



**PLANNING STATEMENT**

**FOR THE**

**ENGINEERING OPERATIONS TO CREATE AN EARTH BANK SLURRY STORE**

**AT**

**FOREST FARM**

**ASHBOURNE ROAD**

**CALTON MOOR**

**ASHBOURNE**

**DE6 2BU**

**ON BEHALF OF**

**BIRCHWOOD PARK FARMS**

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## **1.0 INTRODUCTION**

- This Statement has been produced to accompany a full planning application relating to a scheme to create an earth banked slurry store below the new dairy unit.
- Staffordshire Moorlands District Council have already approved a phased expansion of the farm to create a new dairy unit and this scheme will enable the applicants to provide the necessary storage to comply with industry legislation (Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010, The Reduction and Prevention of Agricultural Diffuse Pollution (England) Regulations 2018).
- The site proposed for the new lagoon is within close proximity to the new dairy unit and allows the slurry to be fed to the lagoon by gravity.

## **2.0 AGRICULTURAL JUSTIFICATION**

- Birchwood Park Farms currently operates across three land holdings, farming approximately 675 acres (273.258 hectares).
- The farm partnership has grown over a number of years, initially started in 1991 on a 90 acres dairy farm near Burton on Trent with a herd of approximately 60 cows. In 2000, the family moved to Birchwood Park Farm, allowing the herd size to increase to 140 head.
- In 2011, the land at Moor Lane, Stockwell Heath was purchased and more recently Forest Farm in 2016. Over this period, the applicants have restructured their business to facilitate growth and increased the size of the dairy herd to 300 cows with approximately 650 head of cattle in total.
- Birchwood Park Farms has achieved organic status with milk being sold to ARLA who supply McDonalds restaurants. The organic milk market is more stable than commercial milk prices.
- Organic dairy farms operate a lower stocking density than conventional units and therefore the applicants have built up a substantial landholding to meet the certification requirements. Furthermore, the environmental objectives achieved with the organic certification complement the applicant's business.

- Birchwood Park Farms operates across three main farm units. These units can be summarised as follows:

#### **BIRCHWOOD PARK FARMS - FARM HOLDINGS**

|                                                                                                                          | <b>Acres</b> | <b>Hectares</b> |
|--------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|
| <b>Birchwood Park Farm, Roston</b><br>Dairy unit, Grassland and Arable                                                   | 354          | 143.262         |
| <b>Moor Lane Farm, Moor Lane, Stockwell Heath</b><br>Finishing unit and Licensed TB Finishing Unit, Grassland and Arable | 165          | 66.775          |
| <b>Forest Farm, Swinscoe, Ashbourne</b><br>Dairy unit, all grassland                                                     | 126.22       | 51.081          |
| <b>Land at Darlbury Lees, Ashbourne</b><br>Cattle grazing                                                                | 30           | 12.141          |
| <b>TOTAL LAND FARMED</b>                                                                                                 | <b>675</b>   | <b>273.258</b>  |

- All dairy youngstock are homebred, breeding their own herd replacements.
- With the exception of Birchwood Park Farm, the above farms are owned by the applicants. Birchwood Park Farm is the only tenanted holding and is in need of significant capital investment to improve the standard of the livestock housing at the farmstead. Due to the complications in relation to tenancy law, security of tenure and financial implications, it is not possible to invest further capital into Birchwood Park Farm as the applicant do not own the freehold interest.
- Therefore, to secure the future of the farm partnership, the applicants are carrying out a program of investment at Forest Farm to provide expand and improve the standard of livestock housing available. It is also the intension to commence organic milk production at this holding.
- The existing livestock buildings provide modern accommodation for the dairy herd and youngstock.

### 3.0 PRINCIPLE OF THE DEVELOPMENT

- Local Plan Policy SS10 of the Local Plan confirms that rural areas of the District will provide only for development which has an essential need to be located in the countryside (amongst other associated development, for example farm diversification).
- This agricultural holding is a long-established agricultural enterprise operating across three farms. The proposed engineering operations are essential to provide lagoon storage from the housed cattle. Therefore, the proposed accords with Policy SS10 of the Local Plan.

