

Date: [Click here to enter a date.](#)
Our ref: 449177
Your ref: 3/2023/0645



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Consultations
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BY EMAIL ONLY

Dear Ben Taylor

**Planning consultation: Proposed earth bank slurry store with associated landscaping.
Location: Raygill Moss Farm, Gisburn Road, Bolton By Bowland, BB7 4LS**

Thank you for your consultation on the above dated 06 September 2023 which was received by Natural England on 06 September 2023.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Insufficient information provided

There is insufficient information to enable Natural England to provide a substantive response to this consultation as required under the Town and Country Planning (Development Management Procedure) (England) Order 2015. Please provide the information listed below and re-consult Natural England. Please note that you are required to provide a further 21 day consultation period, once this information is received by Natural England, for us to respond.

Natural England is not able to assess this case as there is insufficient information provided in relation to air quality impacts.

Manure stores, slurry lagoons and livestock sheds are a major source of emissions of ammonia which is directly toxic to vegetation and especially to lower plants (mosses, liverworts and lichens). Ammonia is also a major contributor to the deposition of nitrogen, which reduces habitat biodiversity by promoting the growth of a relatively small number of the more vigorous plant species which then out-compete the other species present.

Our Impact Risk Zones¹ have identified that interest features of designated sites:

New Ing Meadow Site of Special Scientific Interest (SSSI)
White Moss Site of Special Scientific Interest (SSSI)

May be sensitive to impacts from aerial pollutants, such as those emitted from this proposed development. The consultation documents provided do not include any assessment of air quality impacts.

¹ SSSI Impact Risk Zones layer within Statutory Land Based Designations on Magic Map available at: <http://magic.defra.gov.uk/>

In order for us to advise on this case an initial screening for air quality impacts should be completed. This is required even if the stock numbers are remaining the same or decreasing. Simple screening tools are available via the internet, the relevant regulator or consultants. The results of screening should inform the need for any further, more detailed assessment which may be required to fully assess the impacts of the proposal. Natural England would be happy to advise on the results of the screening opinion and any further steps required.

Please be aware that Natural England now applies a **1%** of ammonia Critical Level significance screening threshold **alone and in combination** including permissions from all sectors (this should also include recent permissions not yet included in the Air Pollution Information System NH3 background data). Natural England's approach to screening for air quality impacts differs from that of the Environment Agency (see Annex B)

Prior to re-consulting, please ensure a suitable air quality screening assessment is provided. If using the Simple Calculation of Atmospheric Impact Limits (SCAIL) model: <http://www.scail.ceh.ac.uk/> **please ensure the applicant has enclosed the final input file (PDF format), the outputs for the model and the results (CSV format), with the details of the application.**

For guidance on how to do this in the free online [SCAIL](#), please see the attached annex.

Natural England has not considered any other matters at this stage. We will provide advice on all relevant matters upon receipt of this information.

Should the applicant wish to explore options for avoiding or mitigating effects on the natural environment with Natural England, we recommend that they use our [Discretionary Advice Service](#).

Defra have launched a Slurry Investment Scheme and Grant (SIG) which will allow pig, dairy and beef farmers producing slurry to access funding to contribute towards improving their slurry storage. This is a step by government to reduce nutrient pollution from agriculture. The infrastructure allowed under the grant will be subject to conditions and safeguards and underpinned by existing regulations. The degree of impact on the natural environment should be considered on a case-by-case basis, but in principle, Natural England support this scheme and expect that most projects will reduce nutrient pollution through better slurry management. You may want to confirm with the applicant if the proposal is subject to the SIG scheme. Defra have produced information [here](#) about the SIG scheme which may aid your decision-making on this application.

Please send further correspondence to consultations@naturalengland.org.uk quoting our reference 449177

Yours sincerely

Corben Hastings
Consultations Team

Annex A

The link to the website can be found here: <http://www.scail.ceh.ac.uk/cgi-bin/agriculture/input.pl>

You will need all of the details of the proposals to hand in order to complete the SCAIL template.

