14 March 2022

File Note – BNG Metric (Whitley Solar Park)

Site name: Whitley Solar Park, TA7 9QA

Ref: Biodiversity Net Gain Calculation

Recipients: Whitley Solar Park (Ashcott Farm) Limited

Author: Assistant Ecologist Ella Colenso, BSc (Hons)

Site background:

Quantock Ecology Limited were commissioned to undertake a Biodiversity Net Gain (BNG) Assessment on the development site at Whitley Solar Park, Somerset, TA7 9QA. An Ecological Appraisal was undertaken on site by Quantock ecology in 2022 (Quantock Ecology, 2022). The purpose of the visit was to assess the condition of the baseline habitats on site. The development proposals briefly comprise the installation of Battery Energy Storage Scheme with associated development including the installation of a new track connecting the entrance of the site to new development.

Survey and calculation results:

The Ecological Appraisal survey on the 8th February 2022, along with the calculation using the Biodiversity Metric 3.0 Calculation Tool showed that the baseline site provides 1.74 habitat units. Post intervention habitat units onsite are calculated as 1.25 habitat units. This gives a loss of -28.38% in habitat units.

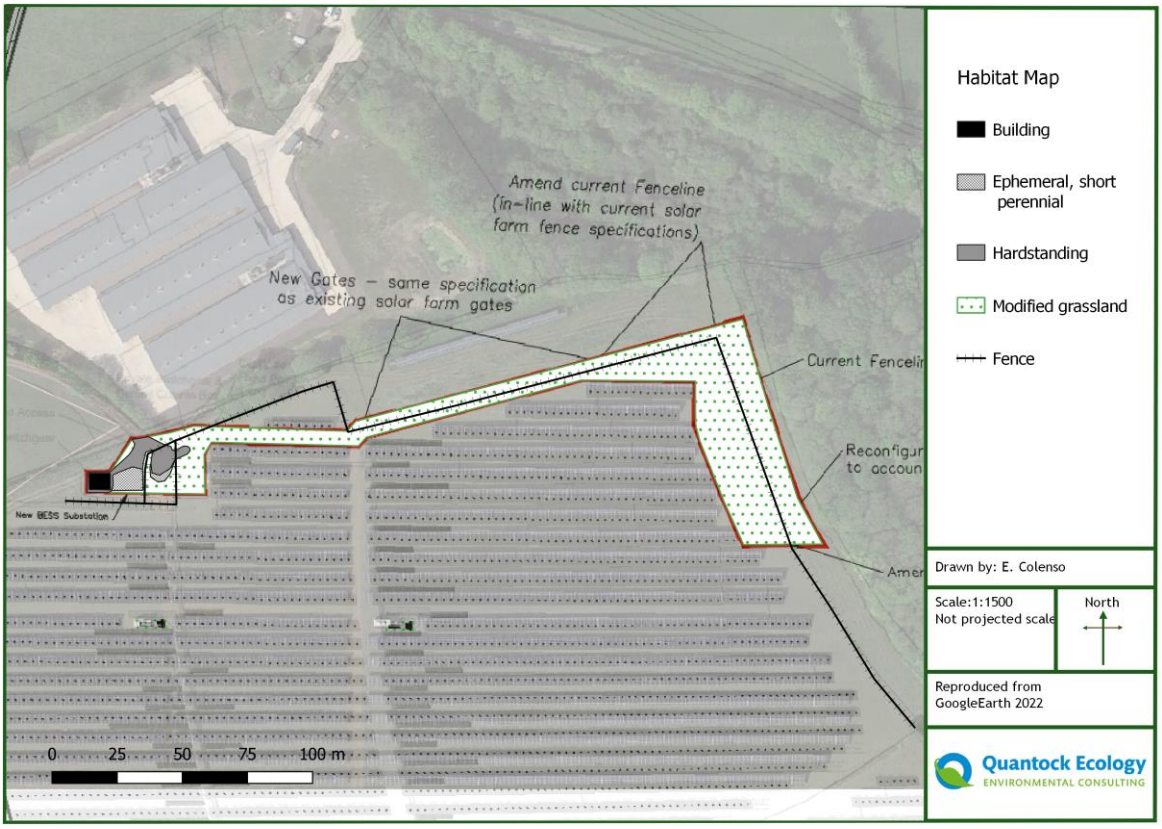
Due to the loss of habitat units onsite, offsite habitat creation has been proposed. Pre-intervention offsite habitats units were calculated as 0.52 habitat units. Post intervention produced a value of 1.24 off site habitat units. This gave a total increase of habitat units for the overall site of 13.09%. Full details can be found in file 'Biodiversity Metric 3.0 Whitley Solar Park'. See Appendix 1 and 2 for the onsite baseline and proposed habitat maps and Appendix 3 and 4 for the offsite baseline and proposed habitat maps.

