Planning Application for the installation of an Energy Storage System at land to the south of Peterstow Gas Compressor Station, Hentland, Herefordshire

Design and Access Statement including Statement of Community Involvement

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1 Introduction

This Design and Access Statement (DAS) has been prepared to accompany a planning application for an Energy Storage System at land to the south of Peterstow Gas Compressor Station, Hentland, Herefordshire. It is a statutory requirement that "major" planning applications submitted in England are accompanied by a Design and Access Statement (DAS). The Planning Practice Guidance[1] advises that a DAS must:

a) explain the design principles and concepts that have been applied to the proposed development; and
b) demonstrate the steps taken to appraise the context of the proposed development, and how the design of the development takes that context into account.

In addition, a DAS:

- Should be proportionate to the complexity of the application but not be long;
- Should be tailored according to the particular characteristics of the application site and its wider setting;
- Explain the applicant's approach to access and how relevant Local Plan policies have been taken into account;
- Detail consultation and how this has informed the proposal.

This DAS has been prepared in accordance with the Planning Practice Guidance[1] and therefore covers the following matters:

- Description of the site and context
- Principles of energy storage systems
- Design
- Consultation
- Access and movement

[1] https://www.gov.uk/guidance/making-an-application

2 Description of the site and context

2.1 Site location

The application site (the "Site") is located in open countryside, on arable farmland 1.1km to the south-east of the settlement of St Owen's Cross and approximately 5km to the west of the market town of Ross-on-Wye. The site lies within the administrative area of Herefordshire Council (the "LPA").

The site comprises a parcel of agricultural land measuring approximately 1.92 hectares in area.

To the immediate north of the site is the Peterstow Gas Compressor Station (GSC), operated by the National Grid. The GSC comprises two compounds, one immediately to the north of the site and one to the northwest of the site.

A high voltage electricity line also crosses the Site with a prominent transmission tower located within the south-western corner of the Site.

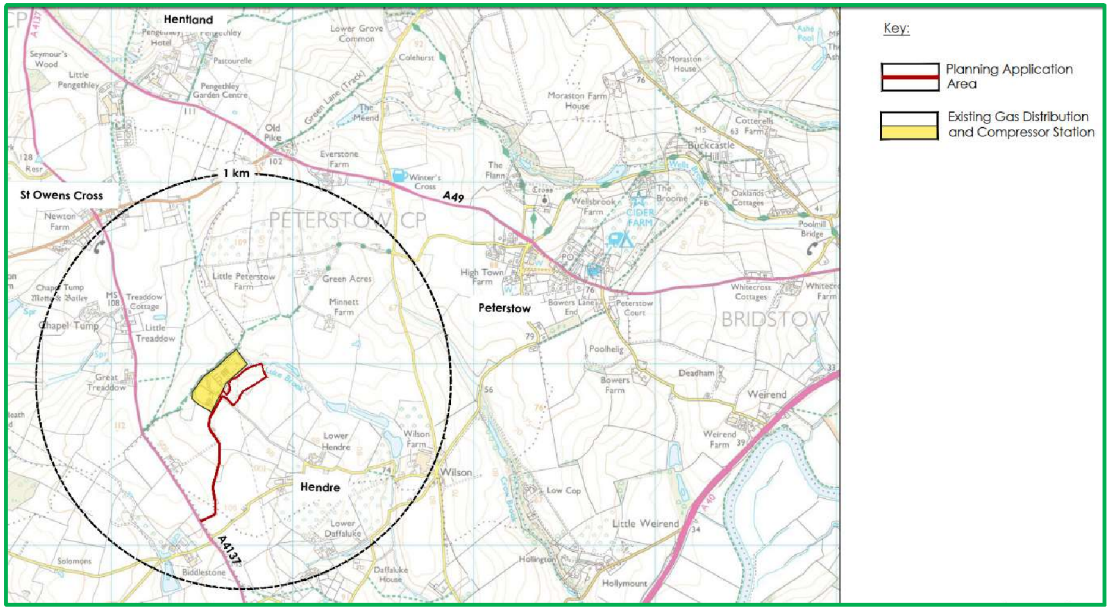


Figure 1 Site Location Plan

2.2 Site analysis

Access: The Site is accessed from a private single lane track which connects to the A4137 to the south-west. There are several Public Rights of Way (PROWs) in the local area, including one adjacent to the southern site boundary (ref. P08) this and the other PROW are shown in the map below.

