

Ecosystems Services Statement, Biodiversity Net Gain Plan and Soft Landscaping Plan

in respect of the equestrian arena to be constructed at:

**Orchard Corner
South Hay
Binsted
GU35 9NS**

Ref. planning application SDNP/20/04743/FUL

T J Plumbley
29 March 2021

1.0) Ecosystems Services Statement

Ecosystem Services are defined as the benefits that people and society get from the natural environment. To this end, conservation and development projects should go hand-in-hand.

The planning permission granted for an equestrian arena at Orchard Corner, South Hay, Binsted, ref. planning application reference SDNP/20/04743/FUL, was given with conditions to provide a net gain in biodiversity, generally in accordance with actions outlined in the email dated 08 Jan 20 which is attached (attachment 1) to this plan. The commitments made therein are developed as below to provide enhancement to the local wildlife habitat for the benefit of the locality and its residents.

In accordance with South Downs National Park Authority, the possible actions applicable to the rural site and nature of the South Hay area are as listed below:

- Create new habitats on site, including ponds and bog gardens to deal with heavy rain fall;
- Use permeable surfacing
- Increase areas of planting to include a diverse mixture of native species
- Create new habitats including ponds, bog gardens, areas with log piles and long grass;
- Create new wildlife friendly linear features (e.g. native, mixed-species hedgerows) particularly along the edges of roads, to improve air quality
- Select plants to provide a variety of food for wildlife e.g. nectar rich/berries/grasses;
- Protect and retain existing mature trees
- Safeguard wildlife habitats and protected species
- Minimise areas of heavily managed amenity grass considering using wildflower and meadow mixes on less intensively used areas
- Ensure that linear features on site such as watercourses, hedgerows, boundary features or other planned landscaping is friendly to wildlife

The provisions specified in the Biodiversity Net Gain Plan outlined below comply both with the above SDNP proposed possible actions listed above and are in accordance with actions defined in aforesaid required conditions of the planning permission.

However, it should be noted that, coincident with the actions specified in the Biodiversity Plan, there is ongoing work to restore the ponds that are in an area bounded by the lane from the B3004 road to South Hay and the eastern end of The Straits. This scheme is not part of any obligations and is not included in the biodiversity plan, but will add significantly to Ecosystems Services as the area, viewable from the lanes by passers-by, will enhance the local environment for the benefit of local people. Hence the obligations under the Biodiversity Plan below are centred on this area rather than focusing on the stable block area. This is more clearly shown in the Soft Landscaping Plan.

2.0) Biodiversity Net Gain Plan

2.1) Planting of native trees and shrubs.

Some native hedging will be planted particularly along the north side of the pond area.

However, it is noted that to increase the Ecosystems Services, such hedging should not totally obscure views of the pond area from the lanes and should provide

“glimpses” of the area to passers-by.

Some existing hazel plants, which are not to be removed, will also provide some established “hedging”. As such, the length of the native hedging to fulfil the requirements is not fully determined but under the subject plan the proposal is to plant a minimum of say 80 metres, maybe with a few gaps for the reasons noted above.

This proposed native hedging would be a Blackthorn based mix which is often used for field and land boundaries. The established hedging to the west of the pond area has some blackthorn in it, hence the consideration that the soil conditions are suitable for this mix. This hedging provides a diverse habitat for wildlife, preserving the heritage of the British countryside. The proposed mix is comprised of 50% Blackthorn with 10% each of Bird Cherry, Alder or Field Maple dependent on seasonal availability, Dog Rose, Hazel and 10% Hawthorn. These species have been selected to provide a long period of interest for humans (in flower, berries, leaf colour, leaf shape) to improve the Ecosystems Services as well as providing varying wildlife with foods and shelter for biodiversity gain.

Bare root plants will be used with a planting distance of 3 plants per metre for the single row hedge.

2.2) Biological enhancements in the pond area.

As discussed under the Ecosystem Services section (para 1.0) above, work is currently ongoing to clear the overgrowth and undergrowth in the pond area which is a substantial amount of work. The intention, in the fullness of time, is to fully restore the ponds. This requires the removal of the sediment from all 3 ponds areas, a major repair to the retaining bank and the building of a suitable spillway. This is an expensive job requiring a specialist contractor. As such this is not considered within this particular biodiversity gain plan as a commitment to complete this work by a scheduled date is not warranted by the scale of the equestrian arena development. Hence, while the clearance work is proceeding towards the ultimate goal of complete restoration of the pond area, no consideration of this work is included in the biodiversity gain calculation.