### 4.0 STORAGE REQUIREMENTS AND SIZE

- Industry representatives AHDB provide Guidance to dairy farmers specifically in relation to slurry storage. The extract below sets out the current legislative framework and how this is expected to evolve in future years to require more slurry storage capacity on dairy farms.

**Extract from AHDB** (<https://ahdb.org.uk/knowledge-library/slurry-stores-required-capacity>)

#### “England, Scotland and Wales

The Water Resources Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations

Commonly known as SSAFO regulations, this legislation requires a minimum of four months of slurry storage and is enforced across the whole of England, Scotland and Wales. However, since this legislation came into force, it has been cancelled out by the regulations listed below. It is, therefore, unlikely that four months will be sufficient.

More information on the SSAFO regulations can be found on [Gov.UK](https://www.gov.uk).

#### The Nitrate Pollution Prevention Regulations (NVZ Regulations)

The NVZ regulations are enforced only within designated NVZ areas. To comply, you must have enough slurry storage to do the following:

- Comply with the minimum storage period for livestock manure
  - 22 weeks for cattle slurry
  - 26 weeks for pig slurry
- Adhere to the NVZ closed periods for spreading

- Spread slurry only in the correct conditions
- Comply with the maximum stocking densities and application rates of nitrogen

More information on the NVZ regulations can be found on [Gov.UK](https://www.gov.uk).

## England

### The Reduction and Prevention of Agricultural Diffuse Pollution (England) Regulations

Commonly known as the ‘Farming Rules for Water’, this regulation was introduced in England in 2018.

These rules do not state a minimum capacity for your store. However, it does stipulate that you must plan your applications of manures and fertilisers so that you do not exceed the needs of the crop or soil. You can use [AHDB’s nutrient management guide RB209](#) to create a nutrient management plan which would be required to demonstrate this.

With every slurry application, you must be able to show that the application was made to meet the nutrient needs of the crop and not to empty your slurry store. This means that you would also need to justify the timing of your slurry application.”

- Industry guidance recommends that farms provide 6 months storage. The AHDB slurry wizard assists farms to calculate their storage requirements based upon the number of livestock, type of storage, housing system, annual rainfall and other relevant factors.
- The Report produced for Forest Farm is included in Appendix I which provides an indepth report of the slurry storage requirements for the farm. This methodology has been used to calculate the size, depth and type of slurry store proposed at Forest Farm.
- The store proposed is of a suitable size, type and design to comply with Industry Legislation and Guidance.

## 5.0 SITING & DESIGN

- The site proposed is the closest practical location to the new dairy unit that meets the functional requirements of the store (i.e. to allow slurry to flow by gravity from the cubicle housing to the store) whilst balancing other planning considerations such as landscape and visual impact.
- The site is within the 'White Peak' Character Area and the 'Limestone highland fringe' landscape character type, as identified in the Staffordshire Moorlands Landscape and Settlement Character Assessment (LSCA). The Guidance does not specifically reference proposals for earth banked slurry stores however the same principle can be applied to other agricultural development such as buildings. The LSCA states for this landscape character type: *'The colour of prefabricated agricultural buildings should be determined taking careful account of position, predominant tones of adjacent vegetation, local materials and sky, so as to minimise the visual impact of the development.'*
- The proposed slurry store is sited adjacent to existing modern agricultural development and will be cut-in to the existing landform. The embankments will be reseeded and incorporated into the management of the existing field parcel.
- The main visible element of the store will be perimeter fencing around the lagoon which is essential for farm safety. The type of fencing proposed is agricultural style and design.
- The overall height of the embankments have been minimised by cutting the lagoon into the existing landform.

## 6.0 ACCESS

- Access to the proposed lagoon is gained through the existing yard area from the public highway.

