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Clymping Mill

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Biodigester Impact Statement

Clymping Mill

Climping Street

Climping

BN17 5RN

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The Application

1.1. The proposal is for the installation of a biodigester system at Clymping Mill on Climping Street. A system is proposed to collect and process waste water created on site and safely discharge this filtered water into a field drain.

1.2. The wider site has undergone a series of alterations in order to enhance the various buildings and landscaping contained within its curtilage. This statement focuses solely on the biodigester system and associated drainage.

Existing Site

2.1. The Clymping Mill site covers approximately 1.6ha of rural land within close proximity to the coast to the South, a golf course to the East and agricultural land to the West and North. The site is accessed via a private track off Climping Street, which leads to a private driveway.

2.2. The wider application site contains a series of buildings, namely the Grade II Listed Clymping Mill House and smaller ancillary buildings within its curtilage, Mill Cottage and Thatch Cottage. There are additional non-Listed ancillary buildings that resemble portacabin type structures.

Planning History

3.1. There is an extensive planning history for the site which covers various areas such as the individual Listed buildings and other landscaping works on the site. There are however no directly relevant applications in relation to underground drainage.

Biodigester System

4.1. The existing foul drainage system is to be completely removed including all drains, manholes, outlets. A new packaged treatment system is proposed to collect and filter waste water that is produced in the various buildings within the site and safely discharge them into a drainage field.

The system is designed to be a low impact environmentally friendly method of dealing with the waste water produced on site.

4.2. The Biorock system comprises of two tanks that are located below ground away from the existing buildings. There is a primary settlement tank, which collects the waste water, and a secondary treatment tank that processes and subsequently discharges the effluent. This effluent is then pumped out into a drainage field located along the boundary of the site.

4.3. The land drain itself is approximately 83M in length and runs along the western boundary.

4.4. The Biorock system has been sized for the expected sewage from the three properties on site. Using the daily discharge calculator for domestic properties on the gov.uk website, it has been established that there is a discharge of 2.7m³ expected per day. This is based on 3 properties and a total of 13 bedrooms. This amount of discharge is below the Environmental Agency's threshold for a permit, which is 5m³ per day.

Site of Specific Scientific Interest (SSSI)

5.1. The site is not within but is very near to a SSSI for Climping Beach (OLD1004174).

5.2. The notification reason for the SSSI is as below:

The site is a stretch of coast with a vegetated shingle beach, behind which is a sand dune system. The intertidal zone supports important populations of wintering birds and the numbers of wintering sanderling, in particular, are of European significance.

*Vegetated shingle beaches are a nationally uncommon habitat. The beach at Climping is broad in the west but narrows to the east. Plant communities are mainly restricted to sheltered areas behind the main shingle bank and include yellow horned poppy *Gaucium flavum*, sea dale *Crambe maritima*, sea beet *Beta vulgaris*, curled dock *Rumex crispus* and sea holly*

*Eryngium maritimum. Scrub of tamarisk *Tamarix gallica* and hawthorn *Crataegus monogyna* has developed in a few places behind the shingle.*

*Sand dunes are fragile systems, susceptible to erosion and often unstable. Stabilised parts of these dunes are dominated by marram-grass *Ammophila arenaria*. Other plants which are present include dune fescue grass *Vulpia membranacea*, red fescue grass *Festuca rubra*, sand catchfly *Silene conica*, sand sedge *Carex arenaria*, viper's bugloss *Echium vulgare* and a locally uncommon plant, Nottingham catchfly *Silene nutans*.*

The intertidal zone consists of soft muds and sands which support large populations of marine invertebrates. The invertebrates are an important food source for wintering birds. In particular up to 300 sanderling have been recorded from this site in winter; a figure which represents 1% of the West European population of this bird which breeds in the high Arctic but flies south to winter on sandy coasts and estuaries. Other wintering birds include grey plover and oystercatcher.

5.3. As can be seen from the above notification, the SSSI refers predominantly to the sand dunes and the habitat that they create both in terms of vegetation and wildlife.

5.4. In order to assess the impact on the SSSI, it needs to be determined whether there is a relationship between the activity and the SSSI. For there to be a risk, there must be a 'hazard' called the source, a 'receptor' (SSSI) and a pathway between the source and receptor.

5.5. It can be argued that there is a theoretical pathway between the source and receptor by way of the effluent potentially making its way to the SSSI through groundwater movement.

5.6. The Biorock system has been tested against EN-12566-3 which sets the levels of effluent quality. The below results indicate that the effluent does not pose a contamination risk as it is well below the Environmental Agency maximum levels of 20Mg/L BOD, 30Mg/L SS.

5.7. Due to the quality of the effluent being well below the EA and EN 1566-3 requirements it is considered that there is no 'source' for there to be a link to the receptor. As such it is considered that the SSSI will not be affected by the discharged effluent.

5.8. Under the SSSI, there are 26 operations listed that are considered likely to damage the special interest. The installation of below ground drainage and packaged waste treatment plant is not listed as an operation that would harm the SSSI.

Source Protection Zone (SPZ)

6.1. A Source Protection Zone (SPZ) identifies sources of groundwater that contribute to drinking water supply. They are defined into three zones, inner SPZ1, outer SPZ2 and total catchment SPZ3. These zones are identified to indicate the level of risk to the source from contamination. The sources could be contaminated from activity such as storing pollutants underground, or soakaways from septic tanks in the ground. Should there be a pollutant activity close to the source, there is potential for contamination.

6.2. The below image indicates data from Defra that identifies any SPZ's within the locality of the site. It is clear to see that the SPZ's are located a significant distance away from the site, and as such the proposed drainage works do not pose a contamination threat.

6.3. In addition to this, as highlighted earlier the treated effluent is to a level much below the EA requirements and so would not contaminate the SPZ.