

NA1 Houghton Barton Allocation

Outline Application for Residential Development at Howton Field

Preliminary Ecological Appraisal

August 2017
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The Proposal

This report is in support of an outline application for residential development. Internal site layout and building details are reserved matters. Appendix 1 shows the Proposal Map. The site is the western corner of a pasture field, plus smaller areas nearby that are needed for road passing places and a surface water drainage connection. The overall site footprint is 0.88ha.

The site is just outside the land allocated for development at NA1. However, development of the proposed NA1 link road, which will cut across this field, will separate the western corner from the rest of the field. The western corner will then be severed from the adjacent countryside and will be more closely associated with the land proposed for development in NA1.

Methodology

A desk study was undertaken on data provided by DBRC to Teignbridge Council under a Service Level Agreement, and on other data held by the Council.

The field site was visited on 12 April, 7 June and 19 July 2017 by Mary Rush and Stephen Carroll. Phase 1 survey and species recording was undertaken during site walkover, alongside dormouse survey.

A bat survey was undertaken by Kestrel Wildlife Consultants.

Survey Limitations

The surveyors were not asked to assess the road passing places or the surface water drainage connection route.

Results

Desk Study

Bats

DBRC data and planning survey results show a number of bat species using the area around the site. These include records of greater horseshoe bat (*Rhinolophus ferrumequinum*) activity and some roosts with small numbers of GHBs.

Hazel Dormouse

The Hele Park planning application to the south returned records of hazel dormouse (*Muscardinus avellanarius*). Given the close proximity, dormouse survey was undertaken on this application site.

Great Crested Newt

The field lies wholly within a great crested newt (*Triturus cristatus*) consultation zone. The nearest ponds are 120m from the northwest tip of the field and 130m south of the southeast tip of the field. There are further ponds within 300m. There is no breeding habitat present on site, but the hedge bases could offer terrestrial habitat for this European protected species.

The nearest GCN record is from 1,200m to the northeast (recorded in 2015-16) with other records at 1,500m to the southeast (in Newton Abbot, 1990), 1,800m to the north (2005) and 2,100m to the northeast (2016).

Cirl Bunting

Cirl bunting (*Emberiza cirlus*) is a legally protected, priority species. The site offers suitable cirl bunting breeding-season habitat. No wintering habitat (arable) is present on the site.

The RSPB's 2016 National Cirl Bunting Survey maps the site as within four cirl bunting breeding territory zones. No cirl bunting site survey has been undertaken for this application, but the RSPB data indicate that one pair of cirl bunting nests within the development site itself, probably in the stretch of hedge that will be affected by the new access visibility splay. It is likely that the nesting pair defends the area immediately around their nest against use by other cirl buntings, so the development site is likely actually to support only one pair.

Other Species of Note

There are records from 2007 or earlier of barn owl (*Tyto alba*) within this 1km square. This is a legally protected, priority species.

Brown hairstreak (*Thecla betulae*), a priority species, is recorded nearby.

There is an old record of Deptford Pink (*Dianthus armeria*), legally protected, Priority Species, from the road which forms the southern boundary of the site.

Hedgehog (*Erinaceus europaeus*) may be present in the locality. It is now a priority species.

Field Study

Habitats

Appendix 2 gives the Phase 1 map and species lists for the site. This site is a semi-improved meadow, which was cut for hay in July. The majority of the sward was unremarkable with about half a dozen grasses identified and low herb cover. However, higher herb density and diversity was present around the field edges, close to hedge bases, where agricultural improvement activities may not have been so concentrated. For example, meadowsweet (*Filipendula ulmaria*) and common bird's-foot trefoil (*Lotus corniculatus*) were found in this strip.

All four hedges were rich in woody species and qualified as Important under the Hedgerow Regulations 1997. The bases of hedges supported a diverse flora with some indicators of unimproved grassland (agrimony *Agrimonia eupatoria*, black knapweed *Centaurea nigra*, meadow vetchling *Lathyrus pratensis*, crosswort, *Galium cruciata* and meadowsweet). Some areas supported dog's mercury (*Mercurialis perennis*) and bluebell (*Endymion non-scriptus*, an ancient woodland indicator species). Rabbit (*Oryctolagus cuniculus*) burrows were widespread. All hedges appeared to be managed by trimming, mostly to around 2m high. The south eastern hedge was slightly taller, while under trees in the north eastern corner the hedge under some young ash trees was extremely short and sparse. There was a relatively high proportion of English elm and of holly in the hedges.

Young ash (*Fraxinus excelsior*) standards were present in two stretches of hedge. Of particular note was a mature ash standard in the northern corner of the eastern hedge, which contained cracks which might support roosting bats. This tree was outside the application footprint.

Bats

The application site offers no possible bat roost locations. Bat activity surveys were undertaken by Kestrel Wildlife Consultants - the survey report is submitted separately as an Appendix to this document. Greater horseshoe bats associated with the South Hams SAC use the hedges as flight paths and probably forage in the field. See Appendix 3 for a summary of greater horseshoe bat activity in the area. The northern hedge particularly is seen to be used by this species. There is therefore potential to impact on the South Hams SAC and a Habitat Regulations Assessment may be needed. Other bat species will also use the site.

Hazel Dormouse

A dormouse tube survey is underway and results will be reported separately. Initial survey results indicate the species is present on site, so the mitigation hierarchy must be applied. As stretches of hedge are to be removed for the link road to cross the site, an EPS licence is likely to be required from Natural England.