Completing the template:

Complete '**Project Details**', '**Location Details**', '**Installation Details**'.

Most boxes are self-explanatory, but where further assistance is required, click on the  button.

'Installation Location' – provide the co-ordinates of the installation's location (12 figure grid reference using x,y coordinates or select landranger format to enter map reference, or the tool allows you to select a point from Google Maps, a map or aerial photograph). Click 'ok' to return to SCAIL tool.

'Source Details' - Complete all fields not greyed out depending upon the source type selected, including the grid reference if different to the main installation location already identified above. To complete '**Source Type**', select relevant description from 'housing, litter/manure storage, land-spreading, grazing, outdoor yard' from dropdown list and enter further information as required, e.g. for slurry storage add the tonnage if fresh manure is being added, (an entry of '0' is required if slurry is being stored), number of storage days per year, surface area in m², type of container and how it will be covered. Click on the red 'Get Emissions Values' button to populate the template.

It is possible to enter additional sources, e.g., if there are more than one housing units in different locations on the farm. Select 'add source' from drop down menu and enter the details for the source as described above and click on the red 'Get Emissions Values' button after each addition to populate the template.

'Designated site details' - select a search area of 10km and proceed to identify sensitive sites in proximity (click on red 'Run Receptor Search' button).

Calculate the emissions for the final assessment at the bottom of the page (click on red 'Calculate' button). This will calculate the emissions emitted from the proposal and received at each of the designated sites. If you need to return to the original page, click on the Green 'Back Button' at bottom right of screen.

Saving the Input file:

To save the Input file click on the red 'Save Inputs' button at the bottom left of the screen and select 'save as' with an appropriate name and location and include with your application (.inp file extension). The input file can also be saved from the front screen by selecting 'Save Input Data' using the same process.

Saving the Outputs:

Once the pre-populated results are visible, scroll down and click on the red 'Save Results' button and select 'save as' with an appropriate name and location. This file should also be included with the application.

How to reduce emissions:

If the final row of figures on the Results page are all in black, then the application is likely to be acceptable on Air Pollution grounds. If there are exceedances in red, these should be considered further through consultation or further mitigation and emissions reduction should be explored:

Total Depositions/Concentrations and Exceedances

Concentrations/Depositions and Critical Loads/Levels	NH ₃ (µg/m ³)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H ⁺ /ha/yr)	PM ₁₀ (µg/m ³)	Odour (Ou/m ³)
Process Contribution (PC) at receptor edge	0.10	0.52	0.035	-	-
Background concentration at receptor edge	1.97	18.75	1.54 (N:1.34)(S:0.20)	-	-
Predicted Environmental Concentration/Deposition (PEC)	2.07	19.28	1.58	-	-
Environmental Assessment Level or Critical Load / Level	Lower: 1 Upper: 3	Austropotamobius palipes	Austropotamobius palipes	-	-
USE OUR THRESHOLDS					
% of relevant standard PC	Lower: 10% Upper: 3%	n/a	n/a	-	-
% of relevant standard PEC	Lower: 207% Upper: 69%	n/a	n/a	-	-
EXCEEDANCE	Lower: 1.07 Upper: No Exceedance	n/a	n/a	-	-

Project Notes

Cattle - 88 - Slurry - SCAL Template Farm

SAVE RESULTS SAVE EXPORT

[Use this Back button. Do not use the browser back button - you could lose all inputs]

BACK

By altering these details you can reduce the emissions of harmful air pollutants to sensitive sites before making an application. The main parameters in SCAL which can be used by the land holder to reduce/mitigate air pollution are:

- The type of container and its cover will reduce emissions of ammonia and ammonia deposition
- Further reducing the surface area exposed to the air by making it deeper. This needs to be balanced with health and safety considerations.
- Location in relation to the nearest designated site (the further away the better)
- Reducing the length of time the facility is operating

Further ideas on mitigation can be found in the Code of Good Agricultural Practice for Reducing Ammonia Emissions - <https://www.gov.uk/government/publications/code-of-good-agricultural-practice-for-reducing-ammonia-emissions/code-of-good-agricultural-practice-cogap-for-reducing-ammonia-emissions>

PLEASE NOTE:

Should the applicant wish to replace an old slurry lagoon or housing with a new system, or change livestock type or numbers, a SCAL report should be run and submitted for both the existing and the proposed scenario. This can be done by saving the current file, then pressing the SCAL back button (not the web browser back button), changing the details, recalculating and saving the new file.