## **7.0 VISUAL IMPACT**

- The proposed store will be cut-in to the existing landform to create the lagoon. Furthermore, in the wider landscape, the lagoon is sited in a natural dip in the landscape with a rising land level towards the North.
- This significantly reduces the visual impact of the store particularly when viewed from the North, where the lagoon will be screened by the existing landform and building range.
- From the South, there are no public roads or footpaths where the development would be clearly visible. As the proposed building sits below the new dairy complex, any distant views of the proposed store are in context with other adjacent agricultural development with the backdrop of the higher land behind.

## **8.0 AMENITY**

- There are no residential dwellings, other than the applicant's farmhouse, that are located in close proximity to the development. Therefore, the proposed accords with Local Plan Policy DC1.

## **9.0 BIODIVERSITY NET GAIN (BNG)**

- In accordance with Legislation and Policy, this scheme includes a full BNG Assessment completed by Dunham Ecology providing a net BNG gain equating to 12.93%. This habitat is provided on the farm.

## 9.0 CONCLUSION

- This scheme is part of a substantial capital investment program at Forest Farm to provide a modern organic dairy unit that can remain economically viable in a challenging dairy sector.
- The Farmers Guardian published on the 31<sup>st</sup> July 2024 that ***“440 dairy producers left the industry between April 2023 and April 2024, with the majority of producers leaving over the winter months. AHDB Dairy's latest survey of major milk buyers estimated there were just 7,130 dairy producers in Great Britain as of April”.***
- The economic challenges faced by the dairy sector is a material planning consideration which should be given **significant weight** to ensure that existing dairy farmers can remain economically sustainable, a key element of NPPF policy.
- The proposed store has been carefully sited, adjacent to existing agricultural development and is of a size and scale which is both functionally justified and proportionate to the new dairy unit.
- Due to the design, topography of the land and site within a natural hollow, the proposed store sits comfortably within the local landscape.
- The proposal accords with all National and Local Planning Policies.
- Finally, consideration should also be given to the positive contribution which this farm business makes to the local landscape, rural economy and food production, managing a substantial amount of land across three holdings.

## **Appendix I – AHDB Slurry Storage Calculation**



## Slurry Wizard ~ Slurry Data Entry

### Stores, yard and roof rainfall, parlour washings and wash water entry

#### Baseline farm data

|                                                                                      |              |
|--------------------------------------------------------------------------------------|--------------|
| Farm name / reference                                                                | Forest Farm  |
| Total farmable area (hectares)                                                       | 51 Ha        |
| Slurry store 10 figure grid reference (e.g. SE3548629596)                            | SK1192848433 |
| Cattle in herd/ pig herd size (includes calves, heifers, bulls, sows, finishers etc) | 150 animals  |
| Cows in milk                                                                         | 150          |
| Milk yield/cow                                                                       | 7000 litres  |
| Depreciation buildings (%)                                                           | 5 %          |
| Interest rate (%)                                                                    | 6.75 %       |
| Water cost (£m3)                                                                     | 1.8 £m3      |
| Slurry spreading cost (£/cubic metre)                                                | 3.0 £m3      |
| Water storage cost (£/cubic metre)                                                   | 85.0 £m3     |
| Divert water cost (£/square metre)                                                   | 5.0 £m2      |
| Roofing cost (£/square metre)                                                        | 120.0 £m2    |
| Slurry store cost (£/cubic metre)                                                    | 75.0 £m3     |

