

## Odour Management Plan – Pig rearing unit located at Green Farm, Ingbirchworth.

The purpose of this Odour Management Plan is to:

- Support the odour impact assessment.
- Set out procedures at the farm in order to mitigate or minimise the risk of odour.
- The overriding principle of this Plan is to ensure the day to day activities are carried out in accordance with this document to help minimise the overall environmental impact.
- Outline the odour complaints procedure.

Odour Related Issue that could arise.	Actions taken to minimise odour and odour risks
Effects of diet on any potential odour issues	<ul style="list-style-type: none"><li>-Feed composition is closely matched to pigs' requirements, especially protein.</li><li>-Diets are fed to appetite via sealed systems, reducing potential for dust release to the atmosphere.</li><li>-Diets are continually reviewed and professionally formulated by the rearing company to ensure peak performance (a feed which causes excessive excretion will have negative effects on performance and weight gain, so this is avoided).</li></ul>
Build up of muck in the shed leading to increased odour.	<ul style="list-style-type: none"><li>-Pigs are bedded with fresh straw daily to ensure they are kept clean, this heavy use of fresh, clean straw helps to dilute and mask any odour from excretion and urine.</li><li>-Pigs require deep, clean bedding which they like to nest/ sleep in, which again benefits performance as a happy and contented animal will perform well and grow efficiently.</li></ul>
Mucking out leading to potential odour.	<ul style="list-style-type: none"><li>-The whole shed is mucked out 6 times a year, the handling of the muck is explained below, and replaced with fresh, clean bedding.</li></ul>
Manure storage leading to potential odour.	<ul style="list-style-type: none"><li>-Manure is stored in the fields above the proposed pig shed, these locations are shown in the aerial photograph below.</li></ul>

	<ul style="list-style-type: none"> <li>-Due to heavy use of straw the muck is stored in a solid state which means there is no run off or leakages, this solid muck is beneficial when spread as it doesn't wash off the field and is easier ploughed in to ensure all nutrients are returned back to the soil.</li> <li>-No liquid slurry due to urine being soaked up within straw.</li> <li>-Wind direction/weather is considered when handling manure.</li> <li>-Manure is then loaded directly into trailers to reduce any spillages and soiling of the roadways.</li> <li>-Stored manure frequently removed to reduce odour build up.</li> </ul>
Manure spreading and removal leading to odour issues	<ul style="list-style-type: none"> <li>-Manure will be spread on the land above the pig shed as an essential method of sustainably applying essential nutrients to the soil, the muck heap locations are shown below.</li> <li>-This manure spreading will take place in the exact same locations as it did for the existing shed based on Green Farm.</li> <li>-Wind speeds and direction will be considered prior to spreading.</li> <li>-Any spillages on roadways will be avoided when possible, and if so immediately cleaned up.</li> <li>-Low trajectory spreading equipment will be used.</li> </ul>
Build up of odour even after mucking out	<ul style="list-style-type: none"> <li>-After each muck out has finished the shed will be steam cleaned and disinfected, this is done primarily to reduce the risk of disease but also will help with removal and reduction of any odours.</li> </ul>
High stocking densities	<ul style="list-style-type: none"> <li>-The shed will be stocked in line with Red Tractor and Freedom Food standards/ guidelines. This is checked by representatives from the above boards and livestock cannot be sold without their signed certification.</li> <li>-By ensuring that the stocking rate is in line with standards, pigs are allowed to thrive due to not being overcrowded as they can access feed/water easily, odours are also reduced as excretion and urine levels are not excessive when compared to shed size.</li> </ul>
Cleanliness of area in front of shed.	<ul style="list-style-type: none"> <li>-Any muck which has been transferred from tractor wheels is immediately cleaned up to reduce odour and to maintain cleanliness.</li> <li>-Yard areas are regularly scraped to reduce build up which lead to odours.</li> <li>-Yard in front of pig shed is sloped gradually back towards the shed to ensure any rainwater does not wash any muck near to any receptors.</li> </ul>
Dead carcasses leading to potential odour issue	<ul style="list-style-type: none"> <li>-Pigs are checked twice daily.</li> <li>-Any deadstock is removed upon discovery and placed in a sealed container to reduce any odour issue.</li> </ul>

	<p>-Approved and licensed collector then phoned immediately for disposal.</p> <p>-If same day collection cannot be achieved then I will transport to their premises (3 miles away).</p>
Lack of ventilation and airflow which could lead to build up of odour	<p>-North and south side of the pig shed clad with traditional Yorkshire boarding which allows for adequate ventilation, not only for pig health but also to allow for natural air flow to reduce and remove stale odours. East and east side (to the side of door openings) are also clad with Yorkshire boarding to allow natural air flow.</p> <p>-Roof vents help to pull air through the roof of the shed when it rises, this helping to reduce the build up of odour.</p> <p>-Front and back of sheds are open above the doors to allow for fresh air to travel through, this natural airflow will help to effectively draw fresh air into the building and remove the stale air, which will significantly help to reduce odour.</p>
Muck being left on ground leading to odour after muck spreading	All muck which has removed from the heaps and spread on the land will be ploughed in within 24 hours of spreading.
Odour coming from muck heaps	As per the odour impact assessment, carried out by a qualified air quality consultant, the highest odour emitted from any of the muck heaps was 0.07ou/m <sup>3</sup> , significantly lower than the Environment agency benchmark of 3ou/m <sup>3</sup> . On a side note, nowhere in the UK will you find a covered muck heap in a field, this is because if covered the muck is concentrated and actually emits a higher odour rather than if it is open to the air, where it gradually disperses. When uncovered the muck is open to rainfall also, which would actually dilute the odour making it less potent. As long as muck heaps are more than 10m away from a watercourse, they can be left uncovered, as confirmed by Yorkshire Water as they are not a danger to contamination.