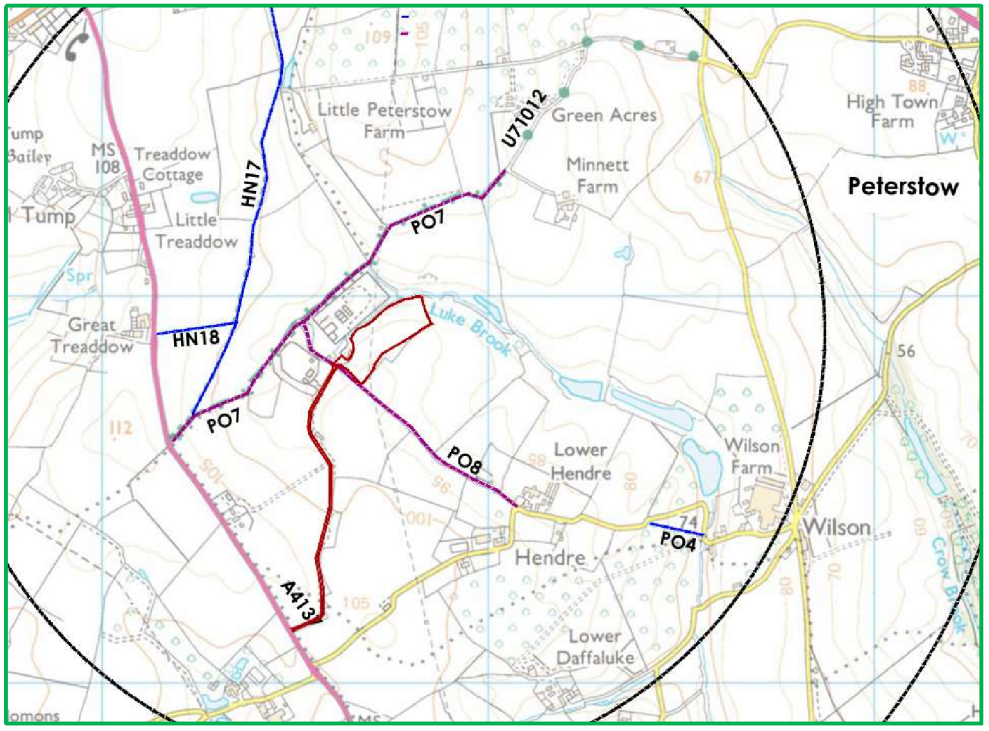


Figure 2: PROW Map

Ecology: There are no local, national or international designations within the Site or immediately adjacent to it. Luke Brook is a tributary of the River Wye. The River Wye valley is a Special Area of Conservation, this is approximately 2.7km to the south-east. [redacted]

Flood zone: The site lies within Flood Zone 1, which is the zone with the lowest risk of flooding as defined by the Environment Agency.

Heritage: There are no designated heritage assets within the Site or immediately adjacent to the Site.

Archaeology: The overall potential for encountering archaeological remains at the site is considered to be very low.

Landscape and land use: The application site comprises a small field, The total site area (including the 780m long access track from the A4137 to the south-west) is approximately 2.7 hectares. The site does not lie within a nationally or locally designated landscape. The current use of the site is agricultural same as most of the immediate fields. Although there is the Peterstow Gas Compressor Station (GSC), operated by the National Grid adjacent to the site.

3 Principles of energy storage

Energy storage is a key component of supporting a reliable source of electricity to homes and businesses as the UK moves towards a Zero Carbon future. There will be an increased reliance upon renewable electricity generation, such as solar and wind farms which generate electricity intermittently and often not at times of peak demand. Energy storage is required to deal with the peaks and troughs of energy supply and demand.

Energy Storage Systems (ESSs) are one type of energy storage. An ESS needs to be located in relatively close proximity to a connection point to the grid network. They import electricity from the National Grid at times of low demand. The electricity will then be stored within the modules. The ESS is operated remotely, and real-time monitoring of the Grid identifies when demand is high and exports the electricity back into the Grid. This helping ensure a reliable flow of electricity, complementing more variable supplies of renewable energy.

Figure 3 Examples of Renewable Energy

4 Design and design evolution

The proposed ESS will comprise thirteen pairs 3GW capacity storage units, each with a transformer on a concrete plinth, and these set out in two rows, along with transformers and a customer substation. The appearance of the ESS is functional and the bulk of the proposed structures is minimal. A photograph of a similar system is shown below.