Annex B

May 2022 Air Quality Risk Assessment Interim Guidance

Joint NE/EA External Lines

Background

- Air pollution, such as ammonia and NO_x, poses a threat to designated sites. In particular the deposition of nitrogen, in various reactive forms, causes changes to habitat composition and quality. In England, around 90% of Sites of Special Scientific Interest (SSSIs) with features sensitive to nitrogen deposition are receiving loadings above the levels at which harm is expected.
- To date, approaches and guidance for agricultural emissions have differed from industrial and road traffic emissions. Caselaw has also recently clarified some aspects of air quality habitat impact assessment.
- Consequently, the conservation bodies and regulators across the UK countries are considering how to update assessment approaches for decision making.
- This note only addresses assessments of Habitats Directive sites as this is the area of overlap for changes made by both organisations, and these sites are impacted by the caselaw. Differences in approach, and future changes to other designated sites are outside of the scope of this note.
- The Environment Agency aim to go to consultation on their updated external guidance in summer 2022.

Differing Remits and Joint Working

- Natural England (NE) is a statutory consultee and provides advice to competent authorities. NE's primary focus is to provide the best available advice to conserve, enhance and manage the natural environment.
- The Environment Agency (EA) is responsible for regulating the permitted pig and poultry sector under the Environmental Permitting Regulations (EPR). As a regulator, the EA must make pragmatic and risk-based decisions and be proportionate in balancing the environmental impact and business need of the sectors they regulate.
- NE have made specific changes to assessing the impacts on European Designated Sites from agricultural sources to align the approach with other sectors and countries that apply to both planning and permitting of developments.
- To immediately address the legal rulings, EA have made specific internal changes which bring the approach more in line with caselaw. EA must go through a formal process of consultation when making changes to externally published guidance. NE does not have the same constraints in its role as adviser in updating guidance to reflect changing scientific evidence and caselaw.
- NE and EA have recently produced separate internal interim guidance for assessing the risk to designated sites from emissions to air. At this time, these approaches still differ in certain respects.
- NE and EA are working together to ensure we are aligned in developing our respective longer-term guidance for the assessment of air quality emissions. The changes reflected in our interim approaches demonstrate the direction of travel toward wider alignment between the agencies.

Summary of Interim Approaches

EA Interim Approach (New and Expanding Intensive Pig and Poultry)

- Apply a distance criterion of 5 km at screening.
- If the process contribution alone is greater than 4% of the critical level or load using the ammonia screening tool (AST), detailed modelling will be required to progress the application². Applications where an AST prediction is <4% alone will not be assessed further due to the conservative nature of the AST, EA analysis shows that individual sources are highly unlikely to exceed 1% where they screen as <4% using the AST.
- In the first instances, and to test the existing approach, the existing threshold of 4% of the critical level or load for European sites is applied again using detailed modelling, alone and in-combination. Where the background concentration from the in-combination assessment exceeds the critical level or load, the process contribution (PC) (based on detailed modelling) will be compared to a threshold of 1%. Where the maximum PC is >1% a detailed modelling assessment is required using case specific evidence. An insignificance threshold of 1% will be applied for in-combination assessment using the AST model.
- The EA will routinely consult with the Local Planning Authority to identify all new developments which may need to be considered in-combination.

