Construct Digestate Storage Lagoon

Prior Approval

LAND SOUTH OF A303
BERWICK FARM
BERWICK ST. LEONARD
WILTSHIRE

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Location: Land to the South of A303, Berwick Farm, Wiltshire (GR 395434:135041)

Proposal: Construct Digestate Storage Lagoon

1.0 Introduction

1.1 This statement is prepared in support of a Prior Notification application for the construction of a digestate storage lagoon on agricultural land (GR 395434:135041) to the south of the A303, Berwick Farm, Wiltshire (part of Fonthill Farms overall holding).

1.2 Provisions under Schedule 2, Part 6 of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amened) allow for excavation and engineering operations, which are reasonably necessary for the purposes of agriculture within the unit.

1.3 The lagoon would be used for the storage of digestate derived from multiple local Anaerobic Digestion plants prior to its application on the farm holding.

2.0 Background

2.1 Fonthill Farms extends to a total of 3,400 ha consisting of 1,700 ha of arable production and 595 ha of permanent grassland. The arable cropping consists of Winter Wheat, Spring Barley, Winter Oilseed Rape, Winter Rye, Forage and Grain Maize.

2.2 Significant volumes of fertiliser are applied each year to maintain sustainable levels of crop production. Historically this has involved the importation and application of significant volumes of inorganic fertiliser.

2.3 The farm is now working hard to adopt a regenerative form of farming, removing cultivations from 90% of the arable operations and direct drilling large areas. Over the last four years the farm has transitioned from a fully synthetic nutrition system to a hybrid one, with an increasing use of digestate. During this time there has been a year-on-year increase in the use of digestate on the holding, coupled with an associated decrease in the use of artificial fertiliser.

2.4 The importation of digestate is currently undertaken on a ‘campaign’ basis. During these times there can be relatively intensive periods of vehicle movements to facilitate the importation and spreading of the digestate. The storage of a suitable volume of digestate would provide a wider application window throughout the year on crops, with the potential to also apply onto standing crops. This will greatly increase the flexibility and efficiency of farming operations, allowing further deployment across the business, while reducing the peak demand for haulage of the product.

2.5 The use of digestate is preferred to the use of more ‘conventional’ inorganic fertilisers for the following reasons:

- Less need for chemical fertilisers and therefore lower costs.
- More organic matter within soils which makes them easier to work.
- Improved soil structure, which makes it easier to drive vehicles over the land.
- Improved soil health, with more beneficial soil microorganisms, bacterial, fungi, and earthworms, and increased carbon storage.

- Increased organic matter, which makes soil less prone to water logging and run-off, and more resilient to drought.
- Organic matter helping to degrade pesticides, which reduces the risk of run-off and leaching.
- Improved water quality due to reduced run-off.

2.6 Digestate will be imported from multiple sources, including the Wyke Farms Anaerobic Digestion facility near Bruton. In addition to the benefits to farms managing their land through regenerative farming methods, the use of such digestate on land supports the local, sustainable management of waste.

3.0 Siting

3.1 The proposed lagoon will be sited on arable land on the northern edge of an existing field that abuts the A303 to the north, being approximately 2.6 km to the northeast of Fonthill Bishop. The site is located 25 metres to the south of the A303.

3.2 The nearest residential properties to the application site are No's 42 and 43 Great Bottom, located approximately 1.4 km to the northeast on the other side of the A303.

3.3 The proposed lagoon is not within Flood Zones 2 or 3 and is not shown as at risk from surface water flooding. The site is not within a Ground Water Source Protection Zone.

3.4 Bridleway STOC10 is located approximately 500 metres to the north of the site, with Restricted Byway FBIS3 located 750 metres to the northwest. Restricted Byway FBIS2 runs broadly east-west, approximately 650 metres to the south of the site.

3.5 The closest designated site of ecological interest is Stockton Wood and Down, a Site of Special Scientific Interest (SSSI). This SSSI consists of a number of individual compartments, the closest of which is located approximately 1.5km to the northeast of the proposed lagoon.

3.6 The site is situated within the Cranborne Chase and West Wiltshire Downs AONB.

4.0 Proposed Development

4.1 The proposed lagoon will be lined with a high-density impermeable membrane. It will measure 83 x 33 m and will have a capacity of 10,000m^3. The base of the lagoon will be between 1 -1.5 metres below existing ground level at its northern edge. Material from the void will be used in the formation of earth bunds around the perimeter of the lagoon. Owing to the fall in ground levels to the south, additional material (circa 25,000m^3) will be used in the formation of the permitter bunds. All imported material will be inert. The gradient of the internal and external slopes of the bund will be as shown on drawing no. FONTHILLBISHOP-0623-PROPOSED, dated June 2023.