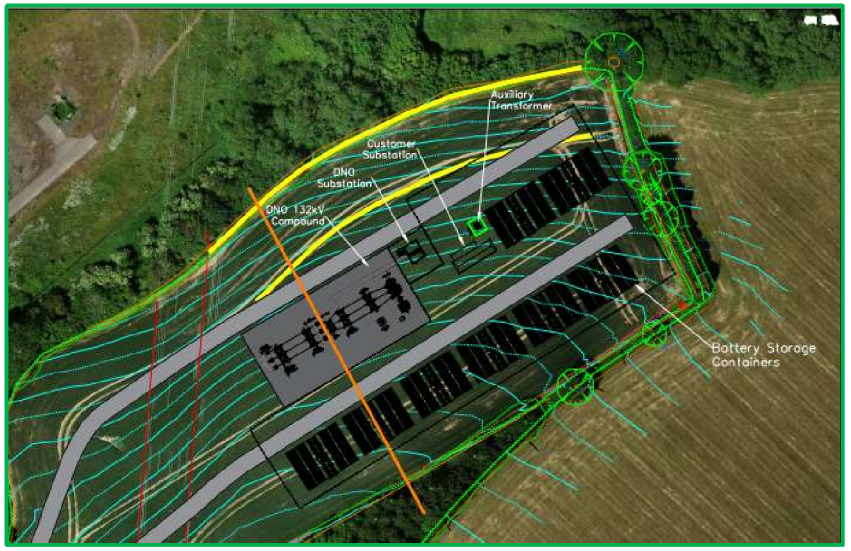
Figure 4 Example of ESS

The proposed ESS will occupy a modest proportion of the site, enabling a comprehensive scheme of new planting.

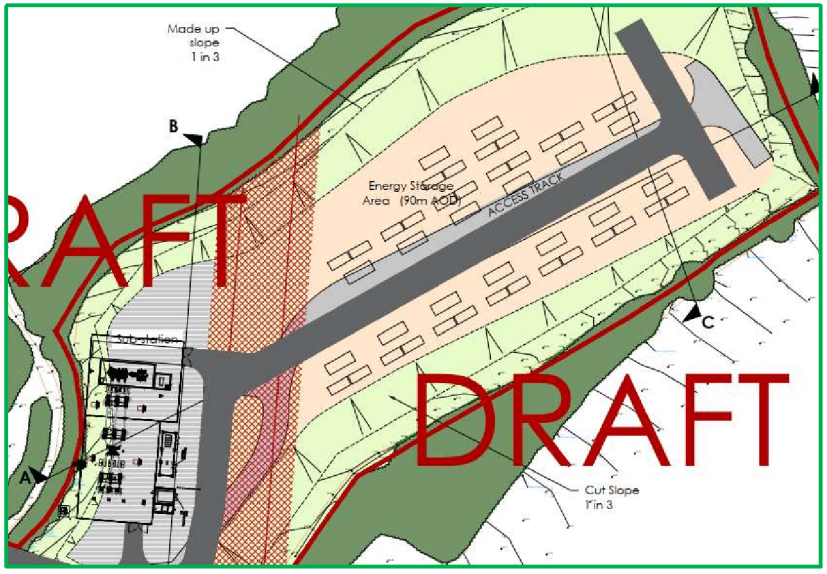
The area immediately surrounding the site will be sown with a wildflower mix. There will also be scrub/woodland planting areas within the site, at the north and northeast of the ESS.