#### Slurry storage capacity for earth bank stores

|          | Total Depth<br>Do NOT deduct freeboard<br>from the total depth | Slurry store bank slope*       | Top length | Bottom length | Top width | Bottom width | Total volume | 750mm freeboard | Working volume | Surface area | Tick if Covered Store    | Surface area to store (m2) |
|----------|----------------------------------------------------------------|--------------------------------|------------|---------------|-----------|--------------|--------------|-----------------|----------------|--------------|--------------------------|----------------------------|
|          | (m)                                                            | Please select                  | (m)        | (m)           | (m)       | (m)          | (m3)         | (m3)            | (m3)           | (m2)         |                          |                            |
| Store 1  | 3.8                                                            | Bank slope of 1:1 (45 degrees) | 40         | 32.4          | 32        | 24.4         | 3897         | 960             | 2937           | 1280         | <input type="checkbox"/> | 1280                       |
| Store 2  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 3  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 4  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 5  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 6  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 7  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 8  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 9  |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
| Store 10 |                                                                | Bank slope of 1:1 (45 degrees) |            | 0             |           | 0            | 0            | 0               | 0              | 0            | <input type="checkbox"/> | 0                          |
|          |                                                                |                                |            |               |           |              | Totals       | 3897            | 960            | 2937         | 1280                     | 1280                       |
|          |                                                                |                                |            |               |           |              | Total area   | 1280            |                |              |                          |                            |

\*Slope factor: click on cell for options

Earth bank lagoons must have 750mm of freeboard to protect banks

#### Slurry storage capacity for rectangular & circular tower stores

|                         | Length<br>(m) | Width<br>(m) | Circumference<br>of circular<br>store<br>(m) | Diameter of<br>circular<br>store<br>(m) | Depth (m)<br>(less 0.3m<br>freeboard) | Capacity<br>(m3) | Surface<br>area<br>(m2) | Surface<br>area to<br>store (m2) | Tick if<br>Covered<br>Store |
|-------------------------|---------------|--------------|----------------------------------------------|-----------------------------------------|---------------------------------------|------------------|-------------------------|----------------------------------|-----------------------------|
| Store 1                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 2                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 3                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 4                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 5                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 6                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 7                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 8                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 9                 |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 10                |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 11 - circular     |               |              |                                              | 0.0                                     |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 12 - circular     |               |              |                                              | 0.0                                     |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 13 - circular     |               |              |                                              | 0.0                                     |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 14 - circular     |               |              |                                              | 0.0                                     |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Store 15 - circular     |               |              |                                              | 0.0                                     |                                       | 0                | 0                       | 0                                | <input type="checkbox"/>    |
| Total existing capacity |               |              |                                              |                                         |                                       | 0                | 0                       | 0                                |                             |

Freeboard : reduce the depth to allow for freeboard (0.3 metres for a steel or concrete store)

## Slurry storage capacity for slurry bags

|                  | Volume (m3) |
|------------------|-------------|
| Store 1          |             |
| Store 2          |             |
| Store 3          |             |
| Store 4          |             |
| Store 5          |             |
| Store 6          |             |
| Store 7          |             |
| Store 8          |             |
| Store 9          |             |
| Store 10         |             |
| Total bag volume | 0           |

## Slurry separator

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Do you operate a separator for the slurry entering the store(s) | No |
| % reduction in slurry                                           |    |

Adjust the % to reflect the average reduction in slurry volume (refer to manufacturers guidance)

## Parlour washings to slurry store

|                                                 |     |
|-------------------------------------------------|-----|
| Parlour washings to slurry store                | Yes |
| Parlour washing litres per cow per day (l/hd/d) | 20  |

Note: Suggested 5 to 15 l/hd/d robotic milkers (check with manufacturer). 20 l/hd/d low pressure system. 30 l/hd/d high pressure system.

## Pig wash water to slurry store

|                                                  |                                          |
|--------------------------------------------------|------------------------------------------|
| Pig wash water to slurry store                   | No                                       |
| Do you want to use preset NVZ wash water values? | No - Use own values for each animal type |

