Construct Digestate Storage Lagoon

PLANNING STATEMENT/DESIGN AND ACCESS STATEMENT

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

1.3 This planning application has been submitted following the determination of Prior Approval Application PL/2023/06523. It was determined that the Prior Approval of the Authority was required and the application was refused. The reasons for refusal noted that the proposed development, by virtue of its siting design, size and appearance had the potential to significantly impact the character, setting and visual amenities of the area, which is situated in an Area of Outstanding Natural Beauty. It was noted that the proposed development also had the potential to adversely affect the free flow of traffic; and the use and users of the adjacent A303 trunk road.

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 as a deployable waste product 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.

2.7 The provision of adequate storage for digestate is fundamental to the effective and efficient operation and management of the farm.

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-1123-PROPOSED, dated November 2023.

4.2 A floating cover will be installed on the lagoon.

4.3 A stockproof post and wire fence 1.3 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 A compacted stone access track, 40 metres in length, will connect the existing hard surfaced track to the lagoon. Vehicles will reverse along this section of track into order to deposit or collect the digestate. From this point, the digestate will be transferred via a pipe that extends through the wall the lagoon. Delivery and collection vehicles will not use the integrated ramp built into the western side of the lagoon. This access ramp is solely to allow access to the top of the lagoon for occasional maintenance purposes.

4.6 Prior to construction, existing topsoil will be stripped and stored on site before 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.

5.0 Planning Policy

The Development Plan includes the Wiltshire Core Strategy (2015). The following policies are considered particularly relevant to the development proposals:

Core Policy 50 (Biodiversity and Geodiversity)

In respect of biodiversity enhancement, policy 50 states that *"All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services. Such enhancement measures will contribute to the objectives and targets of the Biodiversity Action Plan (BAP) or River Basin/ Catchment Management Plan, particularly through landscape scale projects, and be relevant to the local landscape character."*

Core Policy 51 (Landscape)

Core policy 51 states *"Development should protect, conserve and where possible enhance landscape character and must not have a harmful impact upon landscape character, while any negative impacts must be mitigated as far as possible through sensitive design and landscape measures. Proposals should be informed by and sympathetic to the distinctive character areas identified in the relevant Landscape*

Character Assessment(s) and any other relevant assessments and studies. In particular, proposals will need to demonstrate that the following aspects of landscape character have been conserved and where possible enhanced through sensitive design, landscape mitigation and enhancement measures:

i. The locally distinctive pattern and species composition of natural features such as trees, hedgerows, woodland, fi eld boundaries, watercourses and waterbodies.
ii. The locally distinctive character of settlements and their landscape settings.
iii. The separate identity of settlements and the transition between man-made and natural landscapes at the urban fringe.
iv. Visually sensitive skylines, soils, geological and topographical features.
v. Landscape features of cultural, historic and heritage value.
vi. Important views and visual amenity.
vii. Tranquillity and the need to protect against intrusion from light pollution, noise, and motion.
viii. Landscape functions including places to live, work, relax and recreate.
ix. Special qualities of Areas of Outstanding Natural Beauty (AONBs) and the New Forest National Park, where great weight will be afforded to conserving and enhancing landscapes and scenic beauty.

Proposals for development within or affecting the Areas of Outstanding Natural Beauty (AONBs), New Forest National Park (NFNP) or Stonehenge and Avebury World Heritage Site (WHS) shall demonstrate that they have taken account of the objectives, policies and actions set out in the relevant Management Plans for these areas. Proposals for development outside of an AONB that is sufficiently prominent (in terms of its siting or scale) to have an impact on the area's special qualities (as set out in the relevant management plan), must also demonstrate that it would not adversely affect its setting."

5.0 Landscape and Visual Impact

5.1 Following the determination of Prior Approval Application PL/2023/0652, consideration was given to the alternative siting of the proposed lagoon on the farm holding, as well as a review of the previous proposals by a Landscape Architect.

5.2 A review of other potential sites within farm holding found no other locations that would be more suitable, both from a visual amenity/landscape character impact and operational perspective.

5.3 A Landscape Appraisal of the previous proposal (submitted under PL/2023/0652) was undertaken. This appraisal is submitted as part of this application (see attached Landscape Appraisal dated 27th September 2023). The appraisal identified the key receptors, their sensitivities and likely impact of the scheme from these locations. The appraisal made a number of recommendations to appropriately mitigate the proposal. These measures included the relocation of the lagoon further to the east and the provision of a soft landscaping scheme to better integrate and assimilate the proposal into the existing landscape setting.

5.4 As per the recommendations of the Landscape Appraisal, the proposed lagoon has been relocated 40 metres to the east of its previous location. This will lessen the impacts of potential views from the A303. In addition, a comprehensive soft

landscaping scheme has been developed to further mitigate the impacts of the proposed digestate lagoon. (see drawing number TH/FF/01A dated 27th November 2023).

5.5 The Landscape Appraisal concludes that with the suggested mitigation measures in place, the proposal will be satisfactorily integrated into its wooded backdrop setting and seen in association in its field corner context. In addition, it is stated that the above mitigation proposals will help to conserve and enhance landscape character and help in maintaining the 'strong' strength of character as defined in the AONB Landscape Character Assessment.

5.6 It is considered that with the inclusion of the mitigation measures, as detailed within the Landscape Appraisal and Soft Landscaping Scheme (drawing no. TH/FF/01A, dated 27th November 2023), the proposed development would not be visually intrusive and would conserve and enhance the landscape character of the area. The proposal is therefore seen to accord with Policy 51 of the Wiltshire Core Strategy, 2015.