2.3) Installation of bat boxes

It is proposed to install three boxes facing different directions to provide a range of temperature conditions to be arranged around the trunk of one of the large oak trees in the pond area. The boxes are to face south-east to south-west to allow the sun to fall on each box for part of the day. The boxes in that area are sheltered from strong winds and are exposed to the sun for part of the day. Their location is within a short distance to the permanent fresh water of the ponds which is considered preferable. The bat boxes will be in accordance with the RSPB design as shown in attachment 2. The boxes will be made from untreated rough sawn timber with minimum thickness of 15mm.

A photo of the oak trees is shown in attachment 3.

2.4) Installation of bird boxes

It is proposed to install two boxes. The boxes will be mounted on two different trees in the pond area. The boxes will be made in accordance with the RSPB design as shown in attachment 4. The boxes will be made from untreated timber with minimum thickness of 15mm. The outside will be treated with a water-based preservative. The entrance will be a 32mm dia hole to accommodate house sparrows and nuthatches.

2.5) Measurement of “net gain”

The general requirement is for biodiversity net gain is 10 per cent for any development. While the actual measurement of gain is somewhat difficult to assess, in the subject application of the construction of an equestrian arena on somewhat poor grazing, the gain is to be easily recognized in any case.

However, in an attempt to assess the biodiversity net gain, Natural England DEFRA’s ‘Biodiversity Metric 2.0’ can be utilized. To summarize, DEFRA uses four scored components to create an indicative score for biodiversity quality:

Distinctiveness: habitat classification (8 = very high to 0 = very low distinctiveness)

Condition: habitat type (3 = good to 1 = poor condition)

Strategic significance: (1.15 = high to 1 = low significance)

Habitat connectivity: (1.15 = high to 1 = low connectivity)

This is then used to calculate the onsite baseline score:

Baseline biodiversity units = Distinctiveness x Condition x Significance x Connectivity x Area in hectares (or length in km)

A biodiversity score is then similarly calculated for the creation of new habitats, but with the following risks taken into account.

Spatial risk: distance of offset from site

Temporal risk: time for habitats to reach target condition

Delivery risk: difficulty of habitat creation

These elements are applied to calculate the post-development score:

Post-development biodiversity units = Distinctiveness x Condition x Significance x Connectivity x Area in hectares (or length in km) / Spatial x Temporal x Delivery risks

The Biodiversity Net Gain is then the difference between the above and the baseline:

Biodiversity units created = Post development biodiversity units – Baseline biodiversity units

Applying the above to the subject development of the equestrian arena which is to be constructed on land used for a winter paddock for horses, classified for Defra metric purposes as 'Improved grassland/arable field', with an area of 0.1 hectares (40m x 25m arena), the baseline biodiversity scores are:

<i>Distinctiveness:</i>	2
<i>Condition:</i>	1
<i>Strategic significance:</i>	n/a
<i>Habitat connectivity:</i>	n/a

yielding biodiversity "habitat units" of $2 \times 1 \times 0.1 = 0.2$

The planting of the native hedgerow in the pond area of 0.08 km (80m) length,

<i>Distinctiveness:</i>	2
<i>Condition:</i>	2
<i>Strategic significance:</i>	n/a
<i>Habitat connectivity:</i>	n/a

<i>Spatial risk:</i>	1
<i>Temporal risk:</i>	1.2 (based on 5 years to develop)
<i>Delivery risk:</i>	1

yielding "hedge units" delivered of $(2 \times 2 \times 0.08) / 1.2 = 0.27$

It is noted that the pond area is less than 500m from the arena being the criteria for a spatial risk factor of 1.

Based on equating the above units, the biodiversity gain is .07 units or 35%.

Note that there is no loss of hedgerow in the construction of the arena. It is also noted that the Defra metric does not address the value of installing bird and bat boxes so these cannot be included in the calculation. As stated above, the site clearance and other work in the pond area are also not included in this assessment. Hence, the above clearly demonstrates a clear gain of biodiversity.

A photo of the area in which the arena is to be constructed is shown in attachment 5.