Please select from drop-down list

Please select from drop-down list

| Pigs                                                              | NVZ Preset Values<br>Wash water l/place/day | User Entry Values<br>Wash water l/place/day | User Entry Values<br>Wash water total l/day |
|-------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| 1 sow place inc. litters - Litter up to 7kg - With syn amino acid | 1.43                                        |                                             |                                             |
| 1 sow place inc. litters - Litter up to 7kg - No syn amino acid   | 1.43                                        |                                             |                                             |
| Dry sow - Above 150kg                                             | 0.08                                        |                                             |                                             |
| Weaner place - 7 to 13kg                                          | 0.28                                        |                                             |                                             |
| Weaner place - 13 to 31kg                                         | 0.37                                        |                                             |                                             |
| Grower place - 31 to 66kg - Dry fed                               | 0.27                                        |                                             |                                             |
| Grower place - 31 to 66kg - Liquid fed                            | 0.27                                        |                                             |                                             |
| Finisher place - Over 66kg - Dry fed                              | 0.23                                        |                                             |                                             |
| Finisher place - Over 66kg - Liquid fed                           | 0.23                                        |                                             |                                             |
| Maiden gilt place - Over 66kg                                     | 0.08                                        |                                             |                                             |
| Boar - 66kg to 150kg                                              | 0.08                                        |                                             |                                             |
| Boar - Over 150kg                                                 | 0.08                                        |                                             |                                             |

## Uncovered areas of dirty yards, silage silos and earth bank surrounds to slurry store

|               | Length<br>(m) | Width<br>(m) | Area<br>(m2) |
|---------------|---------------|--------------|--------------|
| Bank of store | 144           | 2            | 288          |
| Yard 2        |               |              | 0            |
| Yard 3        |               |              | 0            |
| Yard 4        |               |              | 0            |
| Yard 5        |               |              | 0            |
| Yard 6        |               |              | 0            |
| Yard 7        |               |              | 0            |
| Yard 8        |               |              | 0            |
| Yard 9        |               |              | 0            |
| Yard 10       |               |              | 0            |
| Yard 11       |               |              | 0            |
| Yard 12       |               |              | 0            |
| Yard 13       |               |              | 0            |

Note: For each yard please either enter yard dimensions and the tool will calculate the yard area, or if yard area known please enter the yard area in m2.

|                 |  |  |     |
|-----------------|--|--|-----|
| Yard 14         |  |  | 0   |
| Yard 15         |  |  | 0   |
| Yard 16         |  |  | 0   |
| Yard 17         |  |  | 0   |
| Yard 18         |  |  | 0   |
| Yard 19         |  |  | 0   |
| Yard 20         |  |  | 0   |
| Total yard area |  |  | 288 |

## Roof water area to slurry store

|                 | Length<br>(m) | Width<br>(m) | Area<br>(m2) |
|-----------------|---------------|--------------|--------------|
| Roof 1          |               |              | 0            |
| Roof 2          |               |              | 0            |
| Roof 3          |               |              | 0            |
| Roof 4          |               |              | 0            |
| Roof 5          |               |              | 0            |
| Roof 6          |               |              | 0            |
| Roof 7          |               |              | 0            |
| Roof 8          |               |              | 0            |
| Roof 9          |               |              | 0            |
| Roof 10         |               |              | 0            |
| Roof 11         |               |              | 0            |
| Roof 12         |               |              | 0            |
| Roof 13         |               |              | 0            |
| Roof 14         |               |              | 0            |
| Roof 15         |               |              | 0            |
| Total roof area |               |              | 0            |



