	0
ARNOLDS HILL 7	Medium soils	4.00	Grass grazing	Forage maize	1	100	2	62	63	2+	167	198	2	0
ARNOLDS HILL 8	Medium soils	3.80	Grass grazing	Forage maize	1	100	3	20	63	2+	167	198	2	0
ARNOLDS HILL 9	Medium soils	3.20	Grass grazing	Forage maize	1	100	2	62	63	2-	197	198	2	0
ARNOLDS HILL 10	Medium soils	3.20	Grass grazing	Forage maize	1	100	2	62	63	3	132	198	2	0
ARNOLDS HILL 11	Medium soils	4.70	Grass grazing	Forage maize	1	100	2	62	63	2+	167	198	2	0
ARNOLDS HILL 14	Medium soils	1.40	Grass grazing	Forage maize	1	100	1	92	63	2+	167	198	2	0
ARNOLDS HILL 15	Medium soils	2.10	Grass grazing	Forage maize	1	100	2	62	63	2-	197	198	2	0
<b>TOTAL</b>		<b>50.00</b>												

Nutrient requirements based on:  
Forage maize 45t FW/ha silage (30% DM)

Field Ref.	Dwr Cymru Welsh Water Bolton Hill WTW - liquid water clarification sludge						Dwr Cymru Welsh Water Preseli WTW - liquid water clarification sludge						Dwr Cymru Welsh Water Llechryd WTW - liquid water clarification sludge					
	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes
ARNOLDS HILL 1	**4	*27	*3	*8	100	420	**3	*27	*2	*4	100	420	**3	*39	*2	*4	100	420
ARNOLDS HILL 2	**4	*27	*3	*8	100	520	**3	*27	*2	*4	100	520	**3	*39	*2	*4	100	520
ARNOLDS HILL 3	**4	*27	**1	*8	100	370	**3	*27	**0	*4	100	370	**3	*39	**0	*4	100	370
ARNOLDS HILL 4	**4	*27	*3	*8	100	530	**3	*27	*2	*4	100	530	**3	*39	*2	*4	100	530
ARNOLDS HILL 5	**4	*27	*3	*8	100	610	**3	*27	*2	*4	100	610	**3	*39	*2	*4	100	610
ARNOLDS HILL 6	**4	*27	*3	*8	100	310	**3	*27	*2	*4	100	310	**3	*39	*2	*4	100	310
ARNOLDS HILL 7	**4	*27	*3	*8	100	400	**3	*27	*2	*4	100	400	**3	*39	*2	*4	100	400
ARNOLDS HILL 8	**4	*27	*3	*8	100	380	**3	*27	*2	*4	100	380	**3	*39	*2	*4	100	380
ARNOLDS HILL 9	**4	*27	*3	*8	100	320	**3	*27	*2	*4	100	320	**3	*39	*2	*4	100	320
ARNOLDS HILL 10	**4	*27	*3	*8	100	320	**3	*27	*2	*4	100	320	**3	*39	*2	*4	100	320
ARNOLDS HILL 11	**4	*27	*3	*8	100	470	**3	*27	*2	*4	100	470	**3	*39	*2	*4	100	470
ARNOLDS HILL 14	**4	**5	*3	*8	100	140	**3	**5	*2	*4	100	140	**3	**8	*2	*4	100	140
ARNOLDS HILL 15	**4	*27	*3	*8	100	210	**3	*27	*2	*4	100	210	**3	*39	*2	*4	100	210
<b>TOTAL</b>						<b>5000</b>						<b>5000</b>						<b>5000</b>