3.0) **Soft Landscaping Plan**

The normal 'soft landscaping' artistic representation for the proposed eco-improvements (pond area) is not applicable here. There is no formal landscaping to be done. As such, a simple map is shown in attachment 6 showing the location of the pond area relative to the equestrian arena, the proposed siting for the hedgerow planting and the position of the large oak trees in which the bird and bat boxes are to be mounted. Attachment 7 is an aerial view of the whole site prior to current clearance of undergrowth and overgrowth in the pond area for further information.

4.0 **Conclusion**

The proposals specified above details actions to be taken with respect to satisfying the conditions of biodiversity gain and an increase in ecosystems services in respect of the construction of an equestrian arena. While the metric is hard to apply to such a small scale development, it is concluded that the requirements are satisfied.

It is again noted that ongoing work and future aspirations to fully restore the ponds has not been taken into account in coming to this conclusion.

Attachment 1. – email dated 08 Jan 21 to the planning officer.

From: Louise @ Bill Kear <[REDACTED]>
Sent: 08 January 2021 11:08
To: Pang, Katherine <[REDACTED]>
Cc: Will Kear <[REDACTED]>
Subject: SDNP/20/04743/FUL

Good morning,

Further to your email regarding the planning application at Orchard Corner, please find attached photos and a marked up site plan.

Answers to your questions are below:

1. It doesn't appear that any external lighting is proposed, can you confirm that is the case. [The clients do not propose to install any lighting.](#)

2. The ecosystems services proposals needs more work not least also because there is a need for biological enhancement on site in accordance with policy. Can you draw up a specific list of proposals and translate these onto a site plan. There is a lot more which your client could commit to. For example:

- Plant native trees and shrubs such as wild cherry, dog wood, spindle, hawthorn, and crab apple (mark location and species on site plan)

[We would be happy to plant some native hedging. My first thoughts are that the area around the ponds would be the best choice of location, either on the field \(grazing area\) boundary or partly around the roadside perimeter. Particularly, on the north side, there is no roadside hedging \(see photos 6 and 8\).](#)

[The pond area will be a conservation area and, after the removal the undergrowth, overgrowth and fallen trees \(work ongoing\), it may be a suitable location. We would be happy to take advice.](#)

- Biological enhancements in the pond area (north)

[Earlier in 2020 we began to clear the pond area of fallen trees, undergrowth and overgrowth which had overcome the area even before we purchased the land in about 1985. The "ponds" were not holding water with the collapse of the retaining bank some years ago. The objective was simply to restore the ponds to beautify the locality. The area is bounded on two sides by country lanes so is visible to passers-by. It has for many years been our ambition to do this but owing to a lack of time until this last year and, with the help of our son-in-law, we commenced work.](#)

[We are not knowledgeable in matters of pond restoration or management and have been seeking advice. I spoke with, amongst others, Professor Carl Sayer at UCL who gave me some advice which included contacting the SDNP which I did, putting me in touch with Mr Chris Lickley, Ranger \(Weston Downs\). After some initial advices from him, he made a site visit and has subsequently provided two working days with some of his rangers to help clear the area and fell some of the more difficult unwanted trees. We are trying to carry on with this task following his advice. In the fullness of time, we hope to clear the sediment/silt from the larger pond area and build a suitable spillway to restore the ponds, though financing of this is likely to become an issue for us.](#)

[Some of the older local residents have expressed support for this work, remembering the ponds from years ago. The clearance work has unveiled some magnificent large oak trees which could not be seen previously.](#)

[I have attached some photos \(photos 5,6 and 7\) of the current appearance of the pond area.](#)

- Installation of bat box on existing stables (mark location on site plan)

[No doubt that we could install a bat box on the existing stable building, but it maybe that bat boxes could be better placed in the trees, either in the oak trees surrounding the pond area or elsewhere on our land. We have woodland to the southeast boundary of our land, also on the western perimeter bordering the lane \(designated "ancient" woodland\) and trees along the stream bed. I would like to seek advice from a wildlife expert in such a matter. See areas shaded in green on attached site map. Photo 7 shows the oak trees that potentially may be a suitable location.](#)

- Installation of bird box on nearby trees (mark location on site plan)

As above, we potentially have many suitable sites and I would need to seek advice as to the best locations for same.

