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4th March 2022

Biodiversity Net Gain Calculation for Land at Rustington Golf Centre, Rustington, West Sussex.

James Blake Associates Ltd. (JBA) was commissioned by Barratt Homes Southern Counties to provide a biodiversity net gain calculation for the proposed development at Rustington Golf Centre (Arun District Council). This statement explains how the net gain calculation was carried out, the assumptions made and the conclusions from the calculation.

Background

A biodiversity net gain calculation has been carried out using Defra Biodiversity Metric 3.0 (updated July 2021). For more information on the metric, please see [here](#).

Defra's Biodiversity Metric 3.0 provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change. The metric encompasses both area (e.g. grasslands) and linear habitats (such as hedgerows, rivers and streams). Note that 'material' enhancements for species, such as bat/bird boxes, reptile hibernacula, hedgehog 'highways' etc. cannot currently be factored into the calculation.

The habitats and linear features currently present on site are used to calculate the baseline biodiversity units; the percentage gain that the proposed development can deliver is assessed using the hard and soft landscape proposals for the development.

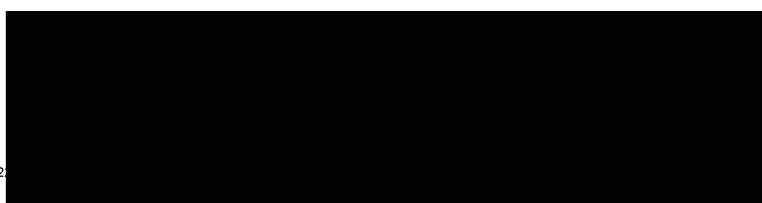
At present, national policy states '*opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity*' (NPPF, 2021). The figure of 10% net gain is sometimes regarded as the minimum but this has now been highlighted as mandatory with the emerging Environment Bill.

Methodology and Rationale

The baseline figures for the metric calculation were based on the Preliminary Ecological Assessment (PEA) undertaken by James Blake Associates in March 2021. See Appendix A for the habitat map taken from the PEA. Please note that the 'species-poor hedgerow' shown at the northern boundary of the site is outside the red-line boundary and will not be impacted by the proposed development. The area measurement for each of the baseline habitat types was made using Defra's MAGIC map: for more information about MAGIC, please see [here](#).

Baseline habitats consist of amenity grassland associated with golf courses and sections of scattered trees with a central tree line running through the centre of the site. A poor-quality artificial pond is also present towards the eastern boundary. Boundary vegetation is very fragmented with limited connectivity.

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The strategic significance of the location was checked against the 'Local Plan' of Arun. The location does not appear to be in or near to a locality mentioned in the Strategy. However, this category can be amended accordingly if required.

The areas for habitat to be retained and/or created were taken from the detailed soft landscape proposals prepared by James Blake Associates (2022).

The majority of boundary habitats will be retained and enhanced as part of the development by the planting of additional species. Due to the Emissions Mitigation Statement, a number of evergreen species has been incorporated into the planting to catch the particulates and reduce pollution. New evergreen and native trees are proposed throughout the development; a number of urban street trees have been calculated for the metric which will add biodiversity value to the scheme.

The development will also provide new habitats within the Public Open Space (POS) areas, for example, wildflower grassland and amenity grassland. Gardens within the residential areas will be turfed. Native plant species will be used where possible to create the wildflower meadow areas.

In terms of habitat creation, landscape planting schemes do not always translate directly into ecologically relevant habitat types, so the best fit for the landscape plans was selected from the draw-down menu in the metric. For example, native buffer mix on landscape plans has been categorised as 'mixed scrub' in the Defra metric.

A value of 'fairly good' has been ascribed to the potential condition that could be achieved by wildflower grassland (categorised as 'other neutral grassland' in the metric). 'Other neutral grassland' is described in UKHab (2020) classification as species-rich, semi-improved neutral grassland. A condition score of 'fairly good' has been ascribed as there is likely to be minor differences between the created grassland and what is described in the relevant habitat classification for priority grassland habitat.

A potential condition score of 'good' has been ascribed to the mixed scrub category as these areas will contain a diverse range of native shrub species, however, appropriate management will be required to ensure that there is a diverse range of age-classes present in the long-term including mature shrubs, saplings and seedlings for example. Management will also be required for all buffer mixes and canopy/sub canopy mixes to ensure conditions are met in the long-term.

Evaluation

The overall score is a gain of 18.66% for habitat units and a 221.20% gain for hedgerows/linear features. However, it is worth noting that these figures are purely from habitats/hedgerows and therefore 'material' enhancements are not included in this calculation. Although, it is recommended the proposed development includes the following enhancements;

- Bird and bat boxes to be erected onto new dwellings and retained mature trees (where possible)
- Hedgehog gaps (13cm x 13cm) to be created in garden fences to ensure small mammal movement is maintained throughout the site.
- In addition, hibernacula to benefit reptiles, amphibians etc.

Note that the final location of enhancements should be determined during construction by an Ecological Clerk of Works (ECoW).

Therefore, with 'material' enhancements the development is expected to deliver more of a biodiversity net gain for both linear and habitats.

Conclusions

Based on the detailed soft landscape plans and the current habitats identified during the PEA in 2021, it is concluded that the development can deliver a gain of 18.66% for habitat units and a 221.20% gain for hedgerows/linear features. The development is expected to deliver a further gain for habitat units when 'material' enhancements are included such as bird and bat boxes. Landscape and ecological management plans may be required to secure the potential benefits for biodiversity in perpetuity.

Yours sincerely,

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Ecologist

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References

James Blake Associates (2022) *Detailed Hard and Soft Landscape Proposals for Plots and POS for Rustington Gold Centre, Rustington*. On behalf of Barratt Homes Southern Counties. Revision C.

James Blake Associates (2021) *Preliminary Ecological Appraisal for Rustington Gold Centre, Rustington*. On behalf of Barratt Homes Southern Counties.

Appendix A. Phase 1 habitat survey