**Table 1: Field, Soil & Cropping Details, Fertiliser Recommendations and Application Rates (continued)**

Field Ref.	Dwr Cymru Welsh Water Strata Florida WTW - liquid water clarification sludge						Dwr Cymru Welsh Water Bontgoch WTW - liquid water clarification sludge						Dwr Cymru Welsh Water Bryngwyn WTW - liquid water clarification sludge					
	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes
ARNOLDS HILL 1	**3	*27	*2	*1	100	420	**3	*38	*1	*3	50	210	**3	*27	*2	*6	100	420
ARNOLDS HILL 2	**3	*27	*2	*1	100	520	**3	*38	*1	*3	50	260	**3	*27	*2	*6	100	520
ARNOLDS HILL 3	**3	*27	**0	*1	100	370	**3	*38	**0	*3	50	185	**3	*27	**0	*6	100	370
ARNOLDS HILL 4	**3	*27	*2	*1	100	530	**3	*38	*1	*3	50	265	**3	*27	*2	*6	100	530
ARNOLDS HILL 5	**3	*27	*2	*1	100	610	**3	*38	*1	*3	50	305	**3	*27	*2	*6	100	610
ARNOLDS HILL 6	**3	*27	*2	*1	100	310	**3	*38	*1	*3	50	155	**3	*27	*2	*6	100	310
ARNOLDS HILL 7	**3	*27	*2	*1	100	400	**3	*38	*1	*3	50	200	**3	*27	*2	*6	100	400
ARNOLDS HILL 8	**3	*27	*2	*1	100	380	**3	*38	*1	*3	50	190	**3	*27	*2	*6	100	380
ARNOLDS HILL 9	**3	*27	*2	*1	100	320	**3	*38	*1	*3	50	160	**3	*27	*2	*6	100	320
ARNOLDS HILL 10	**3	*27	*2	*1	100	320	**3	*38	*1	*3	50	160	**3	*27	*2	*6	100	320
ARNOLDS HILL 11	**3	*27	*2	*1	100	470	**3	*38	*1	*3	50	235	**3	*27	*2	*6	100	470
ARNOLDS HILL 14	**3	**5	*2	*1	100	140	**3	**8	*1	*3	50	70	**3	**5	*2	*6	100	140
ARNOLDS HILL 15	**3	*27	*2	*1	100	210	**3	*38	*1	*3	50	105	**3	*27	*2	*6	100	210
<b>TOTAL</b>						<b>5000</b>						<b>2500</b>						<b>5000</b>

Field Ref.	Dwr Cymru Welsh Water Capel Dewi WTW - liquid water clarification sludge						Dwr Cymru Welsh Water Cray WTW - liquid water clarification sludge						Dwr Cymru Welsh Water Hirwaun WTW - liquid water clarification sludge					
	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes
ARNOLDS HILL 1	**3	*27	*2	*9	100	420	**2	*27	*2	*3	100	420	**3	*27	*2	*2	100	420
ARNOLDS HILL 2	**3	*27	*2	*9	100	520	**2	*27	*2	*3	100	520	**3	*27	*2	*2	100	520
ARNOLDS HILL 3	**3	*27	**0	*9	100	370	**2	*27	**0	*3	100	370	**3	*27	**0	*2	100	370
ARNOLDS HILL 4	**3	*27	*2	*9	100	530	**2	*27	*2	*3	100	530	**3	*27	*2	*2	100	530
ARNOLDS HILL 5	**3	*27	*2	*9	100	610	**2	*27	*2	*3	100	610	**3	*27	*2	*2	100	610
ARNOLDS HILL 6	**3	*27	*2	*9	100	310	**2	*27	*2	*3	100	310	**3	*27	*2	*2	100	310
ARNOLDS HILL 7	**3	*27	*2	*9	100	400	**2	*27	*2	*3	100	400	**3	*27	*2	*2	100	400
ARNOLDS HILL 8	**3	*27	*2	*9	100	380	**2	*27	*2	*3	100	380	**3	*27	*2	*2	100	380
ARNOLDS HILL 9	**3	*27	*2	*9	100	320	**2	*27	*2	*3	100	320	**3	*27	*2	*2	100	320
ARNOLDS HILL 10	**3	*27	*2	*9	100	320	**2	*27	*2	*3	100	320	**3	*27	*2	*2	100	320
ARNOLDS HILL 11	**3	*27	*2	*9	100	470	**2	*27	*2	*3	100	470	**3	*27	*2	*2	100	470
ARNOLDS HILL 14	**3	**5	*2	*9	100	140	**2	**5	*2	*3	100	140	**3	**5	*2	*2	100	140
ARNOLDS HILL 15	**3	*27	*2	*9	100	210	**2	*27	*2	*3	100	210	**3	*27	*2	*2	100	210
<b>TOTAL</b>						<b>5000</b>						<b>5000</b>						<b>5000</b>