NE Interim Approach

- Apply a distance criterion of 10 km at screening.
- If the PC alone or in-combination is greater than 1% of the relevant critical level or load an LSE is triggered, and appropriate assessment is required. NE uses the SCAIL model with this.
- No threshold value will be applied at appropriate assessment – the focus will be upon detailed modelling and case specific professional judgement using a suite of tools and evidence³.

Summary of Differences

Screening Distances

- In EA's view, for the Pig and Poultry sector, 5 km is likely to be sufficiently protective for **most proposals**. The screening distances are based on detailed dispersion modelling using the largest permitted farms. EA intend to review and update screening distances when changes are made to the long-term guidance.
- NE expect to be consulted on proposals giving rise to air emissions if they are in proximity of a sensitive protected site as identified by Impact Risk Zones (IRZ). The screening distance is designed to be precautionary to ensure that **all proposals** with a potential impact are assessed. NE apply a range of screening distances depending on the source type and size.

Simple Screening Tool and Threshold

- EA use a **4% threshold with the Ammonia Screening Tool (AST)**. This threshold is only appropriate to use with AST due to its conservative nature. Empirical evidence suggests that detailed modelling results tend to be several times lower than AST predictions. No in-combination screen is carried out where the alone PC is insignificant as, based upon EA's experience, this would not change the outcome of the determination. It is part of EAs longer-term ambition to update the threshold along with an appropriate simple screening tool.

² EA have removed the upper in-combination threshold of 20% at the pre-application screening stage.

³ [Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations - NEA001](#)

- NE have aligned with other countries using the **1% threshold with the SCAIL**, or other appropriate, model at screening. The 1% threshold enables the competent authority to assess the impacts of smaller concentrations of pollution which can cumulatively lead to negative outcomes for biodiversity.

Assessing impacts

- EA will follow their existing process as well as applying an additional check using a 1% threshold to provide reassurance that sites where the background is in exceedance, emissions more than 1% but less than 4% will not be excluded from further consideration. Additional information will be collated for consideration such as species composition, condition, and spatial extent of any threshold exceedances.
- NE **will not be applying a threshold value at appropriate assessment** in this interim approach. The focus will be upon detailed modelling (such as ADMS and AERMOD where appropriate) and case specific professional judgement using a suite of tools and evidence as outlined in our guidance. NE will be looking to reintroduce thresholds for appropriate assessment when the scientific evidence is fully evaluated.

Approach to in-combination assessment

- The EA use **1% with the AST as a de-minimis for in-combination assessment at the appropriate assessment stage only**. This considers the dispersed nature of multiple sources, and the low likelihood of impacts overlapping, as well as lack of detailed input data available.
- NE will continue to require an assessment **alone and/or in-combination at both screening and appropriate assessment** stages. NE will consider an insignificance threshold for in-combination assessment when the necessary underpinning evidence for a value has been thoroughly considered.

Why is NE moving to a 1% threshold for agricultural sources?

This change in our approach to risk assessment will be made for the following reasons.

- The 1% threshold provides reassurance that sources which could result in harm or damage to a designated site alone or in-combination will not be missed from an assessment. This lower threshold enables the competent authority to assess the impacts of smaller concentrations of pollution which can accumulate and lead to negative outcomes for biodiversity and site conservation status.
- The commonly used screening tools SCAIL and AST (EA only) are often highly conservative, however the relationship between screening results and the output of detailed modelling is not always consistent. These models assume the sensitive receptor is always downwind of the prevailing direction of the source. This may be correct in some cases, whilst in others it will not be. Consequently, it cannot always be assumed that 4% (as currently applied by EA using AST), will be sufficiently protective in all scenarios. The 1% threshold increases confidence that sources with a potential impact will be screened into further assessment.
- It is preferable to align the sector with other sources – all other sources of emissions to air are regulated with a 1% screening threshold. There is no robust argument to suggest why these sectors should be treated differently and this would promote a more consistent approach.
- It is also preferable to align with other UK countries who apply the 1% threshold to SCAIL assessments for agricultural sources.