## Slurry Wizard ~ Livestock Data Entry

| Livestock                     | Age                       | Liveweight/milk yield (litres) | Number of livestock | % collected as slurry | Annual N output kg/year | Daily excreta (l/day)    | Total collected as slurry (l/day) | Total N (kg/year) |
|-------------------------------|---------------------------|--------------------------------|---------------------|-----------------------|-------------------------|--------------------------|-----------------------------------|-------------------|
| <b>Cattle</b>                 |                           |                                |                     |                       |                         |                          |                                   |                   |
| Dairy Cow                     | After first calf          | High ( > 9000)                 |                     | 100%                  | 115.0                   | 64.00                    | 0                                 | 0                 |
| Dairy Cow                     | After first calf          | Medium (6000-9000)             | 150                 | 100%                  | 101.0                   | 53.00                    | 7950                              | 15150             |
| Dairy Cow                     | After first calf          | Low ( < 6000)                  |                     | 100%                  | 77.0                    | 42.00                    | 0                                 | 0                 |
| Dairy heifer replacement      | From 12 months to calving | -                              | 50                  | 0%                    | 61.0                    | 40.00                    | 0                                 | 3050              |
| Dairy heifer replacement      | 2 to 12 months            | -                              | 40                  | 0%                    | 29.0                    | 20.00                    | 0                                 | 1160              |
| Beef Suckler                  | Over 24 months            | Large ( > 500)                 |                     | 100%                  | 83.0                    | 45.00                    | 0                                 | 0                 |
| Beef Suckler                  | Over 24 months            | Small ( < 500)                 |                     | 100%                  | 61.0                    | 32.00                    | 0                                 | 0                 |
| Grower                        | Over 24 months            | -                              |                     | 100%                  | 50.0                    | 32.00                    | 0                                 | 0                 |
| Grower                        | 12 to 24 months           | -                              |                     | 100%                  | 50.0                    | 26.00                    | 0                                 | 0                 |
| Grower                        | 2 to 12 months            | -                              |                     | 100%                  | 28.0                    | 20.00                    | 0                                 | 0                 |
| Bulls Beef                    | Over 2 months             | -                              |                     | 100%                  | 54.0                    | 26.00                    | 0                                 | 0                 |
| Bulls for breeding            | Over 24 months            | -                              |                     | 100%                  | 48.0                    | 26.00                    | 0                                 | 0                 |
| Bulls for breeding            | 2 to 24 months            | -                              |                     | 100%                  | 50.0                    | 26.00                    | 0                                 | 0                 |
| Calf                          | Under 2 months            | -                              | 10                  | 0%                    | 1.4                     | 7.00                     | 0                                 | 14                |
| <b>Total number of cattle</b> |                           |                                | <b>250</b>          |                       |                         | <b>Totals for cattle</b> | <b>7950</b>                       | <b>19374</b>      |
| <b>Pigs</b>                   |                           |                                |                     |                       |                         |                          |                                   |                   |
| 1 sow place inc. litters      | Litter up to 7kg          | With syn amino acid            |                     | 100%                  | 16.0                    | 11.00                    | 0                                 | 0                 |
| 1 sow place inc. litters      | Litter up to 7kg          | No syn amino acid              |                     | 100%                  | 18.0                    | 11.00                    | 0                                 | 0                 |
| Dry sow                       | Above 150kg               | -                              |                     | 100%                  | 17.5                    | 8.67                     | 0                                 | 0                 |
| Weaner place                  | 7 to 13kg                 | -                              |                     | 100%                  | 1.0                     | 1.00                     | 0                                 | 0                 |
| Weaner place                  | 13 to 31kg                | -                              |                     | 100%                  | 4.2                     | 1.67                     | 0                                 | 0                 |
| Grower place                  | 31 to 66kg                | Dry fed                        |                     | 100%                  | 7.7                     | 3.33                     | 0                                 | 0                 |
| Grower place                  | 31 to 66kg                | Liquid fed                     |                     | 100%                  | 7.7                     | 6.00                     | 0                                 | 0                 |
| Finisher place                | Over 66kg                 | Dry fed                        |                     | 100%                  | 10.6                    | 4.33                     | 0                                 | 0                 |
| Finisher place                | Over 66kg                 | Liquid fed                     |                     | 100%                  | 10.6                    | 8.67                     | 0                                 | 0                 |
| Maiden gilt place             | Over 66kg                 | -                              |                     | 100%                  | 11.1                    | 4.33                     | 0                                 | 0                 |