**Table 1: Field, Soil & Cropping Details, Fertiliser Recommendations and Application Rates (continued)**

Dwr Cymru Welsh Water Cefn Dryscoed WTW - liquid water clarification sludge						
Field Ref.	N Applied - Waste (kg/ha)	P <sub>2</sub> O <sub>5</sub> Applied - Waste (kg/ha)	K <sub>2</sub> O Applied - Waste (kg/ha)	MgO Applied - Waste (kg/ha)	Application Rate (t/ha)	Total Tonnes
ARNOLDS HILL 1	**3	*27	*2	*2	100	420
ARNOLDS HILL 2	**3	*27	*2	*2	100	520
ARNOLDS HILL 3	**3	*27	**0	*2	100	370
ARNOLDS HILL 4	**3	*27	*2	*2	100	530
ARNOLDS HILL 5	**3	*27	*2	*2	100	610
ARNOLDS HILL 6	**3	*27	*2	*2	100	310
ARNOLDS HILL 7	**3	*27	*2	*2	100	400
ARNOLDS HILL 8	**3	*27	*2	*2	100	380
ARNOLDS HILL 9	**3	*27	*2	*2	100	320
ARNOLDS HILL 10	**3	*27	*2	*2	100	320
ARNOLDS HILL 11	**3	*27	*2	*2	100	470
ARNOLDS HILL 14	**3	**5	*2	*2	100	140
ARNOLDS HILL 15	**3	*27	*2	*2	100	210
<b>TOTAL</b>						<b>5000</b>

\* Total nutrient content of waste used on P, K or Mg index 2 or above

\*\* Available nutrient content of waste used on P, K or Mg index 0 or 1

The assumed availability of total nutrients in the DCWW sludges are N 10%, P<sub>2</sub>O<sub>5</sub> 20%, K<sub>2</sub>O 20%, MgO 20%, SO<sub>3</sub> 10%

## Potential negative impacts from this application and mitigation measures planned:

### Waste composition & receiving soils

- Potentially Toxic Elements: The supplied concentrations at the proposed application rates are all lower than the maximum permissible levels detailed in the Sludge (Use in Agriculture) Regulations for biosolids applied to agricultural land, which is believed to be a suitable comparison for wastes applied to agricultural land.
- Physical contaminants: The wastes are produced by managed processes. The wastes do not contain physical contaminants.
- Dwr Cymru Welsh Water Bontgoch, Cray, Hirwaun, Bryngwyn, Capel Dewi and Llechryd water treatment works use iron-based coagulants to condition the water. The sludges will only be spread on fields with a soil pH of 5.5 or above.
- Dwr Cymru Welsh Water Bolton Hill, Preseli, Strata Florida & Cefn Dryskoed water treatment works use aluminium-based coagulants to condition the water. The liquid sludges & sludge cake will only be spread on fields with a soil pH of 6.0 or above.
- The pH of the receiving soils ranges from pH 6.1 to 6.9.
- Soils have been sampled to 15cm depth with a 'half cheese' corer soil sampler walking a 'W' pattern across each field collecting approx. 25 sub samples per field.
- Receiving soils have been analysed and are suitable for application at the proposed application rates.

### Operations

The fields in this deployment have been designated as 'medium risk' following site checks on the proximity to surrounding protected areas (e.g. SSSIs) and groundwater source protection zones. On the basis of 'medium risk' the proposed operation will be subject to the generic risk assessment for deploying mobile plant under a SR2010 No.4. The potential risks associated with the application of waste on this deployment have been identified as;

- Potential run-off after application: The waste will be applied following the Code of Good Agricultural Practice. The maximum application rate for each field will be split into two applications and will not exceed 50t/ha in any one application to a field. The fields will be spread using precision spreading dribble bar equipment with no spreading areas enforced as per maps.
- All handling of the wastes will be in accordance to current regulations and relevant mitigation strategies will be adopted.
- The Dwr Cymru Welsh Water liquid water clarification sludges are considered to have no noticeable odour.
- Spillages: all spillages will be reported immediately to NRW.
- No waste will be spread within 10m of any ditch, pond or surface water, within 50m of any spring, well, borehole, or reservoir that supplies water for human consumption or farm dairies.
- The sludge will be spread on delivery or temporarily securely stored as stated above.
- Operators will aim to empty spreading equipment before the end of each working day to avoid overnight storage of waste in machinery.
- Regular servicing of all machinery is conducted and spreading equipment is annually calibrated. To prevent waste being held in faulty machinery replacement spreading equipment will be available.
- Spreading machinery will travel over the field in a direction which will most easily allow the machinery to turn within the boundaries of the field. Spreading equipment will be turned off prior to turning at the end of each run.

- Machinery turns will be routed to avoid rutting and wheel slip. The turns will not be executed on any buffer strips.
- There will be sufficient trained staff available to ensure that the operation continues throughout operational hours (i.e. there will be sufficient cover for illness, holiday etc.).
- Rights of way have been marked on the spread risk maps. There's a public right of way through field Arnolds Hill 11. The liquid sludge will be spread and soil incorporated as soon as practicable with the footpath reinstated where spread prior to cultivations and planting of the forage maize.
- Weather conditions will be monitored prior to spreading with wind speed and direction assessed.
- Consideration for the public and local residential receptors will be taken into account.

**Signed:** Robert Tucker

**Date:** 05/02/2026