Birds

Skylark (*Alauda arvensis*) was heard singing over the site on the first visit. It is possible that this (ground nesting) red list species breeds in the open field area, prior to hay cutting. Additionally, a small number of common bird species were noted on, near, or flying over, the site. Some of these species may nest in the site's hedges.

Reptiles

There is some, limited, habitat suitable for slow-worms (*Anguis fragilis*) in the base of hedges. Presence should be assumed.

Badgers

Some limited signs of badger (*Meles meles*) activity were noted (trails and digging activity) which indicate that the site is part of a badger territory. No sett was observed on site.

Impacts

This section refers only to impacts of onsite activities. It does not address impact from the three passing bays and the surface water disposal route.

Hedges

A 22 metre stretch of hedge will be affected around the existing gateway to create road access and visibility splays. The remaining hedges will be retained.

Grassland

The footprint of the development will result in the loss of approximately 0.5 ha of species poor semi-improved grassland. The more species-rich grassland is located around the edge of the field, associated with the hedges. Much of this will be retained within hedge buffer zones, but a proportion of this will be lost to SUDS, surfaced paths and play area. The habitat to either side of the existing access, which will be lost to creation of the access road, is of species-poor semi-improved grassland.

Bats including South Hams SAC and greater horseshoe bats

Greater horseshoe bats navigate the countryside by following hedges and other linear features, and remain within a few metres of them when feeding on insects 'generated' in adjacent land. They rarely cross gaps of more than a few metres. They are also extremely light-averse and will avoid areas lit to a level brighter than moonlight.

Creation of the visibility splay could effectively remove at least 22m of hedge flyway, preventing greater horseshoe bats from using this route. The development will result in the loss of 0.5ha of prey-generating land, so reducing the prey available. Light from the development could spill onto the hedges and adjacent grassland and deter the bats from using them. A Habitat Regulations Assessment will be needed for impacts on the South Hams SAC and suitable mitigation provided.

Other species of bat will also lose foraging habitat and may be deterred by increased light levels.

Hazel Dormouse

Works to enhance the site access and create visibility splays will entail impacts on dormouse habitat. The development is likely to result in the introduction of cats to the area – domestic cats are known to prey on this species.

Cirl Bunting

Depending on the location of their nest, the site's cirl buntings may be directly affected by temporary loss of nest site during works to create a visibility splay, or less directly affected by disturbance during works. They will also lose 0.5ha of summer foraging habitat immediately adjacent to the nest site. The retained hedge buffer zone will become more disturbed by human activity and domestic cats may predate the birds. Site clearance and building works may cause disturbance to nesting cirl buntings, which is prohibited under the Wildlife and Countryside Act.

Other Birds

There is potential to impact various other bird species if vegetation clearance is undertaken during the breeding season (1 March to 31 August).

Great Crested Newt

No breeding habitat will be affected. The development will result in the loss of a small area of potential great crested newt terrestrial habitat, where the gateway is widened. However, new gardens are likely to provide more habitat than will be lost.

Reptiles

The development will result in the loss of a small area of potential reptile habitat where the gateway is widened. However, new gardens are likely to provide more habitat than will be lost.

Badgers

The development will result in the loss of 0.5ha of grassland used by badgers as foraging territory. However, this is a small proportion of the average badger territory and the badgers may still forage in gardens in the completed development.

Other Species

The only nesting or roosting opportunity for barn owl would be in the mature ash tree which may contain large holes or splits. This is well outside the development area, so will not be damaged and disturbance is unlikely. Under current management the site provides little or no foraging habitat for this species.

The hedges are to be retained, however, under current management they provide little or no suitable breeding habitat for Brown hairstreak.

It is possible that works will bring buried Deptford pink seeds to the surface, where they may germinate. Continued works could then result in illegal destruction of Deptford pink plants.

Mitigation

This section refers only to mitigation for onsite development. It does not address mitigation for the three passing bays and the surface water disposal route.

Timing

The facilitating developer should undertake site and species clearance, works to hedges beside the site access and provision of mitigation, compensation and off-plot enhancement measures up-front, before sale of plots. Biodiversity measures will thus be ensured in advance, and plot purchasers will not be burdened with them.

Ongoing management

The hedges, buffer zones and SUDS should be retained in public ownership or owned by a management company. They should be managed according to a Landscape and Ecological Management Plan (LEMP), which should be conditioned.

Hedges

Avoidance of harm to the majority of existing boundary hedges is proposed: they will be retained in situ together with a buffer zone. However, creation of the new road access and visibility splays will mean approximately 22 metres of hedge will be affected. Visibility splays should be achieved by moving the whole hedge (i.e. bank and roots) to the back of the visibility splay. The hedge can then be managed to be tall and bushy, as required for legally protected bats and dormice. The alternative (keeping the hedge cut down to 800mm), is not acceptable as this will interrupt the flight paths of greater horseshoe bats associated with the South Hams SAC, as well as impacting other bats and dormice. Moving of the hedge should follow best practice.

All the boundary hedges should be retained in public ownership/owned by a management company. They should be managed to maximise their wildlife value, especially in relation to greater horseshoe and other bats and dormice, according to a LEMP.

Species-poor semi-improved grassland

There will be a loss of approximately 0.5 ha of this habitat. Some will be retained within the hedge buffer zones. Compensation for the loss of this habitat is addressed in the off-setting section.