4.1 Design Evolution

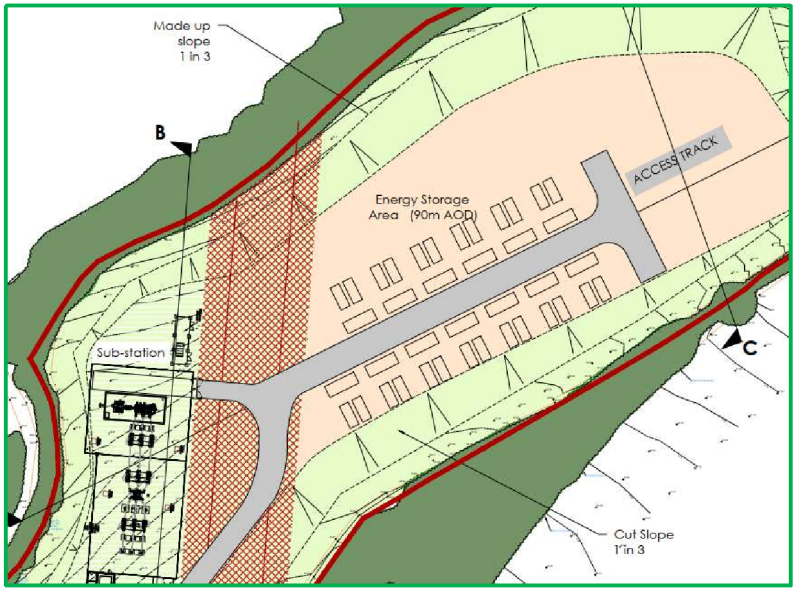
The design as shown below has evolved from the pre-app stage though the public consultation & technical feedback to get to the design now proposed.

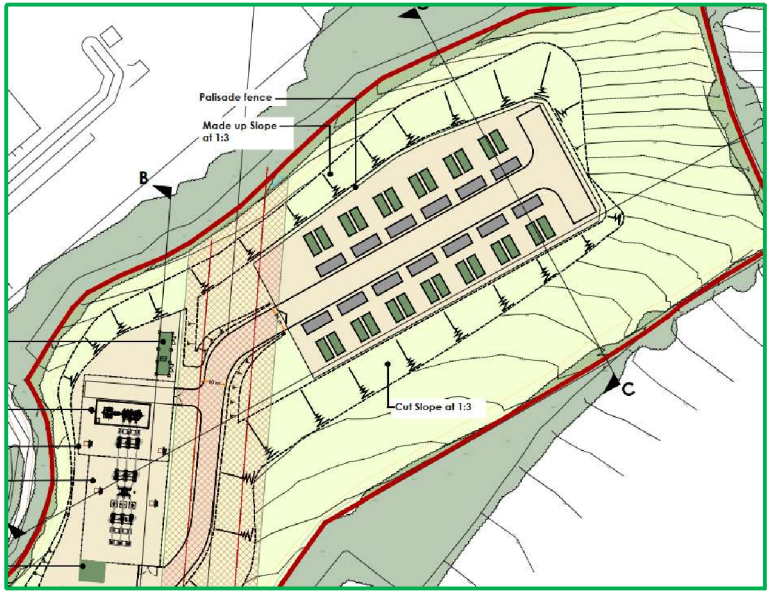


Stage 1: The top left image is the layout that was considered at the pre-application stage. The development was split over two levels with a row of energy storage units on the top section to south and then the substation and more energy storage units to the north.



Stage 2: An alternative layout was considered with a similar number of energy storage units as the pre-application but with one level across the whole Site with 1:3 cut and fill slopes formed to the north and south. The Sub-station was moved to the west of the high voltage cable.





Stage 3: The layout was amended to reduce the number of energy storage units due to technological advances. The storage units were pulled away from the eastern edge which is the most visible in the landscape.

Stage 4: Upon feedback from the community, the units and the banks were pulled significantly away from the eastern boundary to avoid visibility from outside the site, as this part is the highest part of the Site. Planting has been increased to aid with bio-diversity and additional planting to meet the ward councillors comments.

4.2 Final layout

The final layout is shown below. This layout will deliver 78.69 Biodiversity Net Gain