| Boar                          | 66kg to 150kg             | -                              |                     | 100%                  | 12.0                    | 5.00                     | 0                                 | 0                 |
| Boar                          | Over 150kg                | -                              |                     | 100%                  | 17.5                    | 8.67                     | 0                                 | 0                 |
| <b>Total number of pigs</b>   |                           |                                | <b>0</b>            |                       |                         | <b>Totals for pigs</b>   | <b>0</b>                          | <b>0</b>          |
| <b>Sheep</b>                  |                           |                                |                     |                       |                         |                          |                                   |                   |
| Ewe                           | Lamb under 6 months       | <60kg                          |                     | 100%                  | 7.60                    | 3.33                     | 0                                 | 0                 |
| Ewe                           | Lamb under 6 months       | >60kg                          |                     | 100%                  | 11.90                   | 5.00                     | 0                                 | 0                 |
| Lamb                          | 6 to 9 months             | -                              |                     | 100%                  | 0.50                    | 1.67                     | 0                                 | 0                 |
| Lamb                          | Over 9 months             | -                              |                     | 100%                  | 0.70                    | 1.67                     | 0                                 | 0                 |
| <b>Goats</b>                  |                           |                                |                     |                       |                         |                          |                                   |                   |
| Goat                          | -                         | -                              |                     | 100%                  | 15.00                   | 3.67                     | 0                                 | 0                 |
| <b>Deer</b>                   |                           |                                |                     |                       |                         |                          |                                   |                   |
| Breeding hinds                | -                         | -                              |                     | 100%                  | 15.20                   | 5.00                     | 0                                 | 0                 |
| Other deer                    | -                         | -                              |                     | 100%                  | 12.00                   | 3.67                     | 0                                 | 0                 |
| <b>Horses</b>                 |                           |                                |                     |                       |                         |                          |                                   |                   |
| Horse                         | -                         | -                              |                     | 100%                  | 21.00                   | 24.67                    | 0                                 | 0                 |
| <b>Layers</b>                 |                           |                                |                     |                       |                         |                          |                                   |                   |
| Replacement layer pullets     | Under 17 weeks            | -                              |                     | 100%                  | 0.21                    | 0.04                     | 0                                 | 0                 |
| Laying hens - cages           | Over 17 weeks             | -                              |                     | 100%                  | 0.40                    | 0.12                     | 0                                 | 0                 |
| Laying hens - free range      | Over 17 weeks             | -                              |                     | 100%                  | 0.46                    | 0.10                     | 0                                 | 0                 |
| <b>Broilers</b>               |                           |                                |                     |                       |                         |                          |                                   |                   |
| Broiler places                | -                         | -                              |                     | 100%                  | 0.33                    | 0.05                     | 0                                 | 0                 |
| Broiler breeder pullets       | Under 25 weeks            | -                              |                     | 100%                  | 0.29                    | 0.04                     | 0                                 | 0                 |
| Broiler breeders              | Over 25 weeks             | -                              |                     | 100%                  | 0.70                    | 0.11                     | 0                                 | 0                 |
| <b>Turkeys</b>                |                           |                                |                     |                       |                         |                          |                                   |                   |
| Male                          | -                         | -                              |                     | 100%                  | 1.23                    | 0.14                     | 0                                 | 0                 |
| Female                        | -                         | -                              |                     | 100%                  | 0.91                    | 0.11                     | 0                                 | 0                 |
| <b>Other</b>                  |                           |                                |                     |                       |                         |                          |                                   |                   |
| Ducks                         | -                         | -                              |                     | 100%                  | 0.75                    | 0.08                     | 0                                 | 0                 |
| Ostriches                     | -                         | -                              |                     | 100%                  | 1.40                    | 0.00                     | 0                                 | 0                 |