3. The proposed arena seems to require the removal of a small trees/hedge. Please can you clarify. If trees are to be removed, these need to be marked out on a site plan, showing what is being removed. There will be a need to replace these trees and also potential result in ecological implications, so we need further clarification on this in the first instance. There is no hedgerow to be removed. The boundary between the two grazing areas is marked only by a barbed wire fence. There are no significant trees to be removed. There is a rather inelegant Elderberry or Elderflower (I do not know which) bush to be removed. There is also an apple tree which, while just outside the plot of the arena, will probably need to be removed. We are, in any case, planting a few more apple trees (see photo 8). See photos 2 and 3 which show the boundary fence to be removed..

Please let me know if you require any further information.

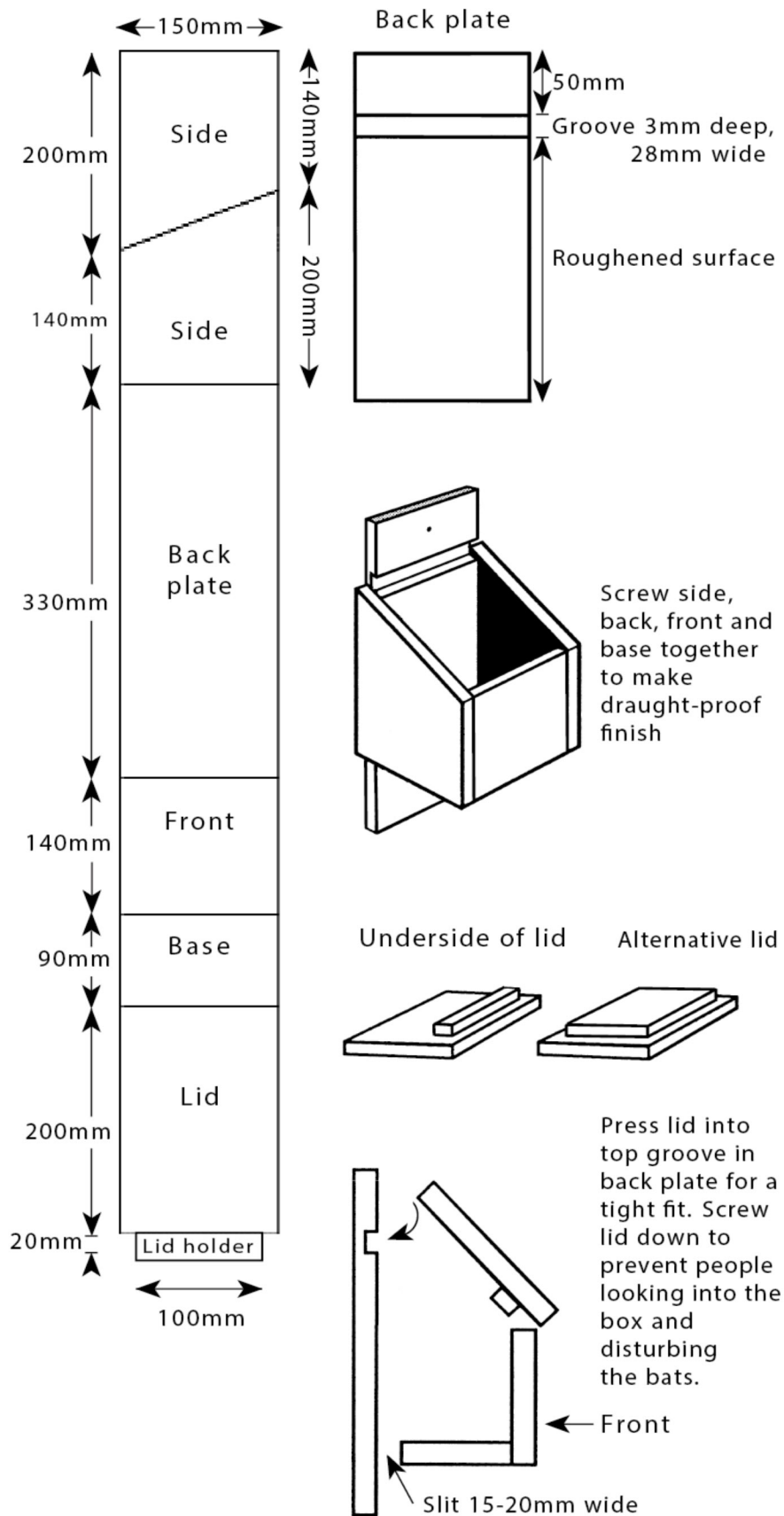
Kind regards,

Louise Davidson

Project Administrator



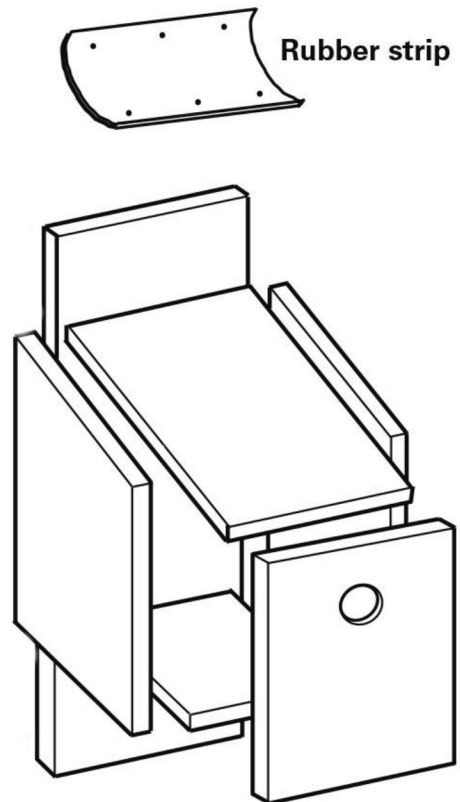
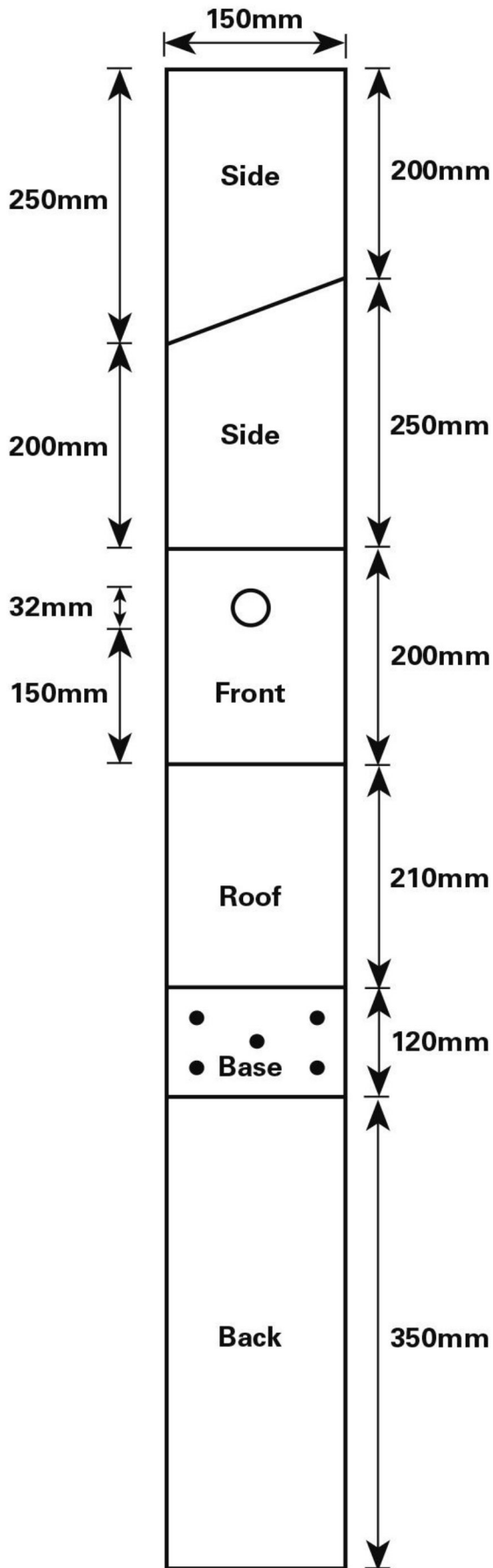
Attachment 2. Bat Box Design



Attachment 3 - Photo of Oak Trees



Attachment 4. Bird box design



Attachment 5. Photo of proposed siting of equestrian arena



Attachment 6 – Site Plan - showing location of pond area, the large oak trees and proposed planting location of native hedgerow.



Attachment 7. Aerial view of site (prior to clearance of scrub in pond area.)