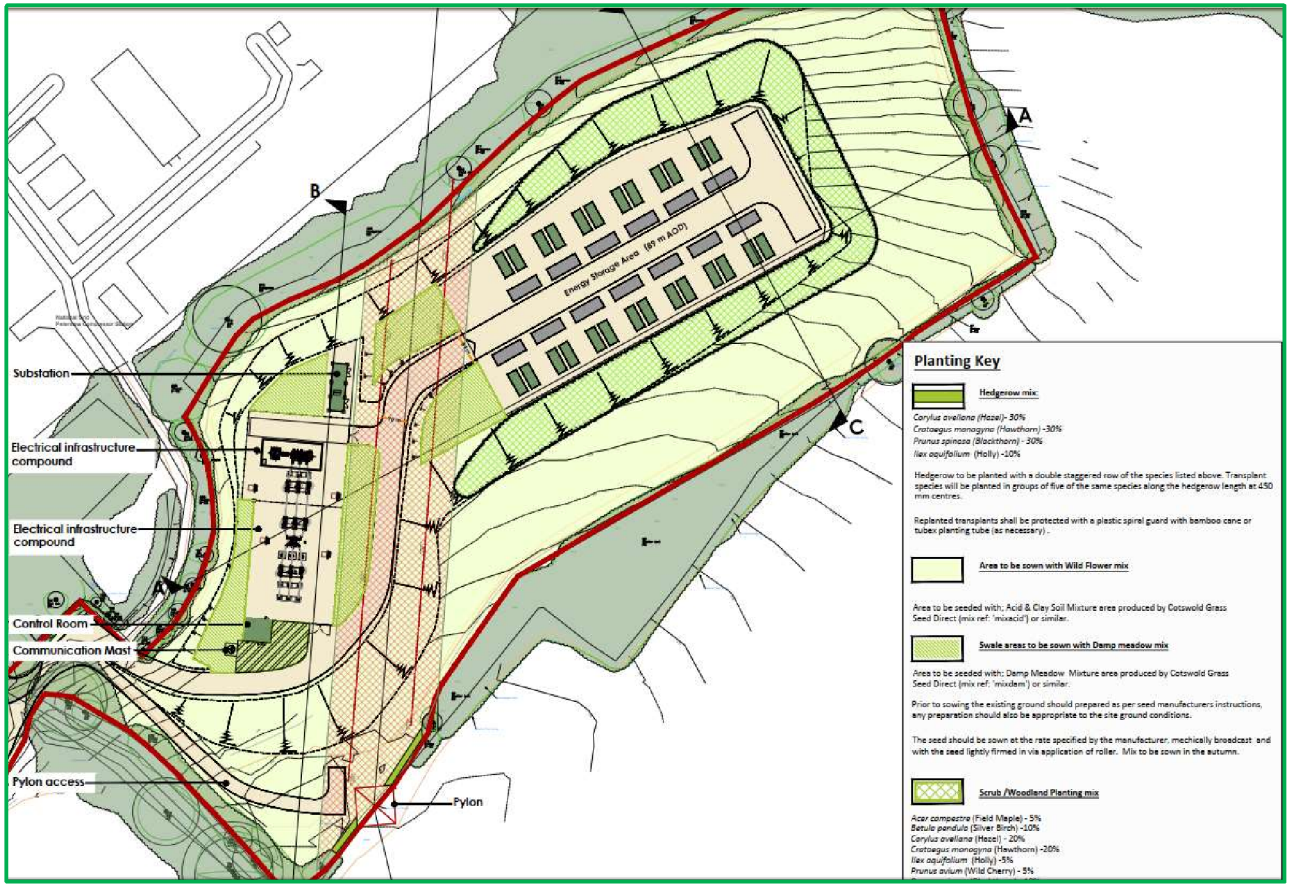


Figure 5 Final Layout

5 Statement of Community Involvement

Due the modest scale of the proposed ESS and relatively remote location of the site, a public exhibition was not considered to be proportionate. However, following good practice in planning, targeted letters were sent to 10 addresses and a further 46 leaflets (Appendix A) were sent to addresses within 1km of the site.

Letters were sent to Ballingham, Bolstone and Hentland Group Parish Council, and Peterstow Parish Council on 9 February 2023 providing information on the project and offering a meeting. Letters were also sent and telephone calls were made to Ward Councillor and adjoining Ward Councillor to brief them on the project

Following the distribution of the letters feedback was received from four local residents. Two of these supported the project with one seeking to offer accommodation for the construction workers and another broadly interested in what was happening. The Applicant meet with local residents on Site on 15 March 2023. Key comments received from the meetings, parish council and residents are summarised below including how the application has changed due to these comments.

Comment	**Response**
Visual impact on rural area	The scheme has taken into account this comment and moved all development away from the eastern boundary. Additional planting has been added to screen the development.
Want to ensure development is not on the highest part of the site	See the previous comment.
Development is too far to the east of the site which opens views from residential properties	See the previous comment.
Construction traffic must not turn down our lanes as has happened on other projects	Within the Construction Management Document produced by the Highway Consultant Rappor a sign has been added to make sure no construction vehicles turn down the road before the site.
Loss of biodiversity	This has been fully considered and the application has been accompanied by a Preliminary Ecology Assessment. Mitigation has been recommended.

Comment	Response
	Furthermore, additional planting has been added to screen the development. The development scores a Biodiversity Net Gain of 78.69%.
Potential noise impacts	A technical report by an acoustic consultant has fully assessed the impact of the development.