Species-rich semi-improved grassland

Avoidance of harm to the majority of the species-rich semi-improved grassland is proposed: it will be retained in situ within the hedge buffer zone. However, there will be a small loss of this habitat to SUDS, surfaced path and play areas. The SUDS should be managed to create wetland and/or marshy grassland habitat. Compensation for the loss of semi-improved grassland is addressed in the off-setting section.

Bats

Hedge removal will be avoided. At the visibility splay, the hedge should be moved and maintained, rather than left in situ and kept short. This will enable horseshoe and other bats to continue to follow this route through the landscape.

A 10m wide buffer zone will be retained between the hedges and the edge of the development. This area will be managed for biodiversity, especially to generate prey for greater horseshoe and other species of bat. Informal public access will be allowed in this area, but management for biodiversity will be the primary aim. The only development in this area will be SUDS, a surfaced path and some children's play equipment. Gardens will not be positioned within the buffer zones. Management of the area for GH bats and other wildlife will be detailed in a LEMP.

No lighting will be positioned within the buffer zone and a Lighting Scheme will be developed to ensure that a light level of 0.5 lux maximum will be achieved at 5m from the face of the hedges. The scheme shall be developed in partnership with a lighting engineer and professional bat worker. It will address light from all sources, including house windows, security lights, street lights and vehicle headlights. The Lighting Scheme should be conditioned.

Protective measures during the construction phase will include erection of protective fences around the buffer zones, work restricted to daylight hours and no lights to be left on at night.

Dormouse

The 22m of hedge beside the access should be moved to the back of the visibility splay, to avoid permanent reduction in quality of dormouse habitat.

To avoid potential harm to nesting dormice whilst moving the hedge, these sections should be cut back/coppiced during the winter period. The hedge bank will then be subject to a finger-tip search for hibernation nests by a licenced dormouse worker. If a hibernation nest is found it will be removed to a suitable, safe stretch of hedge away from the site access. The hedge should then be moved in sections to the new location. A European Protected Species Licence will probably be required for this procedure.

The retained hedges should be managed to maximise their wildlife value, especially in relation to dormice, greater horseshoe and other bats, according to a LEMP. This should include a limited cutting regime management which allows the hedges to grow taller and wider.

Cirl buntings

Retention and enhanced management of hedgerows and buffer grassland area will minimise impacts on cirl bunting breeding territories. Detailed mitigation and compensation proposals will be agreed with the Local Planning Authority in light of emerging TDC/DCC guidance.

Great Crested Newt and Reptiles

To avoid potential harm to reptiles and great crested newt, the stretches of hedge scheduled for moving will be checked for newts and reptiles by the ecologist, at the same time that they are checked for dormouse. If any hibernating newts or reptiles are found they will be removed to a suitable, safe stretch area away from the development site and already prepared for the purpose. A European protected species licence will not be required as the likelihood of finding great crested newt is very small.

Nesting birds

To avoid potential harm to nesting birds, hedge works and grassland clearance should take place outside the bird nesting season: 1 March to 15 September. The season is extended because of presence of ciril buntings which have a long nesting period. Grassland clearance is included because of the presence of skylark, a ground nesting priority species.

Badgers

Immediately prior to commencement of site clearance or other works, the hedge bases should be rechecked for badger setts. If any are found, the badger licencing procedure shall be followed, to avoid any unlicensed prohibited activities occurring within key distances of the sett.

To avoid risk of badgers (or hedgehogs) becoming trapped in excavations, these shall be covered at night, or sloping planks lowered in to offer an escape route.

Other Species

Current hedge and grassland management should continue until site clearance commences. This will prevent barn owl and brown hairstreak breeding habitat from developing.

Areas of bare soil will be periodically examined by an ecological professional to ascertain possible presence of young Deptford pink plants. If any are found, work in that area will be halted and Natural England will be consulted regarding translocation of the plants.

CEMP

A Construction Environment Management Plan (CEMP) should detail all the precautions needed during the construction phase (and should be conditioned, along with a LEMP). These will include: protection of buffer zones and hedges by erection of protective fencing prior to any works including site clearance; during the active bat season work will commence at least 30 minutes after sunrise and finish at least 30 minutes before sunset; and no lights to be left on at night.

Biodiversity Offsetting

Despite the proposed avoidance and onsite mitigation and compensation measures, the development proposals would result in an overall small net loss in biodiversity on the site.

An initial assessment of the likely impacts of the development on habitats has been undertaken based on the Defra biodiversity offsetting metric. This has been carried out in accordance with the draft interim [South Devon Biodiversity Offsetting Guidance](#) and using the calculator developed by [Warwickshire County Council](#). This is based on the following assumptions and with reference to the plan in Appendix 4:

1. Conditions are assumed on the basis of expert opinion. A Farm Environment Plan condition assessment has not been carried out.
2. The existing length of hedgerows will be retained and their condition enhanced through positive management.
3. Up to 300m² of the existing area of grassland (50% SI, 50% PSI) will be lost to SuDs features.
4. The SuDS features will be designed to achieve high Distinctiveness habitats including permanently wet ponds and periodically wet species rich grassland.
5. The small areas of tall ruderal vegetation, bracken and scattered scrub will be lost and semi-improved neutral grassland created.
6. An area of at least 200m² of PSI to be retained in current condition and used as amenity greenspace.
7. The remaining 5,000m² of PSI will be lost, replaced by development including approximately 500m² of gardens.