The main changes to the development site include the construction of a new track linking the newly installed Battery Energy Storage Scheme to the entrance of the main site. This will be built on land in current use as grazing pasture. The offsite changes include the change of habitat from 'modified grassland' to 'other neutral grassland'. The condition of the grassland will be improved by fencing off the area and sowing it with wildflower mix such as a Lowland Meadow mix, Details of the ratio of species within this specific seed mix can be found in Appendix 5. The grassland should be allowed to flower from May to late July/August and then be harvested as hay. Grazing in autumn and spring will also help maintain and enhance flower-rich grasslands.

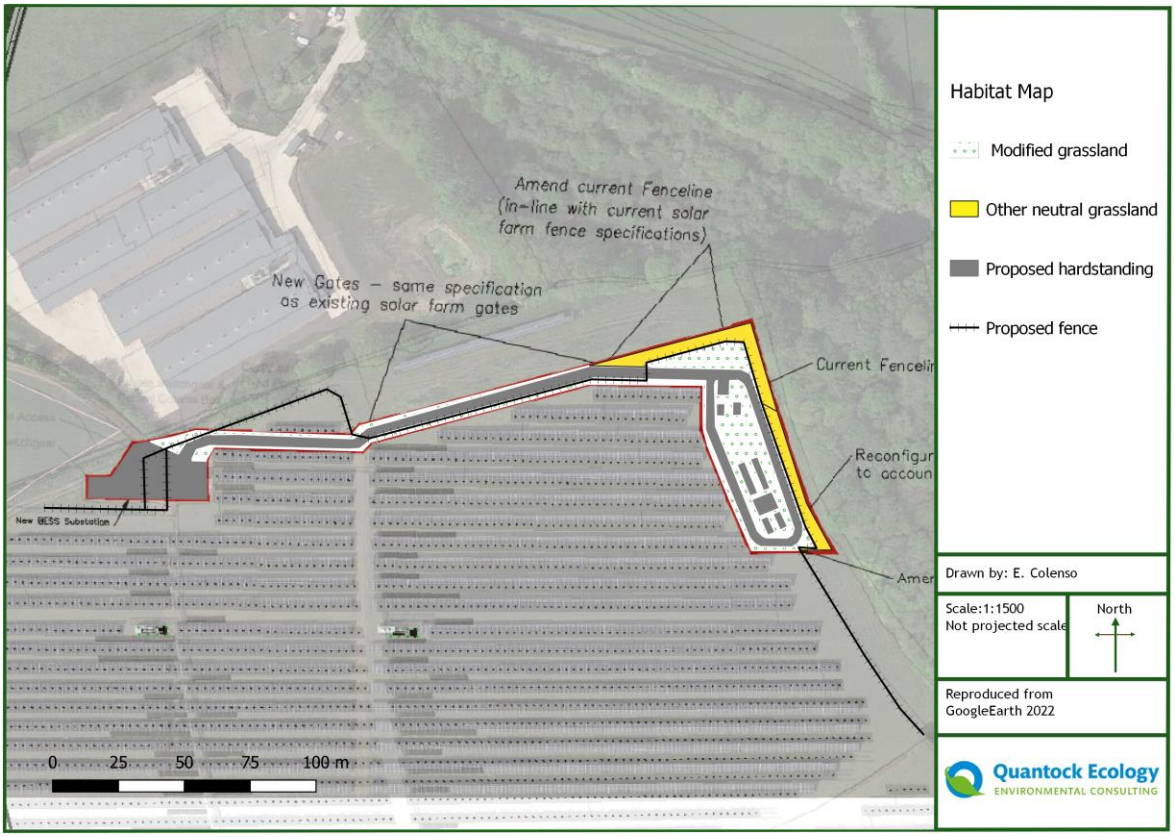
Non-habitat Enhancements:

A general purpose woodstone bat boxes such as the SCHWEGLER 2F UNIVERSAL BAT BOX (or similar) will be placed on any of the trees within the wider site's boundary. Two bird boxes comprising one SCHWEGLER 1B BIRD BOX, 32 MM HOLE and one SCHWEGLER 2H OPEN FRONT BIRD BOX (or similar) will also be erected on nearby trees.