Table 1 Summary of responses received

6 Access

It is proposed that the Site will be accessed from the existing private access track which currently serves the Peterstow GCS and agricultural land. The track measures approximately 750m in length from its junction with the A4137. The majority of vehicular movements will occur during the construction and decommissioning phases and these can be adequately accommodated for within the local highway network, and managed through a Construction Transport Management Plan (and decommissioning plan) if considered necessary.

A consideration of all necessary HGV and specialist vehicles' abilities to access the proposed development site has already occurred, and swept path analysis demonstrating these has been produced. Visibility splays have been shown to accord with National Standards as shown within Figure 6 on the right.

During the operational phase, there will be limited vehicle movements to and from the site associated with on-site management and maintenance.

The site will not be open to the public and the proposed development will not impinge upon the ability of the public to use the local PRoW network.

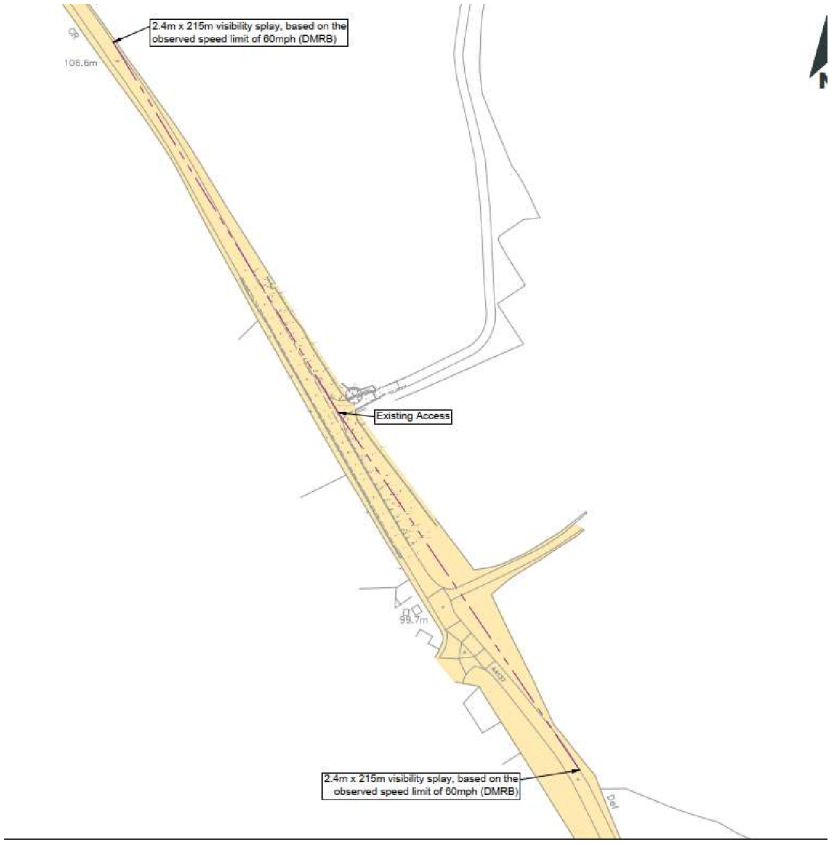


Figure 6 Visibility Splays

7 Conclusion

This DAS has been prepared to support a full planning application for the installation of an Energy Storage System (ESS). The proposed development will support the transition to a net zero future by providing additional resilience to the grid.

It has been demonstrated that the site is not constrained by any statutory designations. It has suitable access and grid connection.

The proposed development has been designed in response to the site context and constraints, with the input of specialists in relation to biodiversity, landscape, heritage, hydrology, engineering and noise. Consideration has also been given to highway safety at both the construction and operational phases.

The proposed layout plans show the respectful offset from boundary features, such as adjacent hedgerows, trees and the Brook. Large ecological enhancements will be achieved through additional planting and the creation of new habitats, which will add significant habitat diversity and ecological value above that existing.

It has been demonstrated through this DAS and the specialist reports and planning statement accompanying this application that the proposed development would be environmentally sustainable and in accordance with national and local planning policies and guidance. Because of the environmental gains, the proposal would also accord with the neighbourhood plan for Peterstow. Therefore, it is considered that the application should receive the support of the LPA and planning permission be granted for the proposed development.

Planning

Land scape

Architecture

Hydrology

Ecology