The calculation shows that the proposals and above assumptions would result in a small net residual loss of 0.94 area units and gain of 1.03 linear units (see screen shots in Appendix 4).

This calculation is based on the information available at this stage. It should be revised at outline application stage based on emerging cirl bunting mitigation/compensation proposals and on detailed information at the reserved matters stage as part of the Landscape and Ecological Management Plan.

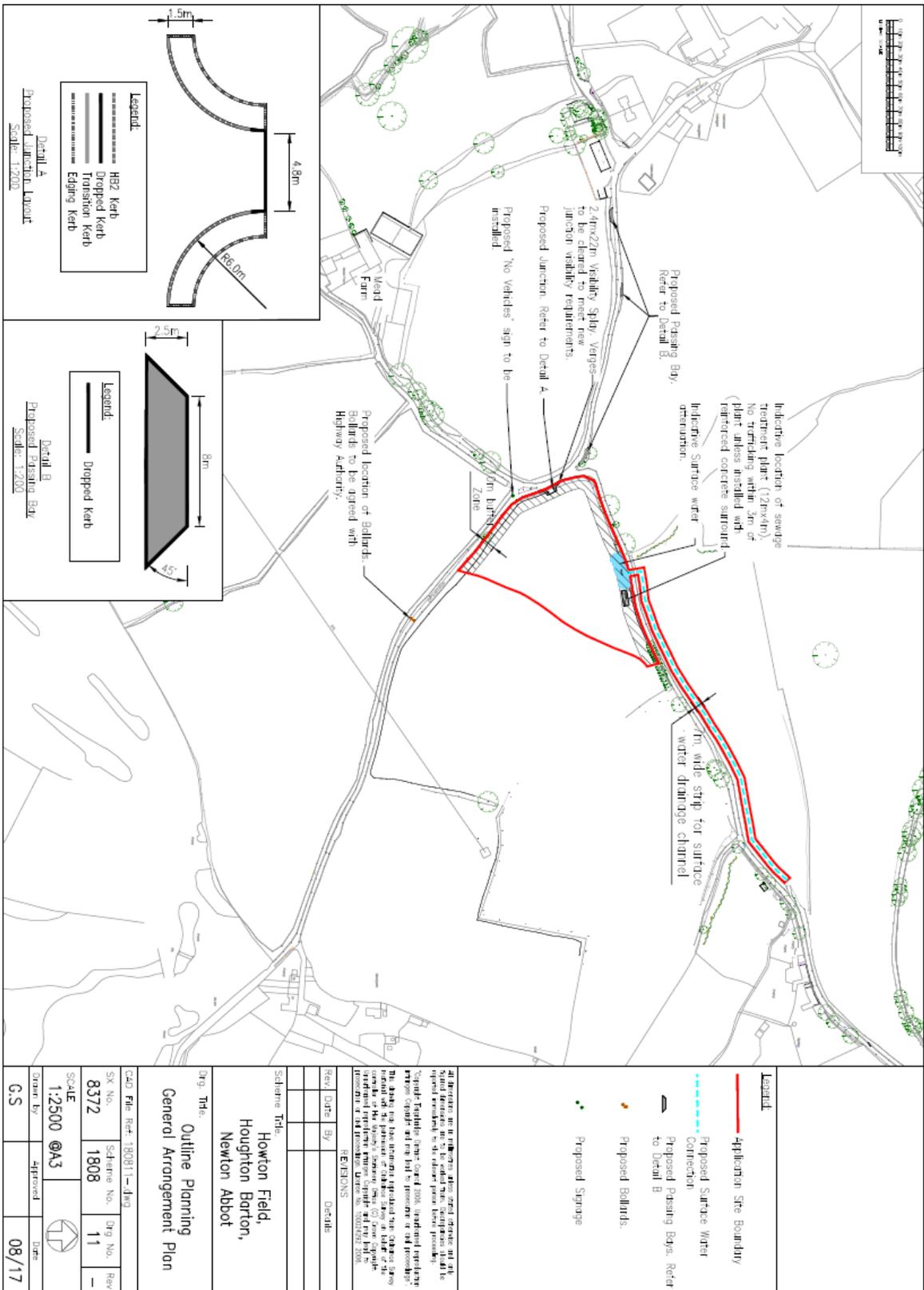
On-site Biodiversity Enhancements

In line with NPPF, in addition to avoidance, mitigation and compensation measures, the following biodiversity enhancement measures should be incorporated:

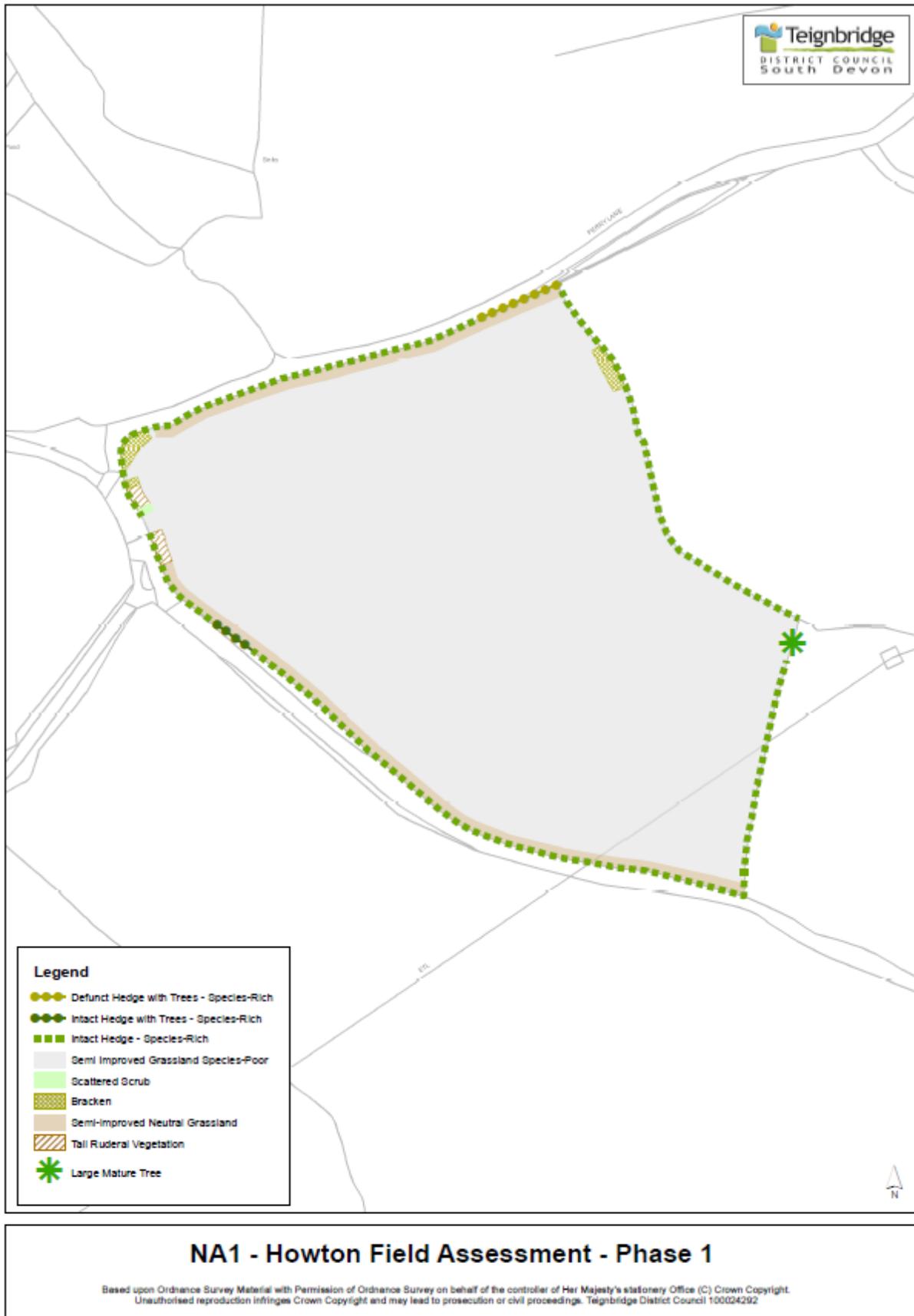
- The SUDS should be designed and managed to create wetland and/or marshy grassland habitat.
- Integral bird nesting and bat roosting boxes should be included in the custom-build dwellings at a rate of one of each per dwelling.
- Dormouse boxes should be installed within the existing hedges at a rate of one per ten metres.
- Newt hibernacula and reptile basking sites should be created in the hedge buffer zones (a minimum of six in total).
- All curtilage boundaries should be created with suitable gaps to allow hedgehogs to move between gardens.
- Amenity planting should be of wildlife-friendly species which provide nectar, berries, caterpillar food-plants and nesting opportunities.