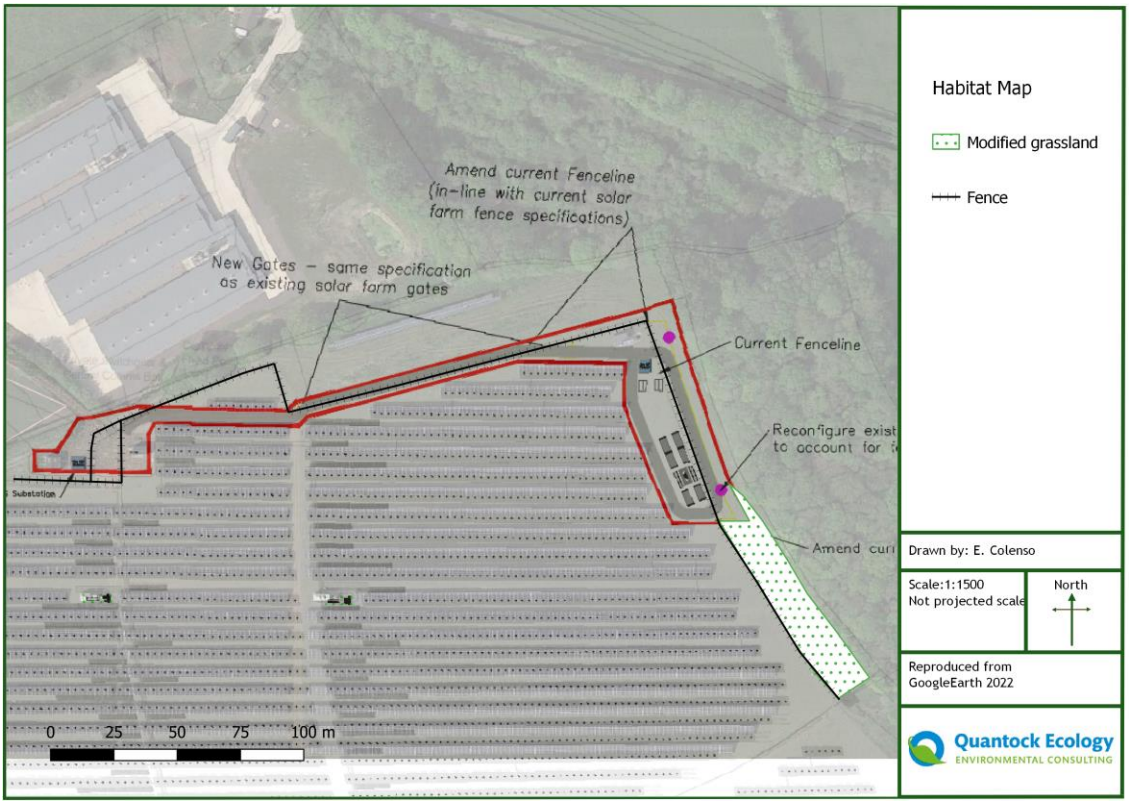
Appendix 1: Baseline Habitats (on site)