6.0 Highway Impact

6.1 Digestate will be delivered to the lagoon via road tanker. Deliveries will enter the site via the existing hard surfaced track that extends from the minor road linking Fonthill Bishop to the A303. No changes or alterations will be required at the site entrance. When adjacent to the proposed lagoon, tankers will reverse up the newly constructed compacted stone track, prior to digestate being pumped into the lagoon through a pipe.

6.2 Digestate will be collected from the lagoon by tractor towed tanker. The digestate will then be transported to where it is required on the farm holding. The volume and location of digestate spreading will vary significantly throughout the year and between years; being dependent on a number of factors including crop type, soil type, ground conditions and time of year.

6.3 All digestate delivered to the proposed lagoon will be used on the farm. No digestate will be taken off the holding for application.

6.4 All vehicles delivering and collecting digestate will use the access specified within this application. It is noted that an access exists off the A303 directly adjacent to the site. It is confirmed that this access will not be used in connection with the construction and operation of the proposed lagoon.

6.5 The proposed lagoon will result in a reduction in vehicle movements onto the farm and utilising the A303, based on current practice. At present 1562 tractor towed tanker movements per annum are required to collect digestate from source and deliver to the farm. 70% percent of these movements use the A303. The proposal would involve the use of road tankers to deliver digestate to the proposed lagoon. These can transport larger volumes of digestate and would therefore result in a reduction in vehicle movements importing digestate. It is anticipated that vehicle movements associated with the delivery of digestate would fall to around 862 movements per annum. Based on deliveries 5 days per week, this would equate to an average of around 3 tanker deliveries per day. As specified above, digestate application onto the holding is not consistent throughout the year. Tanker deliveries

to the site will therefore fluctuate to reflect this. A further reduction of movements will occur as result of a reduction in artificial fertiliser deliveries. It is noted that this would not be significant and would equate to approximately 26 lorry movements per annum.

6.6 In addition to the above, there will be a reduction of 243 movements per annum on the local road network associated with the spreading of digestate. This reduction is associated with that part of the land holding that is directly accessible from the proposed lagoon without requiring road transport.

6.7 It is noted that digestate from anaerobic digestion plants has to be transported from source and utilised in some form. In addition, all internal vehicular movements on the farm holding, associated with the application of fertiliser (both organic and inorganic), are already taking place. These include movements across the A303 to the land holding north of the A303. It is considered that the provision of the lagoon would represent a continuation of these existing agricultural practises but with the reductions in vehicle movements detailed above.

6.8 The farm is committed to the use of digestate and its associated benefits. Without the proposed lagoon, digestate will continue to be collected by tractor towed tanker along sections of the A303. Whilst road legal, there are clear benefits both in terms of highway safety and a reduction in vehicular movements, for such deliveries to be undertaken by road tanker.

6.9 The proposal would result in a decrease of traffic movements associated with the importation of digestate onto the farm and subsequent dispersal of digestate throughout the holding. For these reasons and having regard to the nature of vehicles importing the digestate, it is considered that proposal will not adversely impact on highway safety or disrupt the free flow of traffic on the A303.

7.0 Rights of Way

7.1 A section of the existing access track is a Restricted Byway (FBIS2). The shared section of track extends eastwards for 200 metres from the minor road linking Fonthill Bishop to the A303.

7.2 The use of the existing access track by vehicles associated with the proposed development has the potential to impact on the tranquillity and general experience of Rights of Way users.

7.3 It is noted that the shared section of access track is relatively short. In addition, visibility along this section of access track is good with adequate places for vehicles and Rights Way users to pass one another. To mitigate and reduce any potential conflict with Rights of Way users, suitably worded warning signage will be erected at key locations to inform users of potential farm traffic.

7.4 Having regard to potential impacts on the tranquillity and experience of Rights of Way users, this section of Restricted Byway runs parallel and is within very close proximity to the A303. As the Right of Way terminates at the junction with the public highway, any users would be joining, or would have just left a public highway. For these reasons it is considered that there would be no detrimental impact on Rights of Way users both in terms of tranquillity and safety.

8.0 Biodiversity

8.1 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.

8.2 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.

8.3 The proposal includes the provision of woodland/scrub planting and the seeding of the lagoon slopes with a wildflower and grass seed mix suitable for calcareous soils. It is considered that this planting complements and reinforces those habitats found within the surrounding area and will enhance the biodiversity on the site. The proposal is seen to accord with Policy 50 of the Wiltshire Core Strategy, 2015.

9.0 Conclusion

9.1 The proposed lagoon is a fundamental to the effective operation of the agricultural holding. The proposal brings numerous benefits, both in terms of farm efficiency and environmentally through a reduction in the use of inorganic fertilisers and improvements to soil condition and structure. The proposed lagoon will be integrated into the existing landscape through the shallow sloping exterior bunds and the provision of woodland planting and wildflower/grassland seeding. These features, together with the re-siting of the lagoon, will ensure that the Landscape Character of the AONB is not adversely affected. The proposal will result in a reduction of traffic generation levels and is ideally sited on the holding to minimise transport disruption to the A303 and local road network. The proposal will not adversely impact on Rights of Way users and will result in biodiversity enhancements to the site. The proposal is seen to accord with Policy 50 and 51 of the Wiltshire Core Strategy, 2015.