

Andrew,

Please see revised modelling report attached, with the incorrect reference to acidification removed. The modelling does not use a reduction factor for acidification, so has not required amendment in that regard. It does include an additional contribution from the separator/handling plant.

Please could you advise on timeframe from now?

Many thanks,

Lizzie

----- Forwarded Message -----

**Subject:**RE: Updated application documents - Willow Tree Farm -  
EPR/AP3400SG/A001

**Date:**Wed, 24 Mar 2021 16:45:14 -0000

**From:**

**To:**'Lizzie Jennings'

Revised report attached Lizzie.

Regards,

Steve Smith.



**AS Modelling & Data Ltd.**

**From:** Lizzie Jennings

**Sent:** 24 March 2021 15:59

**To:**

**Subject:** Re: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Thanks Steve :-)

On 24/03/2021 15:46, wrote:

I can remove the reference to acidification Lizzie, but the modelling includes an additional contribution from the separator/handling plant.

Regards,

Steve Smith.

**AS Modelling & Data Ltd.**

**From:** Lizzie Jennings

**Sent:** 24 March 2021 13:56

**To:**

**Subject:** Re: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Afternoon Steve,

I agree with you that we should be sticking to the 2.6 BAT target figure - rather than revising down to the AHDB advised figure in this instance. Surely it is better to model for worse case scenario within permissible range, particularly if this still screens out without further deductions for occupancy, etc.

The outstanding point then is:

"I still believe there is an outstanding issue with the report as it still makes reference to the acidification process [page 3 of attached], including reducing the slurry storage emission factor by 50%. Is this still factored into the modelling results? If this is the case, the modelling will have to be amended. If not, it should be fine to just remove all mention within the modelling report and re-submit."

Please could you amend this and check that the acidification reduction factor has not been included in the results?

Many thanks,

Lizzie

On 15/03/2021 16:22, wrote:

Afternoon lizzie,

I've been doing this and submitting reports to the EA for many years now and have never had these sort of points raised before.

The 3.11 Emission Factor figure is apart from perhaps use in older units now defunct as far as we are aware, the EA themselves use the BAT/EAL figures or the AHDB based figure of 2.0 for new installations. In fact, if anything we have previously been compelled to use the BAT/EAL figure rather than the old Emission Factors or the AHDB figures!

The EA test assessment point is the %age of Critical Level/Load.

As before we can amend the reports easily if you want us to, but really I think someone needs to challenge this!

Regards,

Steve Smith.



**AS Modelling & Data Ltd.**

**From:** Lizzie Jennings

**Sent:** 15 March 2021 15:56

**To:**

**Subject:** Fwd: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hi Steve,

Please see email below from the EA re Willow Tree modelling.

Many thanks,

Lizzie

Sent from my iPhone

Begin forwarded message:

**From:** "Stephen, Andrew"

**Date:** 15 March 2021 at 09:31:57 GMT

**To:** Lizzie Jennings

**Subject:** **RE: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001**

Hello Lizzie

In response to your point below:

1. We don't usually accept modelling based on what they have to achieve, we need to know what they can achieve and base it on that. If we have agreed it meets the 2 then it shouldn't be a problem (unless you are saying they won't frequently remove slurry or keep below 800mm, in which case that is deep pit which isn't BAT without additional measures). Irrespective of this, 2.6 will be the number referenced in the permit as that is the BAT AEL they have to meet in this scenario (assuming slurry is frequently removed and below 800mm). The other point to make here is that the way you propose to do this overestimates the impact from the site.

2. Within a modelling report we would normally want the N deposition PC and % against the N Deposition CLo. We report the PC in kg N/ha/year both in our pre-application advice letters that highlights if modelling is required or not, our decision making documents and in correspondence to Natural England.

I will leave it to decide whether you want to address these two points in a revised submission, I won't labour the point further. I still believe there is an outstanding issue with the report as it still makes reference to the acidification process, including reducing the slurry storage emission factor by 50%. Is this still factored into the modelling results? If this is the case, the modelling will have to be

amended. If not, it should be fine to just remove all mention within the modelling report and re-submit.

