
Ammonia Report

Erection of an intensive poultry unit and all associated works

On behalf of D J Huxley Farms

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land & property
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Introduction

It is proposed to erect an intensive poultry unit at land at Mulsford Farm to accommodate a maximum of 100,000 birds.

The purpose of this report is to explain and examine if the proposed development will have any impact on the ecological interest of the area. Particular note is given to the levels of ammonia which shall arise from the proposed poultry unit at land at Mulsford Farm.

Location

The proposed development is located on the outskirts of the village of Tallarn Green. The development is approximately 630 metres away from Mulsford Farm.

Environmental Sites

Within a 10km radius of the application site, there are 14 environmental sites, ranging from 1.8km to 9.8km away from the proposed site:

	Region	Site Name	Site Code	Designation Status	Distance from Installation (m)	Sensitive Habitats
1.	Wales	Well Rough & Long Plantation	1951	SSSI	1815	Sensitive Habitat
2.	Wales	Afon Dyfrdwy (River Dee)	5260	SSSI	2718	Sensitive Habitat
3.	Wales	River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid	UK0030252	SAC	2991	Sensitive Habitat
4.	Wales	River Dee (England)	4106	SSSI	4158	Non-sensitive Habitat
5.	Wales	Cloy Brook Pastures	4228	SSSI	4485	Sensitive Habitat
6.	Wales	Hanmer Mere	6203	SSSI	5428	Sensitive Habitat
7.	Wales	Taylor's Rough & Wellmeadow Wood	1974	SSSI	5450	Sensitive Habitat
8.	Wales	Llyn Bedydd	6140	SSSI	6569	Non-sensitive Habitat
9.	Wales	Fenn's I Whixall I Bettisfield I Wem and Cadney Mosses	4223	SSSI	8475	Sensitive Habitat
10.	Wales	Fenn's I Whixall I Bettisfield I Wem and Cadney Mosses	UK0012912	SAC	8475	Sensitive Habitat
11.	Wales	Shell Brook Pastures	4186	SSSI	8858	Sensitive Habitat
12.	Wales	Dee Cliffs I Farndon	1947	SSSI	9198	Non-sensitive Habitat

13.	Wales	Bickerton Hill	1943	SSSI	9548	Sensitive Habitat
14.	Wales	Sontley Marsh	6512	SSSI	9808	Sensitive Habitat

SCAIL Modelling – Assessment of Ammonia

The SCAIL calculation stands for a Simply Calculation of Atmospheric Impact Limits. It is a screening tool for assessing the impact from agricultural sources on semi-natural areas such as SSSI's. The SCAIL model was developed from the Integrated Pollution Prevention and Control (IPPC) Directive which requires permits for pig and poultry systems with more than a certain number of livestock. It is noted that for poultry units the IPPC directive only applies to poultry units with more than 40,000 places. The SCAIL model provides a worse case scenario to the impact of such developments.

The Environment Agency provide detailed guidance regarding Ammonia, Nitrogen and Background levels together with sources, critical loads and levels from farming operations within their document "H1 Environmental Risk Assessment for Permits, Annex B – Intensive Farming" December 2011 (ERA H1).

ERA H1 Section 7.4.3 states that

"An emission is insignificant where PC process contribution is <4% of Critical Levels for SACs, SPAs and Ramsars, <20% for SSSIs and <50% for local and national nature reserves, ancient woodland and local wildlife sites".

As well as housing the birds, the application of manure to the land can have an impact on designated sites. The application proposed will see manure taken from the building every 10 days and spread on the available farm land in accordance with the Codes of Good Agricultural and Environmental Condition and Cross Compliance Regulations.

Manure will be:

- Spread in suitable weather conditions
- At least 10 metres away from any water course
- Incorporated into the ground within a maximum of 24 hours after application



Simple Calculation of Atmospheric Impact Limits from Agricultural Sources (SCAIL-Agriculture) is a screening tool for assessing the impact from pig and poultry farms on human health and on semi-natural areas like SSSIs and SACs. The model provides an estimate of the amount of acidity and nitrogen deposited from a farm as well as predictions of air concentrations of odour and PM10. These values can then be used to assess whether impact limits for human health or habitats are exceeded or not.