Appendices

Appendix 1 – Proposal Map



Appendix 2a - Phase 1 Map



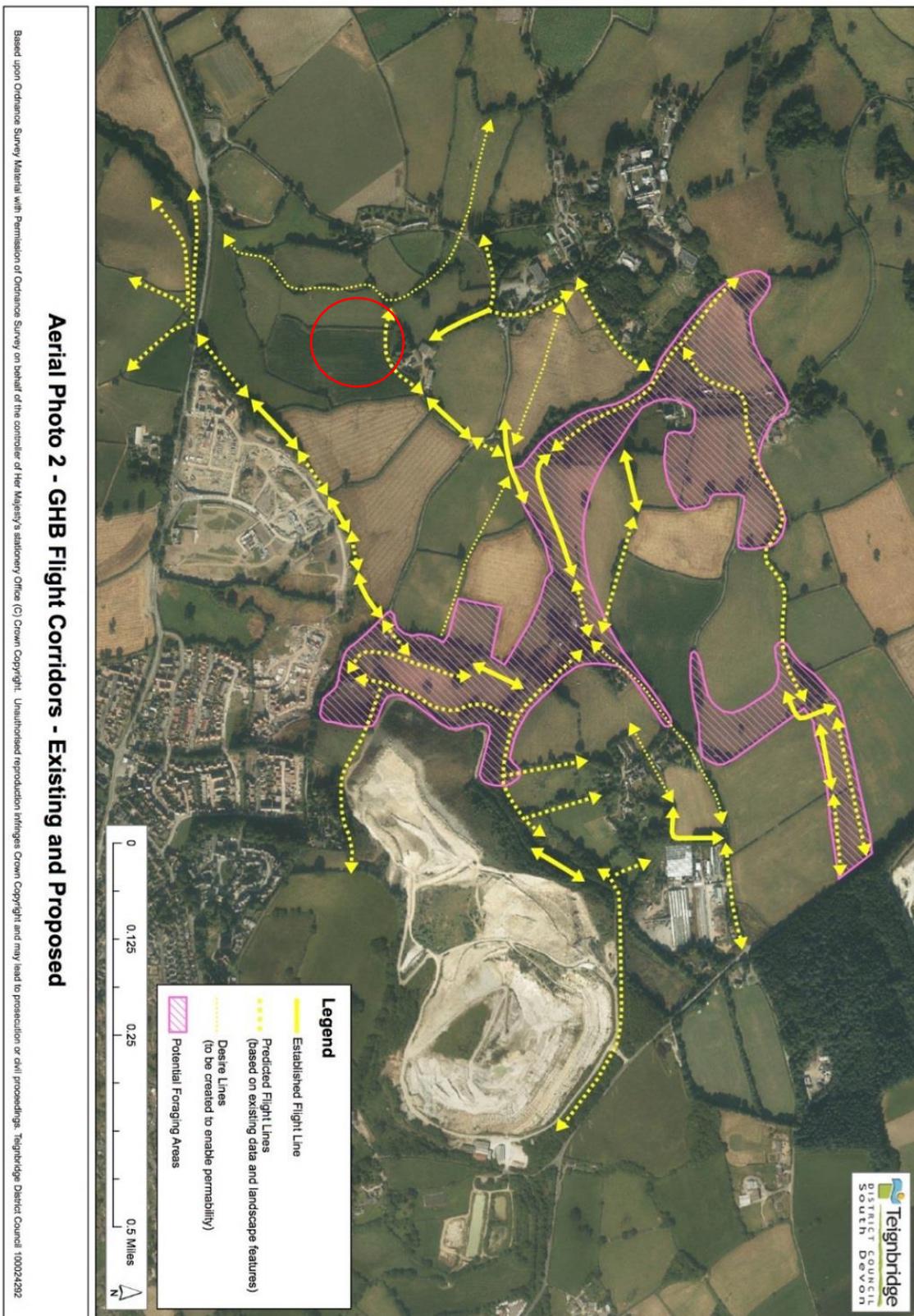
Target Notes

- 1 – Small areas of bare ground, tall grass and ‘ruderal’ vegetation, where bales were stored, to either side of the road entrance. Also some ingress of blackthorn suckers and bramble.
- 2 – Strips of more herb rich grassland alongside hedges.
- 3 – Mature ash tree with bat roost potential
- 4 – Young ash standards
- 5 – Rough locations of tubes showing start of dormouse nests

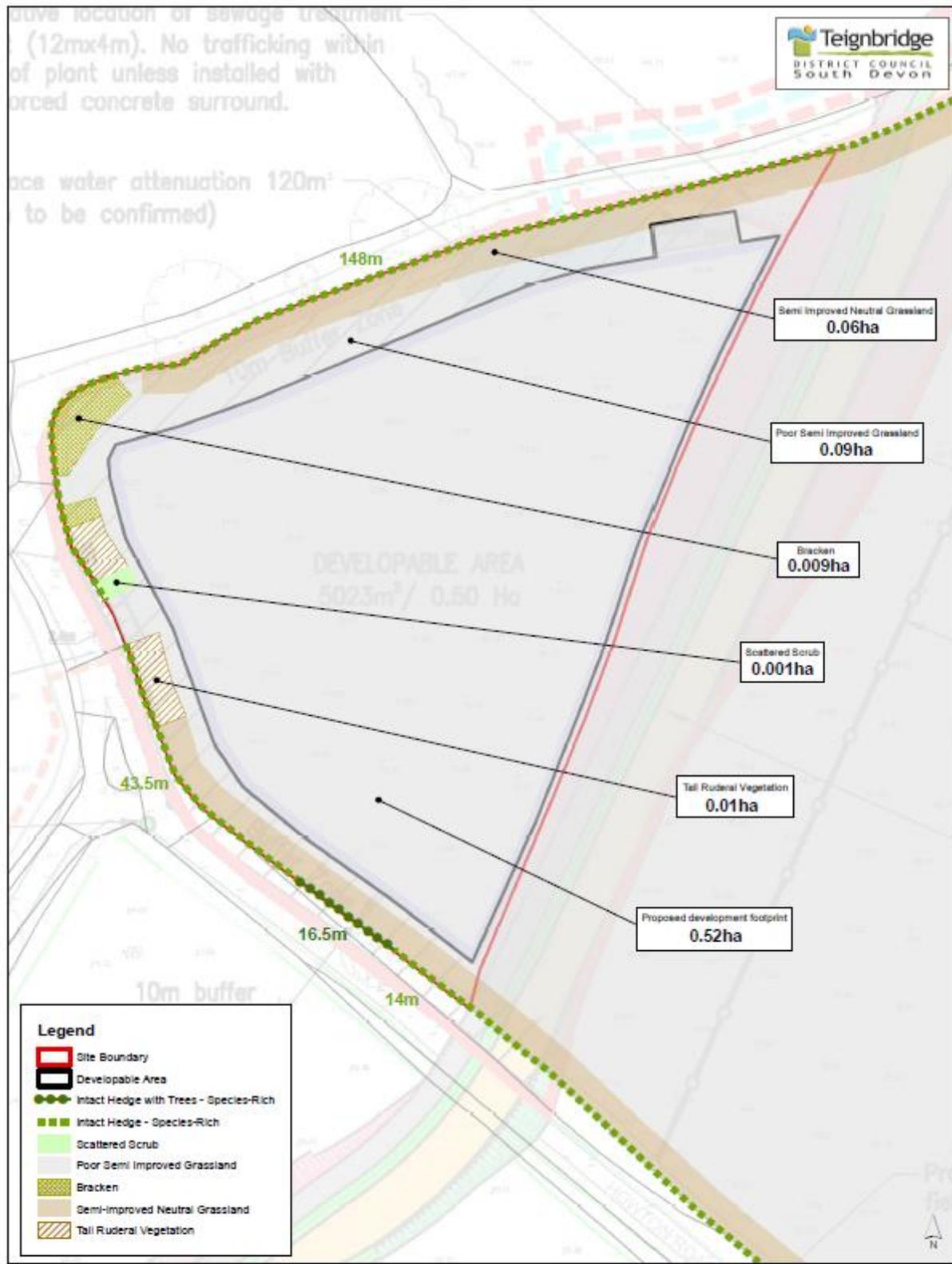
Appendix 2b - Plant Species List and Incidental Faunal Records