|                             |      |       |
|-----------------------------|------|-------|
| Totals for all animal types | 7950 | 19374 |
|-----------------------------|------|-------|



## Slurry Wizard ~ Slurry Report

[Export worksheets to PDF](#)

### Farm Nitrogen Loading

**379 Kg Nitrogen per Ha**
**NB This is the nitrogen loading BEFORE the import or export of manure**

| Action points                           |                                                              |
|-----------------------------------------|--------------------------------------------------------------|
| Number of months of storage             | 6                                                            |
| Maximum likely 2 day rainfall           | 85                                                           |
| Recommended reception pit size (m3)     | 35                                                           |
| Farming Rules for Water recommendations | You comply with the guidance for minimum storage of 6 months |
| Roof water collection recommendations   |                                                              |
| Slurry store cover recommendations      |                                                              |

|                                                                                                                  |     | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Total    |
|------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| Days                                                                                                             |     | 30  | 31  | 30  | 31  | 31  | 28  | 31  | 30  | 31  | 30  | 31  | 31  | 365 days |
| Total cattle excreta as slurry (m3)                                                                              |     | 239 | 246 | 239 | 246 | 246 | 223 | 246 | 239 | 246 | 239 | 246 | 246 | 2902 m3  |
| % Cattle excreta to slurry store<br>(100% for housed dairy, 20 to 50% if housed overnight, 10% for grazed dairy) |     | 30  | 100 | 100 | 100 | 100 | 100 | 100 | 30  | 20  | 10  | 10  | 10  |          |
| Total pig excreta as slurry (m3)                                                                                 |     | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |          |
| % Pig excreta to slurry store                                                                                    |     | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |          |
| Total other livestock excreta as slurry (m3)                                                                     |     | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |          |
| % Other excreta to slurry store                                                                                  |     | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |          |
| Excreta to slurry store (m3)                                                                                     |     | 72  | 246 | 239 | 246 | 246 | 223 | 246 | 72  | 49  | 24  | 25  | 25  | 1,712 m3 |
| Slurry separated (m3)                                                                                            | No  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | - m3     |
| Parlour washings (m3)                                                                                            | Yes | 90  | 93  | 90  | 93  | 93  | 84  | 93  | 90  | 93  | 90  | 93  | 93  | 1,095 m3 |
| Pig wash water (m3)                                                                                              | No  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | - m3     |

|                                      |  | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Total    |
|--------------------------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| Grid reference average rainfall (mm) |  | 88  | 110 | 106 | 121 | 109 | 74  | 89  | 76  | 60  | 71  | 52  | 61  | 1,016 mm |
| Own average rainfall (mm)            |  |     |     |     |     |     |     |     |     |     |     |     |     | mm       |
| Adjusted likely rainfall, (mm)       |  | 102 | 126 | 122 | 139 | 125 | 85  | 103 | 88  | 69  | 81  | 60  | 70  | 1,169 mm |

|                                        |         | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Total    |
|----------------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| Storage required                       |         | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | No    | No    | No    | No    | No    |          |
| Yard run off area to slurry store (m3) | 288 m2  | 29    | 36    | 35    | 40    | 36    | 24    | 30    | 25    | 20    | 23    | 17    | 20    | 337 m3   |
| Slurry store rainfall to store (m3)    | 1280 m2 | 130   | 162   | 156   | 178   | 161   | 108   | 131   | 113   | 88    | 104   | 76    | 90    | 1,496 m3 |
| Roof water area to store (m3)          | 0 m2    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | - m3     |
| Total cubic metres (m3)                |         | 321   | 537   | 519   | 557   | 536   | 439   | 500   | -     | -     | -     | -     | -     | 3,411 m3 |
| Cumulative production (m3)             |         | 321   | 858   | 1,378 | 1,935 | 2,471 | 2,910 | 3,411 | 3,411 | 3,411 | 3,411 | 3,411 | 3,411 | 3,411 m3 |
| Total storage capacity (m3)            | 2937    | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 | 2,937 m3 |
| Capacity less production (m3)          |         | 2,617 | 2,079 | 1,560 | 1,003 | 467   | 27    | -473  | -473  | -473  | -473  | -473  | -473  | -473 m3  |

0

| Cost/Benefits                   | Net Benefit £/year |
|---------------------------------|--------------------|
| Divert roof water               | 0.0                |
| Divert roof water & harvest     | 0.0                |
| Roof dirty yard                 | -1536.2            |
| Roof dirty yard & harvest water | -4309.3            |

**The cost/benefit is based on a slurry storage cost of £75/cubic metre**