Information regarding the use of SCAIL-Agriculture as a screening tool and instructions for completing the assessment form are provided in the SCAIL-Agriculture User Guide. The User Guide also contains background information on regulatory requirements for the use of SCAIL-Agriculture, including instances where further detailed modelling of emissions will be required. **The relevant regulatory authority should be consulted for guidance regarding assessment requirements for planning and permitting purposes.**

[Scail Home](#) | [User Guide](#) | [SCAIL-Agriculture Report](#) | [Regulator Contact Details](#) | [Online Tutorial](#)

[Load Input Data](#)

Click on the question mark icon  to view guidance on each form field.

Project Details	
Project Notes 	Mulsford Farm
Project Run Mode 	☒ Conservative Met ☐ Realistic Met
Location Details	
Select Country 	Wales
Installation Details	
Installation 	1
Installation Name 	Mulsford Farm
Installation Location 	343490,345046 ☐ Landranger ☒ x,y Verify Location 
Source Details	
Source 	1 
Source 	☐ Pig ☒ Poultry
New or Existing Source 	New
Source Name 	Mulsford Farm
Source Location 	343490,345046 ☐ Landranger ☒ x,y Verify Location 
Source Type 	Housing
Naturally Vented ☐ Building Height 5.17 m Fan Location  Roof No. of Fans (optional)  11 Fan Diameter  1.040 m Fan Flowrate  5.09 m ³ /s Livestock Number  100000 Housing Floor Area  5275 m ² Type  Broilers Details  Fan ventilated, fully littered floor, non leaking drinkers	
Total emissions :  NH ₃ : 3000 (kg) PM ₁₀ : 3000 (kg) Odour: 157680000 (kDu)	

Get Emissions Values (?)

NH₃ emission (kg) (?) 3000
(comment)

PM₁₀ emission (kg) (?) 3000
(comment)

Odour emission (kOu) (?) 1576800000
(comment)

Designated Site details:

Search Radius (?) 10 km Run Receptor Search (?)

No. of Designated Sites (?) 14 Verify Receptor Locations (?)

Site No.	Name	Distance(km)	Designation	Easting	Northing
1	Well Rough & Long Plantation	1.815	SSSI	345197.4	344429.1
2	Afon Dyfrdwy (River Dee)	2.718	SSSI	341261.9	346602.4
3	River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid	2.991	SAC	341545.1	347318.6
4	River Dee (England)	4.158	SSSI	342783.1	349143.2
5	Cloy Brook Pastures	4.485	SSSI	339683	342674.2
6	Hanner Mere	5.428	SSSI	345489.6	339999.7
7	Taylor's Rough & Wellmeadow Wood	5.45	SSSI	348938.4	344897.3
8	Llyn Bedydd	6.569	SSSI	346843.4	339397.9
9	Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses	8.475	SSSI	348928.8	338546.5
10	Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses	8.475	SAC	348928.8	338546.5
11	Shell Brook Pastures	8.858	SSSI	336864.9	339165.5
12	Dee Cliffs, Farndon	9.198	SSSI	341517	354030.4
13	Bickerton Hill	9.548	SSSI	349428.3	352522.1
14	Sontley Marsh	9.808	SSSI	334083.4	347822

User specified site Select ▼ Add site

Site Name

Site Location Landranger x,y Verify Location (?)

Habitat within site please select...

Check Background Levels (?)

Human Health Receptor Details

Receptor Select ▼ Add Receptor PM₁₀ percentile Annual Average ▼ (?)

Receptor Name

Receptor Location Landranger x,y Verify Location (?)

Check Background PM10 Levels (?)

Finished adding sources? Save Input Data

Calculate

Clear Form

Site Code: 1951
 Designation Status: SSSI
 Distance from Installation (m): 1815
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m ³)	Conc NH ₃ (µg/m ³)	Conc Odour (Ou/m ³)	Dep Acid (kEq H ⁺ /ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.38	-	0.05	-	0.026

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m ³)	NH ₃ (µg/m ³)	Odour (Ou/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H ⁺ /ha/yr)
Process Contribution (PC) at receptor edge	-	0.05	-		
Background concentration at receptor edge	-	3.58	-		
Predicted Environmental Concentration (PEC)	-	3.63	-		
Process Contribution (PC) at receptor edge				0.39	0.026
Background deposition at receptor				46.06	3.47
Predicted Environmental Deposition (PEC)				46.45	(N:3.29 S:0.18) 3.5
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Broad-leaved, mixed and yew woodland 5.0	Broad-leaved, mixed and yew woodland maxN: 1.74 maxS: 1.38 minN: 0.36
% of relevant standard PC	-	5% or 2%	-	8%	2%
% of relevant standard PEC	-	363% or 121%	-	929%	201%
EXCEEDANCE	-	2.63 or 0.63	-	41.45	1.76