English Name	Scientific Name	Abundance
Field - Herbs		
Yarrow	<i>Achillea millefolium</i>	R
Lady's smock	<i>Cardamine pratensis</i>	R
Cut-leaved crane's-bill	<i>Geranium dissectum</i>	R
Field woodrush	<i>Luzula campestris</i>	O, LF
Ribwort	<i>Pantago lanceolata</i>	LF
Bulbous buttercup	<i>Ranunculus bulbosus</i>	LOF
Meadow buttercup	<i>Ranunculus acris</i>	OF
Creeping buttercup	<i>Ranunculus repens</i>	OF
Common sorrel	<i>Rumex acetosa</i>	OF
Dandelion	<i>Taraxacum agg</i>	O
White clover	<i>Trifolium repens</i>	OR
Red clover	<i>Trifolium pratense</i>	OR
Lesser trefoil	<i>Trifolium dubium</i>	R
Bird's-foot trefoil	<i>Lotus corniculatus</i>	LA around edges
Field - grasses		
Bent	<i>Agrostis sp.</i>	F
Meadow foxtail	<i>Alopecurus pratense</i>	F
Sweet vernal grass	<i>Anthoxanthum odoratum</i>	F
Red fescue	<i>Festuca rubra</i>	F
Yorkshire fog	<i>Holcus lanatus</i>	F
Ryegrass	<i>Lolium perenne</i>	F
English Name		
Scientific Name		
Hedges		
Woody Species		
Field Maple	<i>Acer campestre</i>	
Hazel	<i>Corylus avellana</i>	
Hawthorn	<i>Crataegus monogyna</i>	
Spindle	<i>Euonymus europaeus</i>	
Ash	<i>Fraxinus excelsior</i>	
Ivy	<i>Hedera helix</i>	
Holly	<i>Ilex aquifolium</i>	
Honeysuckle	<i>Lonicera periclymenum</i>	
Blackthorn	<i>Prunus spinose</i>	
English oak	<i>Quercus robur</i>	
Field rose	<i>Rosa arvensis</i>	
Dog rose	<i>Rosa canina</i>	
Bramble	<i>Rubus fruticosus agg</i>	
Elder	<i>Sambucus nigra</i>	
English elm	<i>Ulmus procera</i>	
Hedge bases		
Yarrow	<i>Achillea millefolium</i>	
Agrimony	<i>Agrimonia eupatoria</i>	
Cow parsley	<i>Anthriscus sylvestris</i>	
Lords-and-ladies	<i>Arum maculata</i>	
Wood false-brome	<i>Brachypodium sylvaticum</i>	
Black knapweed	<i>Centaurea nigra</i>	
Creeping thistle	<i>Cirsium arvense</i>	
Spear thistle	<i>Cirsium vulgare</i>	
Wild basil	<i>Clinopodium vulgare</i>	
Pignut	<i>Conopodium majus</i>	

Appendix 3 - Greater Horseshoe Bat Activity



Appendix 4 - Biodiversity Offsetting



NA1 - Howton Field Assessment - Areas

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Existing habitats on site Please enter all habitats within the site boundary										Habitat Biodiversity Value					Comments
I.Habit code	Phase/habitat description	Habitat area (ha)	Distinctiveness Score	Habitat condition		Habitats to be retained with no change within		Habitats to be retained and enhanced within		Habitats to be lost within development					
				Score	Condition	Score	Length (km)	Existing value	Score	Length (km)	Existing value	Score	Length (km)		
Direct Impacts and retained habitats															
B6	Grassland/Poorly improved grassland	0.52	Medium-Low	3	Poor	1	0.02	0.06	0.03	0.23	0.02	0.50	1.50	lost to development	
B6	Grassland/Poorly improved grassland	0.09	Medium-Low	3	Poor	1			0.05	0.19	0.02	0.05	0.05	same enhanced as same lost to garden	
B22	Grassland/Semi-improved neutral grassland	0.04	Medium	4	Poor	1								lost to road	
C31	Other/Continuous bracken	0.01	Low	2	Poor	1								lost to S1	
C31	Other/Tall ruderal	0.01	Medium-Low	3	Poor	1								lost to S1	
A22	Woodland/Scattered scrub	0.00	Medium	4	Poor	1								lost to S1	
Total		0.67					0.02	0.04	0.12	0.41	0.05				
Total habitat biodiversity value											TD+ZF+TH	2.16			