### **Reporting of Odour Complaints**

At the entrance to the field up the high lane track, there will be a sign with my name and contact number, this will ask the genral public or any of the closest receptors to report any complaints to myself which I can then then look into. There will also be a sign at the main farm base for anyone who should not see the sign located up the high lane track.

### **Odour Complaint Procedures**

- Any odour complaint received will be dealt with by myself.

- If a complaint is made, the complaints log will be completed.
- Information will normally be collected by visiting the complainant, although in some cases, contact may be made by telephone.
- After details of the complaint have been compiled, the cause will be investigated, with reference to:
  - ♣ The activities taking place on the farm at the time.
  - ♣ The timing of the complaint and whether weekday, weekend etc.
  - ♣ The weather conditions at the time.
- The likely reasons for the complaint will be added to the log and the complainant will be contacted as appropriate.
- The feasibility of making changes to the activities responsible for the complaint will be considered. If changes are made, the Odour Management Plan will be amended accordingly.

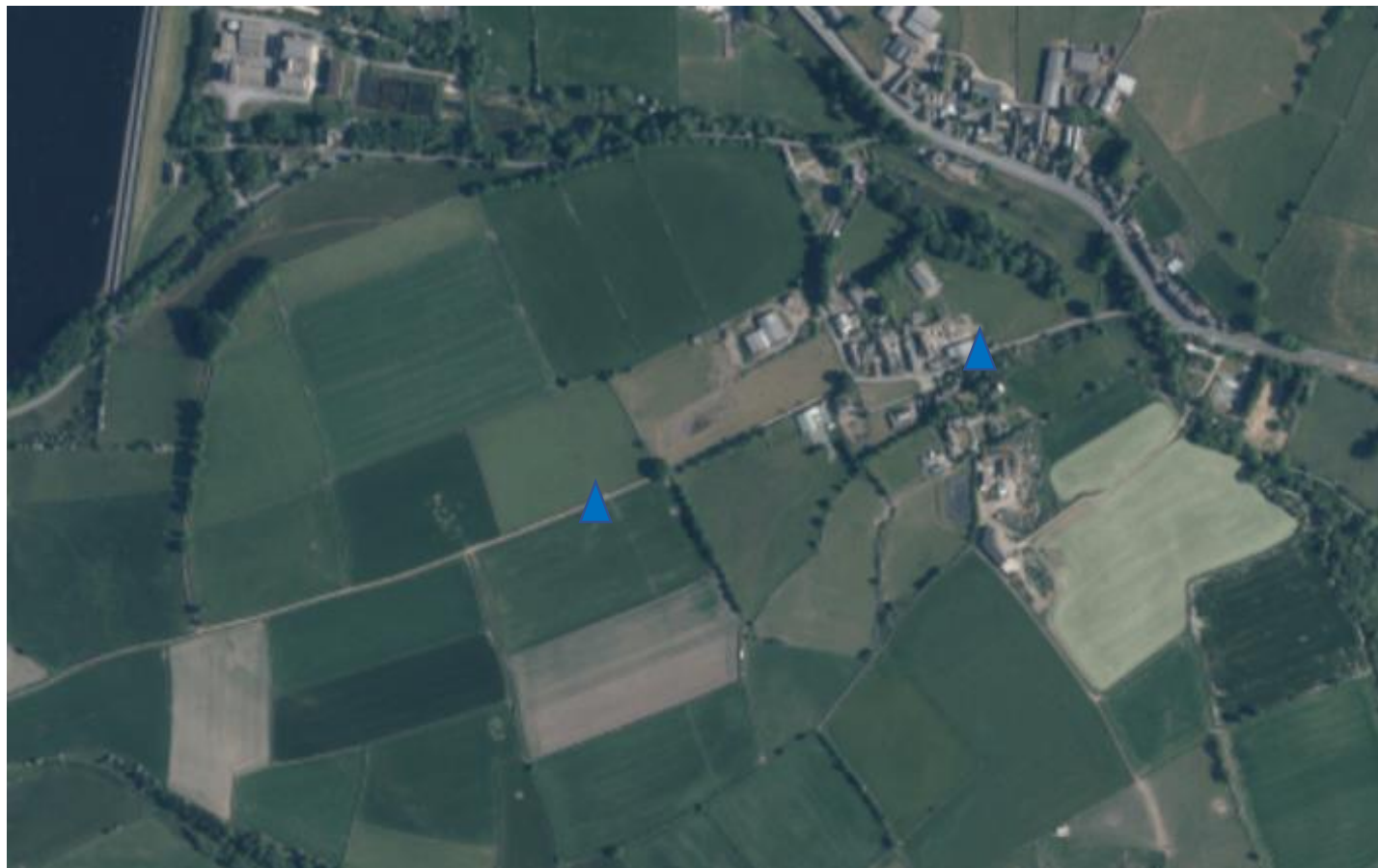
#### **Other Information**

Neighbours will be notified and informed prior to any activity taking place which may cause an odour or noise issue.

Daily olfactory checks will be undertaken at the boundary of nearby residential properties, this will be recorded in a table using the following comments:

- Odour present and causes a nuisance.
- Odour present but not a nuisance.
- Odour not present.

*Aerial photograph below showing location of signs (represented with blue triangle) with name and contact number on for any potential odour complaints.*



*Figure 7. Aerial photograph below showing muck storage points (muck heaps) represented by orange circles, and the routes that would be taken by the tractor and trailer to access them, shown with yellow arrows. The pink arrow shows the route taken under the existing operation when hauling muck from the existing shed.*