Site Code: 5260
Designation Status: SSSI
Distance from Installation (m): 2718
Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m ³)	Conc NH ₃ (µg/m ³)	Conc Odour (Ou/m ³)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.14	-	0.03	-	0.01

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m ³)	NH ₃ (µg/m ³)	Odour (Ou/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.03	-		
Background concentration at receptor edge	-	3.57	-		
Predicted Environmental Concentration (PEC)	-	3.6	-		
Process Contribution (PC) at receptor edge				0.16	0.011
Background deposition at receptor				24.50	1.90
Predicted Environmental Deposition (PEC)				24.66	(N:1.75 S:0.15) 1.91
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Standing open water - oligotrophic 3.0	Fen, marsh and swamp maxN: 0.66 maxS: 0.44 minN: 0.22
% of relevant standard PC	-	3% or 1%	-	5%	2%
% of relevant standard PEC	-	360% or 120%	-	822%	289%
EXCEEDANCE	-	2.60 or 0.60	-	21.66	1.25

Site Code: [?](#) UK0030252
 Designation Status: [?](#) SAC
 Distance from Installation (m): [?](#) 2991
 Habitat Type: Habitat

Installation Information [?](#)

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m3)	Conc NH ₃ (µg/m3)	Conc Odour (Ou/m3)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.12	-	0.02	-	0.008

Total Depositions/Concentrations and Exceedances [?](#)

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m3) ?	NH ₃ (µg/m3)	Odour (Ou/m3)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.02	-		
Background concentration at receptor edge ?	-	3.57	-		
Predicted Environmental Concentration (PEC) ?	-	3.59	-		
Process Contribution (PC) at receptor edge				0.10	0.007
Background deposition at receptor ?				24.50	1.90
Predicted Environmental Deposition (PEC) ?				24.6	(N:1.75 S:0.15) 1.91
Environmental Assessment Level or Critical Load / Level ?	-	1 or 3 ?	-	Luronium natans 3.0	Cottus gobio
% of relevant standard PC ?	-	2% or 1%	-	3%	n/a
% of relevant standard PEC ?	-	359% or 120%	-	820%	n/a
EXCEEDANCE ?	-	2.59 or 0.59	-	21.60	n/a

Site Code: 4228
 Designation Status: SSSI
 Distance from Installation (m): 4485
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m3)	Conc NH ₃ (µg/m3)	Conc Odour (Ou/m3)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.1	-	0.01	-	0.007

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m3)	NH ₃ (µg/m3)	Odour (Ou/m3)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.01	-		
Background concentration at receptor edge	-	3.34	-		
Predicted Environmental Concentration (PEC)	-	3.35	-		
Process Contribution (PC) at receptor edge				0.08	0.005
Background deposition at receptor				44.24	3.37
Predicted Environmental Deposition (PEC)				44.32	(N:3.16 S:0.21) 3.38
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Broad-leaved, mixed and yew woodland 5.0	Broad-leaved, mixed and yew woodland maxN: 1.77 maxS: 1.41 minN: 0.36
% of relevant standard PC	-	1% or 0%	-	2%	1%
% of relevant standard PEC	-	335% or 112%	-	886%	191%
EXCEEDANCE	-	2.35 or 0.35	-	39.32	1.60

Site Code: 6203
 Designation Status: SSSI
 Distance from Installation (m): 5428
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m3)	Conc NH ₃ (µg/m3)	Conc Odour (Ou/m3)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.08	-	0.01	-	0.005

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m3)	NH ₃ (µg/m3)	Odour (Ou/m3)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.01	-		
Background concentration at receptor edge	-	3.58	-		
Predicted Environmental Concentration (PEC)	-	3.59	-		
Process Contribution (PC) at receptor edge				0.08	0.005
Background deposition at receptor				46.06	3.47
Predicted Environmental Deposition (PEC)				46.14	(N:3.29 S:0.18) 3.48
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Broad-leaved, mixed and yew woodland 5.0	Broad-leaved, mixed and yew woodland maxN: 1.72 maxS: 1.36 minN: 0.36
% of relevant standard PC	-	1% or 0%	-	2%	1%
% of relevant standard PEC	-	359% or 120%	-	923%	202%
EXCEEDANCE	-	2.59 or 0.59	-	41.14	1.76