Regards

Andrew

**From:** Lizzie Jennings

**Sent:** 10 March 2021 13:00

**To:** Stephen, Andrew

**Subject:** Re: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Andrew,

Steve Smith has got back with two points:

1. The 2.6 kg-NH<sub>3</sub>/place/y figure has been used as the highest permissible AEL. It can be revised down to 2.0 but the modelling at 2.6 shows an acceptable impact within thresholds, so Steve is concerned about revising the figure down unnecessarily to a level that the farm might be held to in future.
2. No it should not be in kg-N/ha/y, it is as stated a percentage (of Critical Load). The Critical Load and the deposition velocity used to calculate the N deposition from the ammonia concentration are given.

If you require the report to be revised to the 2.0 figure, please let me know.

Many thanks,

Lizzie

On 01/03/2021 09:41, Lizzie Jennings wrote:

Hello Andrew,

Thank you for this. I have notified Mr Buckle and Steve Smith and requested the amendments to the modelling report.

Many thanks,

Lizzie

On 01/03/2021 09:22, Stephen, Andrew wrote:

Hello Lizzie

I received a response from a Marine Senior Adviser in Natural England on Friday. They said the following:

The Greater Wash SPA is classed as a marine SPA which protects the following features in their subtidal foraging and rafting locations

1. Non Breeding, Little Gull and Red Throated Diver
2. Breeding Little Tern, Sandwich Tern and Common Tern

Whilst the GW SPA site boundary does extend to MHW and therefore includes intertidal habitats; the importance of those habitats in this instance are only of importance for breeding locations for Little Tern. And the impacts from the proposals on those supporting habitats will be taken into account through the Humber Estuary SAC/SPA/RAMSAR and The lagoons SSSI. Therefore, we do not believe that there is an impact pathway to the interest features of the GW SPA and therefore no LSE on the purposes of the SPA.

In addition there are currently no fully marine/subtidal SPA attributes that relate to Air Quality and given the existing nutrients the water column is not sensitive. Therefore we advise against attributing any critical loads to the Greater Wash SPA and conclude that the GW SPA can be excluded from the HRA for this pressure.

In short, the Greater Wash SPA can be discounted from your assessment. Please refer to my earlier notes as to the deficiencies in the earlier iterations of the modelling report, review and re-submit.

I apologise again for the delay in obtaining this information.

Best regards

Andrew

**From:** Stephen, Andrew  
**Sent:** 26 February 2021 08:49  
**To:** 'Lizzie Jennings'  
**Subject:** RE: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Lizzie

Earlier this week I gave NE a deadline of today for a response. If I haven't heard from them by the end of today I'll instruct you how to proceed with regards to the Greater Wash. I will contact you Monday morning.

I apologise for the delay.

Many thanks

Andrew

**From:** Lizzie Jennings  
**Sent:** 25 February 2021 20:27  
**To:** Stephen, Andrew  
**Subject:** Re: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Andrew,

Just wondering if there is any news now regarding the response from NE?

The operator is increasingly concerned about the delay.

Many thanks,

Lizzie

On 26/01/2021 09:22, Stephen, Andrew wrote:

Hi Lizzie

No, I won't be able to duly make the application until the issue with the Greater Wash SPA is resolved one way or the other. I wouldn't make any amendments to that report until I have this clarification as I don't think that would be particularly efficient.

Hopefully I'll be in touch shortly. I'll chase with NE if I haven't heard by the end of this week.

Many thanks

Andrew

**From:** Lizzie Jennings

**Sent:** 25 January 2021 18:03

**To:** Stephen, Andrew

**Subject:** Re: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Andrew,

Thank you for the update.

I haven't forgotten the errors you highlighted but have held off requesting the amendments until we reach a conclusion with NE - just in case further changes are then required. Please let me know if you would prefer me to go ahead with these amendments however, if it enables us to move forward at all while we wait for this clarification?

Hopefully we will have a response soon.

Many thanks,

Lizzie

On 25/01/2021 13:53, Stephen, Andrew wrote:

Hello Lizzie

I was in contact with Peter Gray just last week to seek an update. I can only advise that he is seeking clarification internally and has told me he will come back to me as soon as possible.

We can't really move forward until this is resolved. Please note it isn't just this one issue. I have previously laid out errors in the modelling report (emails dated 8 December) which will also need to be addressed.

I hope to be able to update you on where we are with Natural England very shortly.