4.2 A floating cover will be installed on the lagoon.

4.3 A stockproof post and wire fence 1.1 metres in height will be erected around the base of the permitter bund. This will be located around the toe of the bund where it joins existing ground level. All posts will be peeled softwood and pressure tanalised and installed at 2.7 metre intervals.

4.4 Access to the proposed lagoon will be via an existing hard surfaced track that extends from a minor road linking Fonthill Bishop to the A303. The track is approximately 1.6km

in length and runs parallel to the A303. The track is entirely within the ownership of the farm and currently used to access fields within the area.

4.5 Prior to construction, existing topsoil will be stripped and stored on site prior to its reuse on the outer slopes of the lagoon. Topsoil will be uniformly distributed to smooth flowing contours and lightly compacted to a minimum thickness of 25mm. Topsoil shall not be handled in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. The 25mm layer of topsoil will be prepared to a fine tilth and all stones over 50mm will be removed. A calcareous wildflower seed mix (80/20) of local provenance is proposed at a sowing rate of 5 grams/m2. Seed will be sown in the first autumn or spring following the completion of the lagoon construction.

5.0 Landscape and Visual Impact

5.1 The proposed lagoon will be located close to the northern boundary of the field, set against a backdrop of rising ground levels to the north and mature vegetation that runs east-west along the southern edge of the A303. A belt of mature vegetation also runs north-south down the eastern boundary of the field. Having regard to the presence of this mature screening vegetation, the proposed development will not be visible from views to the north and east. This includes any potential views from Bridleway STOC10 and Restricted Byway FBIS3. The site of the proposed lagoon and mature vegetation to the north and east is shown in photograph 1 below.



Photograph 1 – Looking east across the existing access road to the application site.

5.2 Transient views from the A303 are also particularly limited due to the mature screening vegetation and the fall in land levels on and around the application site to the south.

5.3 The landscape to the south of the lagoon is more expansive and open with potential views from the Restricted Byway FBIS2 located to the south.

5.4 The proposed development will be visible from a very short section of Restricted Byway FBIS2, where the Right of Way crosses a shallow ridge, approximately 900 metres to the southwest. From this viewpoint, the proposed development will be seen against the backdrop of mature vegetation and the rising land levels to the north of the site. The site will also be seen in the context of the A303 and associated infrastructure. It is noted that views of the application site from this location are at a significant distance as shown in photograph 2 below.



Photograph 2 – View northeast from Restricted Byway FBIS2

5.5 Further east, Restricted Byway FBIS2 is enclosed by banks, hedges and vegetation that provide very infrequent glimpses of the wider landscape. A typical view along the Right of Way to the south of the site is shown in photograph 3, below. Potential views of the application site from this location are from a significant distance and against the backdrop of rising ground levels and mature vegetation.

5.6 The outer slopes of the proposed lagoon will be of a gentle gradient that will be blended into the surrounding ground level at its base. The outer slopes will be seeded with a low maintenance native grass and wildflower mix that will assist in integrating the proposal into the surrounding landscape.

5.7 Longer distance views of the proposed development will be limited. However, where the proposed development can be seen, it will be viewed in the context of the A303

and associated infrastructure, including barriers, railings, stone gabions that are visible to the west of the site.



Photograph 3 – View looking east along Restricted Byway FBIS2

5.8 To conclude the potential impacts on visual amenity and landscape character, the proposed lagoon will only be visible from a limited number of isolated points along Restricted Byway FBIS 3. These views will be transient in nature and at a significant distance from the proposed development. In addition, the proposed lagoon will be seen against the backdrop of mature vegetation and in the context of the A303 and associated infrastructure (barriers, railings, stone gabions) that are visible immediately to the west of the site. The outer vegetated slopes of the proposed lagoon will be of a gentle gradient and blended into the surrounding ground level at its base.

6.0 Biodiversity

6.1 The proposed lagoon will be sited on arable farmland. The land is intensively managed and disturbed through cultivations and the application of fertiliser. For these reasons there are no ecological interests on the application site that have the potential to be adversely affected by the proposed development.

6.2 A SCAIL (Simple Calculation of Atmospheric Impact Limits) assessment has been undertaken. The output file from this screening tool has been included as part of this application.

7.0 Conclusion

7.1 The proposal is consistent with the provisions of Schedule 2, Part 6, Class A of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amened). Prior Approval is therefore sought for the siting of the excavation as stipulated by Condition A.2 (2)(d)(i) of the Order.