Site Code: 1974
 Designation Status: SSSI
 Distance from Installation (m): 5450
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m ³)	Conc NH ₃ (µg/m ³)	Conc Odour (Ou/m ³)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.08	-	0.01	-	0.005

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m ³)	NH ₃ (µg/m ³)	Odour (Ou/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.01	-		
Background concentration at receptor edge	-	3.58	-		
Predicted Environmental Concentration (PEC)	-	3.59	-		
Process Contribution (PC) at receptor edge				0.08	0.005
Background deposition at receptor				46.06	3.47
Predicted Environmental Deposition (PEC)				46.14	(N:3.29 S:0.18) 3.48
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Broad-leaved, mixed and yew woodland 5.0	Broad-leaved, mixed and yew woodland maxN: 1.73 maxS: 1.38 minN: 0.36
% of relevant standard PC	-	1% or 0%	-	2%	1%
% of relevant standard PEC	-	359% or 120%	-	923%	201%
EXCEEDANCE	-	2.59 or 0.59	-	41.14	1.75

Site Code: 4223
 Designation Status: SSSI
 Distance from Installation (m): 8475
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m ³)	Conc NH ₃ (µg/m ³)	Conc Odour (Ou/m ³)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.03	-	0.01	-	0.002

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m ³)	NH ₃ (µg/m ³)	Odour (Ou/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.01	-		
Background concentration at receptor edge	-	2.85	-		
Predicted Environmental Concentration (PEC)	-	2.86	-		
Process Contribution (PC) at receptor edge				0.05	0.004
Background deposition at receptor				22.54	1.77
Predicted Environmental Deposition (PEC)				22.59	(N:1.61 S:0.16) 1.77
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Standing open water - oligotrophic 3.0	Bogs maxN: 0.52 maxS: 0.20 minN: 0.32
% of relevant standard PC	-	1% or 0%	-	2%	0%
% of relevant standard PEC	-	286% or 95%	-	753%	340%
EXCEEDANCE	-	1.86 or No exceedance	-	19.59	1.25

Site Code: [?](#) UK0012912
 Designation Status: [?](#) SAC
 Distance from Installation (m): [?](#) 8475
 Habitat Type: Habitat

Installation Information [?](#)

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m3)	Conc NH ₃ (µg/m3)	Conc Odour (Ou/m3)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.03	-	0.01	-	0.002

Total Depositions/Concentrations and Exceedances [?](#)

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m3) ?	NH ₃ (µg/m3)	Odour (Ou/m3)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.01	-		
Background concentration at receptor edge ?	-	2.85	-		
Predicted Environmental Concentration (PEC) ?	-	2.86	-		
Process Contribution (PC) at receptor edge				0.05	0.004
Background deposition at receptor ?				22.54	1.77
Predicted Environmental Deposition (PEC) ?				22.59	(N:1.61 S:0.16) 1.77
Environmental Assessment Level or Critical Load / Level ?	-	1 or 3 ?	-	Active raised bogs 5.0	Active raised bogs maxN: 0.52 maxS: 0.20 minN: 0.32
% of relevant standard PC ?	-	1% or 0%	-	1%	0%
% of relevant standard PEC ?	-	286% or 95%	-	452%	340%
EXCEEDANCE ?	-	1.86 or No exceedance	-	17.59	1.25

Site Code: 4186
Designation Status: SSSI
Distance from Installation (m): 8858
Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m3)	Conc NH ₃ (µg/m3)	Conc Odour (Ou/m3)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.04	-	0.01	-	0.003

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m3)	NH ₃ (µg/m3)	Odour (Ou/m3)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.01	-		
Background concentration at receptor edge	-	3.48	-		
Predicted Environmental Concentration (PEC)	-	3.49	-		
Process Contribution (PC) at receptor edge				0.08	0.005
Background deposition at receptor				46.34	3.51
Predicted Environmental Deposition (PEC)				46.42	(N:3.31 S:0.20) 3.51
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Broad-leaved, mixed and yew woodland 5.0	Broad-leaved, mixed and yew woodland maxN: 1.75 maxS: 1.39 minN: 0.36
% of relevant standard PC	-	1% or 0%	-	2%	1%
% of relevant standard PEC	-	349% or 116%	-	928%	201%
EXCEEDANCE	-	2.49 or 0.49	-	41.42	1.76

Site Code: 1943
 Designation Status: SSSI
 Distance from Installation (m): 9548
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m ³)	Conc NH ₃ (µg/m ³)	Conc Odour (Ou/m ³)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.02	-	0	-	0.002

