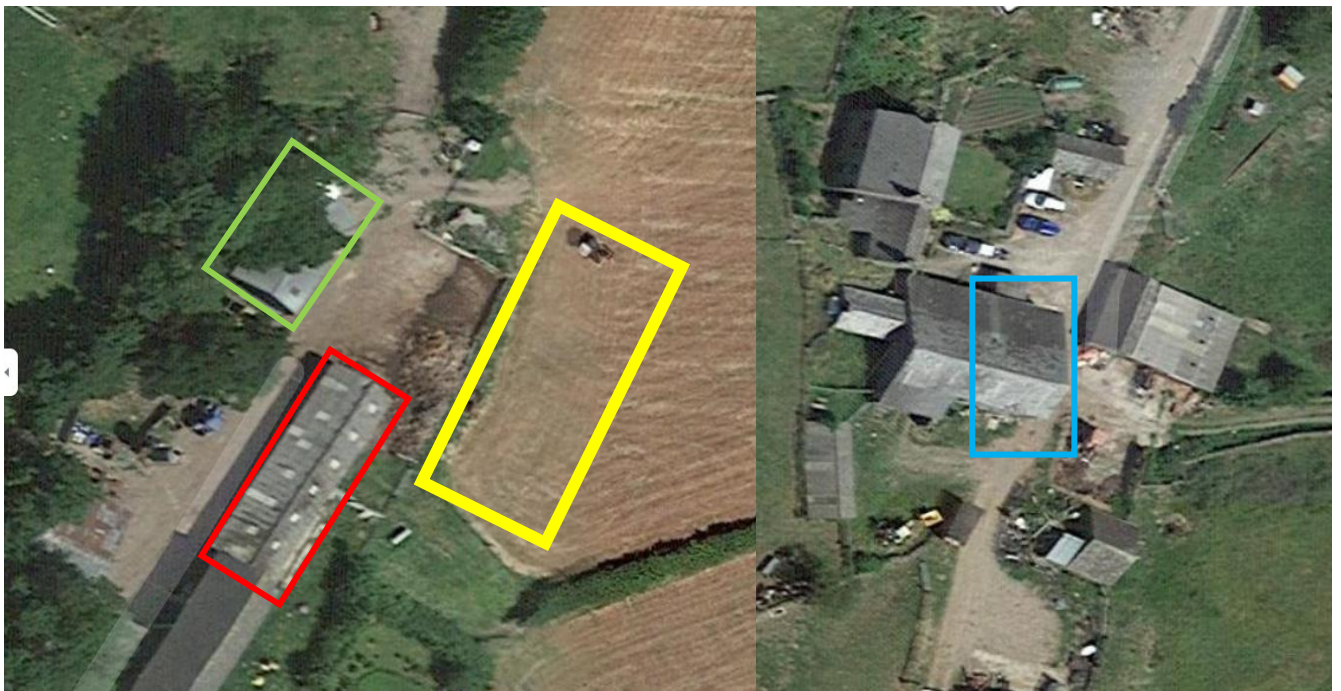


This is a detailed outline of the business as it is and the changes in which the new building would actually change to any form of stocking rates. Current on farm stocking rates according to The British Cattle Movement Service (BCMS) stands at 157 cows on holding. These are situated on two farms, which run either side of the duddon moss SSSI which is located between them. Currently cattle are housed in a tethered method which is being put a stop to by Farm assurance and our milk buyer, as it is felt that it is better for cattle to be able to express natural behaviour if they are loose housed in the proposed cubical building.

Currently our shippen which is highlighted in the RED box contains 43 tethered housing spaces which is also used to milk the cows in. The shed which is highlighted in the GREEN box is a shed which is used to house dry cows as we run currently 43 milking full time with 5 to 7 dry cows normally located in the GREEN shed until they Calve. Also to this you will see in my second picture a building which houses young maiden heifers which will come into the herd and need to currently be tether trained which usually is around 8 per year. We often sell any surplus to requirement heifers to other farms as we can only hold a set amount and only produce enough food for that amount. The heifers are located in the BLUE box building situated at the second farm.

The plan is to allow all in milk, dry and maiden heifers to share the one building as this reduces the distance they have to travel through the winter months, the building in question which we are proposing is planned to go in the YELLOW box thus limiting the amount of concrete that they have to walk between the new housing and the milking shippen which will reduce any yard mess and less leaching will get into the environment.