Proposed habitats on site (Onsite mitigation)										Target habitat condition		Time till target condition		Difficulty of creation / restoration		Habitat Biodiversity value (N+O+P) / Q/R	Comments	
I.Habit code	Phase/habitat description	Area (ha)	Target habitat distinctiveness		Target habitat condition		Time	Score	Difficulty	Score	N	O	P	Q	R			
			Score	Condition	Score	Condition												
Habitat Creation																		
M6	Built Environment/Buildings/Overstanding	0.05	None	0	Poor	1	5 years	12	Low	1							0.00	
M6	Built Environment/Garden (low and planting)	0.05	Low	2	Poor	1	5 years	12	Low	1							0.05	StuDS feature called out under this budget line
B5	Grassland/Marsh/Marshy grassland	0.03	High	6	Good	3	5 years	12	High	3							0.15	created from small area of scrub
B22	Grassland/Semi-improved neutral grassland	0.00	Medium	4	Moderate	2	5 years	12	Medium	1.5							0.00	created from low of bracken and tall ruderal
B22	Grassland/Semi-improved neutral grassland	0.02	Medium	4	Moderate	2	5 years	12	Medium	1.5							0.02	
Total		0.15																
Habitat Enhancement																		
B22	Grassland/Semi-improved neutral grassland	0.05	Medium	4	Moderate	2	5 years	12	Low	1							0.15	remaining area of S1 enhanced through passive management
B22	Grassland/Semi-improved neutral grassland	0.00	Medium	4	Moderate	2	5 years	12	Low	1							0.31	remaining area of S1 enhanced through passive management
Total		0.12																
Trading down correction value											-0.01							
Habitat Mitigation Score (HMS)											0.72							
Habitat Biodiversity Impact Score											0.24		Loss					
Percentage of biodiversity impact loss											55.58							

KEY	
No action required	
Action required	
Drop-down menu	
Calculation	
Automatic lookup	
Overall Result	Loss to biodiversity
	Gain to biodiversity

KEY	
No action required	
Action required	
Drop-down menu	
Calculation	
Automatic lookup	
Result	

Linear Features
Hedges and other linear features can offer a higher biodiversity value per length than a standard area of habitat due to factors such as connectivity and must therefore be compensated for in parallel to the standard metric.

Please do not edit the formulae or structure. To condense the form for display hide vacant rows, do not delete them. If additional rows are required, or to provide feedback on the calculator please contact VCC Ecological Services

Existing linear features on site										Linear Biodiversity Value					Comments
code	Phase/habitat description	Length (km)	Linear distinctiveness		Linear condition		Linear features to be retained with no change within		Linear features to be retained and enhanced within		Linear features to be lost within development				
			Score	Condition	Score	Length (km)	Existing value	Score	Length (km)	Existing value	Score	Length (km)			
Direct Impacts and retained features															
J211	Hedges: Native species rich intact hedge	0.21	High	6	Poor	1			0.21					assumes poor condition of short and narrow hedges	
J231	Hedges: Native species rich hedge with trees	0.02	High	6	Moderate	2	0.02	0.20						assumes no change	
Total		0.23					0.02	0.20	0.21	1.23	0.00	0.00			
Total Linear Biodiversity Value											TD+ZF+TH	1.16			

Proposed linear features on site (Onsite mitigation)										Target linear condition		Time till target condition		Difficulty of creation / restoration		Linear Biodiversity value (N+O+P) / Q/R	Comments	
code	Phase/habitat description	Length (km)	Target linear distinctiveness		Target linear condition		Time	Score	Difficulty	Score	N	O	P	Q	R			
			Score	Condition	Score	Condition												
Linear Creation																		
Total		0.00																
Linear Enhancement																		
J211	Hedges: Native species rich intact hedge	0.21	High	6	Moderate	2	1.23	5 years	12	Low	1						1.03	improve the condition by either allowing to grow above 2m tall or width. Ideal
Total		0.21																
Trading down correction value											0.00							
Linear Mitigation Score (LMS)											1.03							
Linear Biodiversity Impact Score											1.03		Gain					
Percentage of linear impact loss											0.00							

KEY	
No action required	
Action required	
Drop-down menu	
Calculation	
Automatic lookup	
Overall Result	Loss to biodiversity
	Gain to biodiversity

Biodiversity Impact Assessment Summary

Site name:	Houghton Field
Planning reference number:	tbc

Habitats	Area (ha)	Habitat Biodiversity Value
Total existing area onsite	0.69	2.12
Habitats negatively impacted by development		
Habitat Impact Score	0.55	1.66
On site habitat mitigation		
Habitat Mitigation Score	0.67	0.72
Habitat Biodiversity Impact Score		
If -ve further compensation required		-0.94
Percentage of biodiversity impact		56.58
Linear features	Length (km)	Linear Biodiversity Value
Total existing length onsite	0.22	1.43
Linear features negatively impacted by development		
Linear Impact Score	0.00	0.00
On site linear mitigation		
Linear Mitigation Score	0.21	1.03
Linear Biodiversity Impact Score		
If -ve further compensation required		1.03
Percentage of linear biodiversity impact		