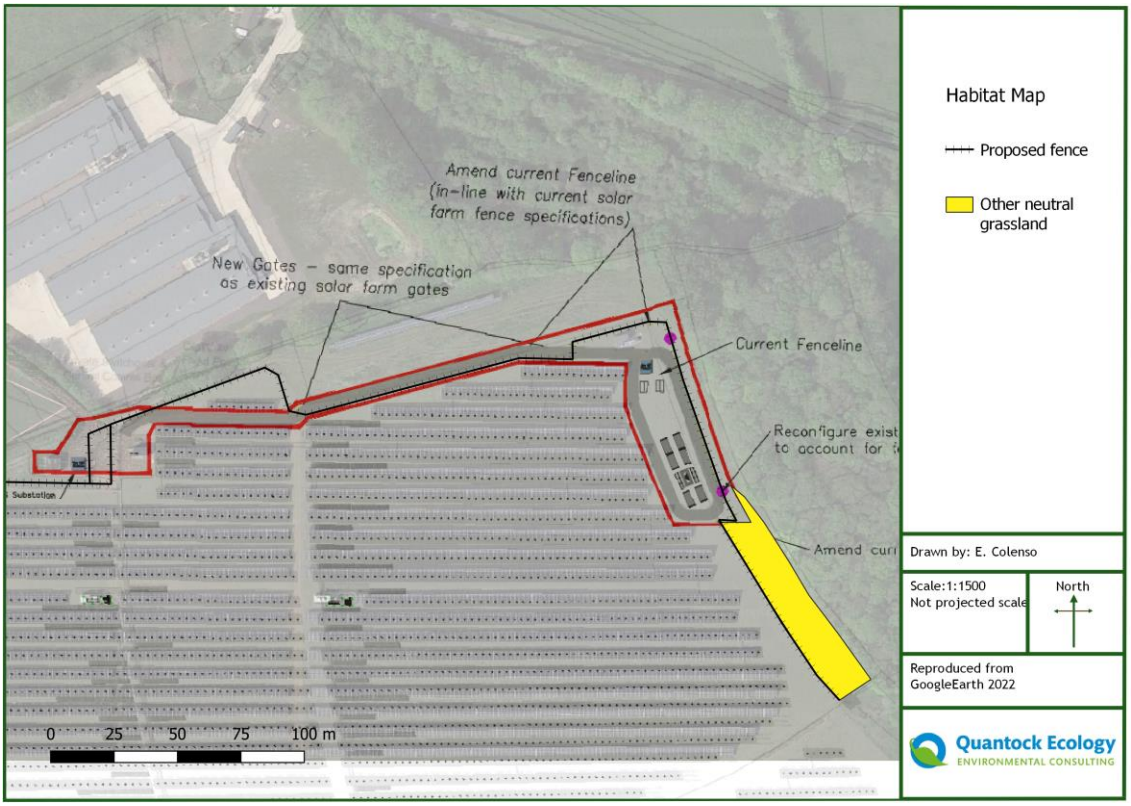
Appendix 2: Proposed Habitats (on site)



Appendix 3: Existing Habitats (off site)



Appendix 4: Proposed Habitats (off site)



Appendix 5: Ratios of Seed Mix

Product Name	RE2 (Lowland Meadow - MG9 Grassland)		
Mixture Breakdown	1.0%	Yarrow	(Achillea millefolium)
	0.5%	Meadow Sweet	(Filipendula ulmaria)
	0.5%	Lady's Bedstraw	(Galium verum)
	2.0%	Oxeye Daisy	(Leucanthemum vulgare)
	2.5%	Ribwort Plantain	(Plantago lanceolata)
	0.1%	Meadow Vetchling	(Lathyris pratensis)
	2.8%	Self Heal	(Prunella vulgaris)
	2.0%	Agrimony	(Agrimonia eupatorium)
	1.0%	Soft Rush	(Juncus effusus)
	1.5%	Dandelion	(Taraxacum officinale)
	1.3%	Red Clover	(Trifolium pratense)
	0.8%	White Clover	(Trifolium repens)
	0.5%	Pendulous Sedge	(Carex pendula)
	1.0%	Cow Parsley	(Anthriscus sylvestris)
	0.5%	Dandelion	(Taraxacum officinale)

	2.0%	Birdsfoot Trefoil	(Lotus corniculatus)
	25.0%	Slender Creeping Red Fescue	(Festuca rubra litoralis)
	10.0%	Meadow Fescue	(Festuca pratensis)
	1.0%	Browntop Bent	(Agrostis capillaris)
	6.0%	Yorkshire Fog	(Holcus lanatis)
	6.0%	Creeping Bent	(Agrostis stolonifera)
	4.0%	Meadow Foxtail	(Alopecurus pratensis)
	4.0%	Tall Oat-grass	(Arrhenatherum elatius)
	10.0%	Crested Dogstail	(Cynosturus cristatus)
	1.0%	Tufted Hair Grass	(Deschampsia cespitosa)
	5.0%	Smooth Stalked Meadow Grass	(Poa pratensis)
	3.0%	Golden Oat Grass	(Trisetum flavescens)
	1.0%	Quaking Grass	(Briza media)
	4.0%	Timothy (Small eared)	(Phleum bertolonii)

Supplier: Germinal Amenity

Web: germinalamenity.com

Tel: 01522 868714

Bibliography:

Quantock Ecology (2020) Ecological Assessment - Ecological Appraisal - Final amended