There is no current infrastructure for manure storage as it has to be spread all winter as it has been done since we came to the farm 60+ years ago, our intention is to build such infrastructure which will allow us to hold up to 9 months of storage which will reduce the risk of leaching into the environment also mean that brought in artificial fertilizer will be reduced if not completely done away with as we will be able to utilize the manure correctly, thus saving more pollutants from the environment. This is part of our milk contract way of hitting their targets of being carbon neutral.

Therefore as for any alterations to stocking levels and the amount of manure produced, this will not be changed. As you can see from my above text that I currently run the correct amount of cattle. If you were to come to visit my farm you would understand that it is at a nice balance and we wouldn't be able to hold any more practically, my sole intention of this building is to create a better living environment for our livestock and which meets the needs and requirements of the higher standards agency which we are a part of The Red Tractor (FARM ASSURANCE). We aim to do what is best for our milk buyers as they are integral to our future and livelihoods. As for the manure storage side, it is integral to us that we meet the standard which are set and that we future proof ourselves to save from over investment in the future which could be avoided by doing it right the first time.

As I can see from the SCAIL Report below which is have screenshot in to help refer to that the following would help reduce our environment impact which I am all for

- First of all is increasing scraping out to 4 times a day instead of 2 which is a easily achievable protocol to put into place should the building go ahead and will be made part of the daily routine
- As I said previously the current infrastructure for the manure is really none existent and I feel I am improving the spreading techniques by being able to house manure for longer therefore spreading at the best times and in the best conditions thus to avoid leaching and any environmental impact
- No existing slurry storage is in place as it stands. The storage which is proposed is the first step into the transition into a larger storage which is planned to be located behind the new building which will be done as soon as possible. This would make the under building slurry store a reception pit for the larger one which would be located behind also would be roofed to avoid any rain water from diluting it.
- As for trees there is a existing hedge located beside the building which would help with ammonia nitrate levels
- Unfortunately I cannot commit to deactivating the current housing as it is also our milking arrangements and would leave us with no way of milking our cattle, as for the current dry cow housing this will still be needed to calve the cattle is it is on a straw bed which is the most ideal environment for allowing cattle to calve on where as the cubical building is not.

The results of the SCAIL report:

Duddon Mosses SSSI is the biggest concern showing the following results -

SSSI - Ammonia process contribution 0.263 micrograms, 26% of the 1 microgram threshold – background levels are already above the 1 microgram.

SSSI - Nitrogen Deposition process contribution 1.4kg, 28% of the 5kg – 10kg threshold (even if we use the higher end of the threshold it would still be 14% ) – and background levels are already above the threshold.

SAC - Ammonia process contribution 0.095 micrograms, 10% of the 1 microgram threshold – background levels are already above the 1 microgram

SAC - Nitrogen Deposition process contribution 0.5kg, 10% of the 5kg – 10kg threshold (even if we use the higher end of the threshold it would still be 5%) – background levels are already above the threshold.

Therefore this proposal will have an increased detrimental impact on the Duddon Mosses SSSI (with background levels already in exceedance), and therefore essentially any further expansion of the herd should be restricted. However Natural England acknowledge that the application is for a relatively minor number of livestock and therefore want to provide proportional and pragmatic advice. Therefore we advise that a package of mitigation measures needs to be considered and implemented, which could include:

- Increasing the frequency of scraping (increasing scraping from twice daily to 4 times daily can reduce ammonia emissions by up to 15%).
- Adding non-return valves to the slats on the floor.
- Improving slurry spreading techniques - injection of slurry and spreading in more favourable conditions would reduce air pollution and also reduce polluted run-off into the SSSI.
- Covering any existing slurry storage.
- A tree shelterbelt, although this would be a longer term solution. Ammonia mitigation in the region of 15-25% for housing emissions (depending on the depth of the planting area and species planted) can be obtained from tree planting. Further information can be found at <http://www.farmtreestoair.ceh.ac.uk/>
- A commitment to deactivating the current shed to ensure the new shed is not adding to the current pollution from the holding.

There is more information in the document below regarding slurry management and spreading mitigation options:

Defra's Code of Good Agricultural Practice (COGAP) also provides guidance on reducing emissions:

Thank you,

A J Wearing

Herds Manager at JE & WB Wearing