Many thanks

Andrew

**From:** Lizzie Jennings

**Sent:** 25 January 2021 11:49

**To:** Stephen, Andrew

**Subject:** Re: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Andrew,

I'm aware that both you and Steve have been trying to get a response from Natural England to enable us to proceed with this application. Have you had any joy? I have been copied in to a series of emails; the latest of which is as follows:

**From:** SM-NE-YNL Hub (NE)  
**Sent:** 07 January 2021 14:23  
**To:**  
**Subject:** RE: Greater Wash SPA.

Dear Steve,

Please rest assured that your query regarding critical loads is being looked into.

The critical loads set are being reviews by a national air quality specialist to ensure that the correct loads are applied. As the Greater Wash SPA is a relatively newly designated site these the loads set where based on a precautionary approach before more specific loads could be applied.

Kind regards,

**Peter Gray**

Conservation Delivery Adviser

Casework & Co-ordination Team

Yorkshire & North Lincs

Natural England

4<sup>th</sup> Floor, Foss House, Kings Pool

1-2 Peasholme Green, York, YO1 7PX

Is any progress being made on this application in the meantime, or is this issue causing a standstill until resolved?

Many thanks,

Lizzie

On 08/12/2020 17:21, Stephen, Andrew wrote:

Apologies, Lizzie, but I also forgot to mention that the report still makes reference to the acidification process, including reducing the slurry storage emission factor by 50%. This will also need to be addressed.

**From:** Stephen, Andrew  
**Sent:** 08 December 2020 15:28  
**To:** 'Lizzie Jennings'  
**Subject:** RE: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Lizzie

I note that the revised ammonia modelling report states: "There are no Critical Levels or Load for any habitat present at the Greater Wash SPA." The Air Pollution Information System does detail critical levels and loads for this designation, in addition to confirmation from Natural England that they should be used, and which numbers should be assessed against. However, I am in further discussions with Natural England about this designated site and when I know more, I'll come back to you.

I also have noted some errors within the modelling report:

1. The report states: "New pig housing must comply with Best Available Techniques Assessment Emission Limits (BAT AEL), which for finisher pigs, with a weight greater than 30 kg, housed on a slatted floor with a vacuum system for the frequent removal of manure, is 2.6 kg-NH<sub>3</sub>/place/y. This emission factor has been used to calculate emissions from the proposed pig housing." 2.6 is the BAT AEL and is different to the emission factor. The BAT AEL is what they have to achieve, the emission factor is different for the housing. The base emission factor is 3.11 for fully slatted floor (FSF) with vacuum slurry removal but we can reduce this emission factor down to 2 (if maximum depth 800mm and slurry removal at least every 12 weeks is satisfied). I looked at reducing this down further based on occupancy but I believe you had concerns about this step.
2. Table 4c – The title of this table is 'predicted maximum annual mean ammonia concentration at the discrete receptors expressed as a percentage of the Critical Load'. Shouldn't this table be recording nitrogen deposition in kg/ha/yr? Not the annual mean ammonia concentration, which is recorded in Table 4b? Tables 4a to 4c seem to cover ammonia deposition and not nitrogen deposition.

However, despite the above two points, I would hold off making any amendments to the report until the discussions with Natural England have reached their conclusion.

I will be in touch in due course.

Regards

Andrew

**From:** Stephen, Andrew  
**Sent:** 02 December 2020 09:26  
**To:** 'Lizzie Jennings'  
**Subject:** RE: Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Hello Lizzie

Thank you for your emails. I'll have a goof look what you have sent through and come back to you.

Kind regards

Andrew

**From:** Lizzie Bentley **On Behalf Of** Lizzie Jennings  
**Sent:** 01 December 2020 17:19



**To:** Stephen, Andrew; Rick Buckle

**Subject:** Updated application documents - Willow Tree Farm - EPR/AP3400SG/A001

Good afternoon,

Further to my email yesterday, please see attached the revised application documents where applicable. Please also see email sent this morning, confirming payment of additional fees.

I am just double-checking the slurry drainage routes on the site map with Mr Buckle and his planning officer/builder. If there are any changes to the attached version, I will confirm asap and send a finalised plan.

Is there anything else that you require to progress to determination of the permit?

Many thanks,

Lizzie

**Lizzie Bentley**

Technical Director

Yorkshire Farmers

<https://www.yorkshirefarmers.co.uk/>



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