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m ³)	NH ₃ (µg/m ³)	Odour (Ou/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.00	-		
Background concentration at receptor edge	-	4.00	-		
Predicted Environmental Concentration (PEC)	-	4	-		
Process Contribution (PC) at receptor edge				0.00	0.000
Background deposition at receptor				27.30	2.09
Predicted Environmental Deposition (PEC)				27.3	(N:1.95 S:0.14) 2.09
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Dwarf shrub heath - lowland 10.0	Dwarf shrub heath - lowland maxN: 1.34 maxS: 0.45 minN: 0.50
% of relevant standard PC	-	0% or 0%	-	0%	0%
% of relevant standard PEC	-	400% or 133%	-	273%	156%
EXCEEDANCE	-	3.00 or 1.00	-	17.30	0.75

Sontley Marsh SSSI 9.8km (Grid Ref: 334083, 347822)

Site Code: 6512
 Designation Status: SSSI
 Distance from Installation (m): 9808
 Habitat Type: Habitat

Installation Information

No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Dep N (kg/ha/yr)	Conc PM ₁₀ (µg/m ³)	Conc NH ₃ (µg/m ³)	Conc Odour (Ou/m ³)	Dep Acid (kEq H+/ha/yr)
1	Mulsford Farm	1	1	-	3.0	-	0.04	-	0	-	0.002

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads	PM ₁₀ (µg/m ³)	NH ₃ (µg/m ³)	Odour (Ou/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)
Process Contribution (PC) at receptor edge	-	0.00	-		
Background concentration at receptor edge	-	2.96	-		
Predicted Environmental Concentration (PEC)	-	2.96	-		
Process Contribution (PC) at receptor edge				0.00	0.000
Background deposition at receptor				42.14	1.91
Predicted Environmental Deposition (PEC)				42.14	(N:1.73 S:0.18) 1.91
Environmental Assessment Level or Critical Load / Level	-	1 or 3	-	Broad-leaved, mixed and yew woodland 5.0	Fen, marsh and swamp maxN: 1.09 maxS: 0.87 minN: 0.22
% of relevant standard PC	-	0% or 0%	-	0%	0%
% of relevant standard PEC	-	296% or 99%	-	843%	175%
EXCEEDANCE	-	1.96 or No exceedance	-	37.14	0.82

SSSI Name	Background Levels		Contribution to ammonia average (NH3) concentration from this proposal	Critical level for habitat (ug)	% contribution to NH3 critical levels (CL for habitat is 3ug)*	Contribution to Nitrogen (N) deposition from this proposal	CL for habitat (kg/ha/yr)	% contribution to N critical loads (CL for habitat Low Level)
	NH3 (ug)	N (kg)						
Well Rough & Long Plantation	3.58	46.06	0.05	3	1.6%	0.39	5	7.8%
Afon Dyfrdwy (River Dee)	3.57	24.50	0.03	3	1%	0.16	3	5.3%
River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid	3.57	24.50	0.02	3	0.66%	0.10	3	3.3%
Cloy Brook Pastures	3.34	44.24	0.01	3	0.33%	0.08	5	1.6%
Hanmer Mere	3.58	46.06	0.01	3	0.33%	0.08	5	1.6%
Taylor's Rough & Wellmeadow Wood	3.58	46.06	0.01	3	0.33%	0.08	5	1.6%
Fenn's I Whixall I Bettisfield I Wem and Cadney Mosses	2.85	22.54	0.01	3	0.33%	0.05	3	1.6%
Fenn's I Whixall I Bettisfield I Wem and Cadney Mosses	2.85	22.54	0.01	3	0.33%	0.05	5	1%
Shell Brook Pastures	3.48	46.34	0.01	3	0.33%	0.08	5	1.6%
Bickerton Hill	4.00	27.30	0.00	3	0%	0.00	10	0%
Sontley Marsh	2.96	42.14	0.00	3	0%	0.00	5	0%

Conclusion

Based upon the results of the preliminary ammonia screening assessment, it is considered that the CCW would not require further modelling of ammonia emissions for the proposed poultry farm as ammonia emissions have been screened as insignificant following use of the SCAIL screening tool.



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With regards to emissions from any associated manure heaps/storage in relation to all relevant protected sites, the land which is available for manure spreading is 188.19 acres. Manure will be spread depending on weather conditions. Agreements are in place for any excess manure to be sold to local farmers and to AD Plants locally.



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