



**DESIGN AND ACCESS STATEMENT
INCLUDING SUPPORTING INFORMATION IN RELATION TO A
FULL PLANNING APPLICATION FOR THE CREATION
OF AN EARTH BANK SLURRY LAGOON**

AT

**BEARWARDCOTE FARM
DERBY ROAD
ETWALL
DE65 6LR**

ON BEHALF OF

MR A ROWORTH

Report produced by:-

Bagshaws LLP

Vine House

Ashbourne

DE6 1AE

Tel: 01335 342201

dianne.brown@bagshaws.com

**Bearwardcote Farm, Etwall - Supporting Statement.
December 2021**

1.0 INTRODUCTION AND BACKGROUND

- This Report has been produced to support a Full Planning application to South Derbyshire District Council in relation to a proposal for the creation of an earth bank slurry lagoon at Bearwardcote Farm, Etwall.
- Bearwardcote Farm is accessed from Derby Road (A516). Derby Road is a classified road.
- The majority of Bearwardcote Farm including the application site is located within Flood Zone 1.
- The applicant runs a substantial livestock enterprise, farming approximately 400 acres of land. The land is used for cattle grazing and fodder making.
- The dairy enterprise consists of over 500 head of cattle with 220 milking cows and 60 heifers. They run a closed herd and breed all of their own replacement herd.
- The family are 3rd generation farmers and have been established at Bearwardcote Farm for over 40 years.
- Below is an extract from Google Earth showing the existing layout of the farm



- At present, the farm has an increasingly urgent problem of having insufficient slurry storage capacity.
- As you will see on the above layout, there is only one slurry storage facility on the holding. This slurry store measures approximately 30m long x 25m wide and has a capacity (including rainwater) of 2,430m³ (slurry storage – 2,000m³). This store provides the applicant with approximately 3 months storage. As a result the store is emptied regularly, during all weathers and ground conditions.
- The applicant has calculated based on 220 head of dairy cows and 60 head of dairy heifers over a 6 month period, he requires slurry storage capacity of 2,966m³ (not including rainwater).
- The applicant wishes to create an earth bank slurry store to the north of the farm which would provide an additional 3 months of slurry storage. This would be used as a secondary store giving the applicant a combined slurry storage capacity of 6 months.
- The proposed earth bank slurry store will have a capacity (including freeboard) of 2,667m³ (slurry storage – 1,860m³). This gives the applicant the opportunity to increase his cattle head without the need for additional storage.
- This slurry store will be used in conjunction with the applicant's substantial existing farm business.
- No changes to the existing farm access are required as a result of this development.

2.0 REQUIREMENT FOR A SLURRY STORE

- As noted above, the proposed earth bank slurry store would give the applicant enough slurry storage space for 6 months.
- Slurry from the main pit will be pumped/tanked to the additional store located central to the holding. Slurry will be discharged at the bottom of the lagoon so that the disturbance at the surface will be minimal.
- The main store will be used to spread on land surrounding the farm buildings. The additional store will be used to spread on land north of the holding. This will improve efficiency. The applicant currently has over 140 acres of land on the north side of the holding.
- This store (combined with the existing store) will be large enough to accommodate the maximum quantity of slurry likely to be produced and directed to the system in any continuous six-month period, including rainfall.
- Bearwardcote Farm is currently not included within an NVZ zone but should this situation change in the future they want to be able to comply with the regulations from now and not have to implement changes last minute.
- The applicant currently only has enough slurry storage for approximately 3 months. This existing store is located east of the existing buildings. Due to the capacity, the store is emptied regularly, during all weathers and ground conditions.
- Various locations have been considered around the holding for the siting of the additional slurry store however these have been deemed unsuitable due to the topography of the land and soil type.
- The proposed store is not located within a groundwater Source Protection Zone 1 or within 50 metres of a borehole, well, or spring used to supply drinking water.
- The grading of the earth bank minimises the impact on the landscape.
- The embankment surrounding the lagoon will be seeded with grass to prevent erosion.
- Paul Chambers, Environment Officer at the Environment Agency has visited the site and can confirm the Environment Agency does not have any concerns about the proposed site for the slurry store. The officer fully supports the provision of adequate slurry storage on the holding.

- Initial soil tests have been carried out in the proposed location. The results confirm the soil in this location meets the requirements to have a permeability of 0.000001 mm per second or less. Impermeable soil is present to a depth of at least one metre below the bottom of the store. Soils with a clay content of between 20-30 per cent are generally ideal and produce stable embankments.
- The construction will utilise the existing soil on site to suitably seal the walls of the lagoon.
- The proposed earth bank slurry store will have a capacity (including freeboard) of 2,667m³ (slurry storage – 1,860m³). Earth bank stores are required to be designed and constructed to include a freeboard of 750mm, and must never be filled above this level.
- Due to the capacity being below 3500m³, initial screening for air quality impacts is not required.
- This additional store will avoid the need for spreading when ground conditions are unsuitable so tanking after wet weather will not be necessary. Tanking at the right time, less often and in better conditions maximises yields, protects soils and saves fuel.
- The spreading/stirring of slurry will not be required to be carried out during fly season. Spreading/stirring of slurry will occur in the spring before the fly season starts as this is when the nutrients in the slurry are of most benefit to crops.
- The slurry storage system will comply with SSAFO Regulations.
- The lagoon will be surrounded by protected fencing. This fencing will offer no accessible hand or foothold.
- Full elevations and site plans have been prepared and can be referenced as follows:-
 - ✓ Floor Plan 01
 - ✓ Elevation Sections 02
 - ✓ Block Plan 03
 - ✓ Location Plan 04

- The proposed slurry store will be access via the existing farm track. The applicant does not seek to increase the number of roadways and there will be no increase in traffic as a result of the development.
- Bearwardcote Farm is a working dairy farm, smells emitted from slurry tend to be highest during spreading on the fields, when material is disturbed. When considering the store, the proposed management intends to minimise surface disturbance in the store and thus allowing a crust to develop which assists in reducing odors and ammonia emissions.

3.0 CONCLUSION

- There is clear justification for the earth bank slurry store to serve the applicants existing livestock enterprise.
- The size and scale of the slurry store is commensurate with the applicants needs to support their agricultural enterprise.
- The siting and design of the store minimizes the visual and landscape impact. The large established hedgerow adjacent to the bridleway will mean visibility of the store from the bridleway will be minimal.
- In the current agricultural climate dairy farms are becoming increasingly rare, and it is considered In order to not only maintain but also support and enhance a sustainable rural farming community, Local Planning Authorities are encouraged to approve proposals such as this where the applicants have successfully balanced the needs of their enterprise whilst preserving and conserving the natural environment.
- This proposed development will ensure the ongoing viability of the existing farming enterprise.
- Based on a review of the relevant guidelines contained within the NPPF, then it is considered that the proposal complies with the various requirements.